

**ONLINE ENGLISH LEARNING SYSTEM
FOR NOVICES**

BY

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A REPORT

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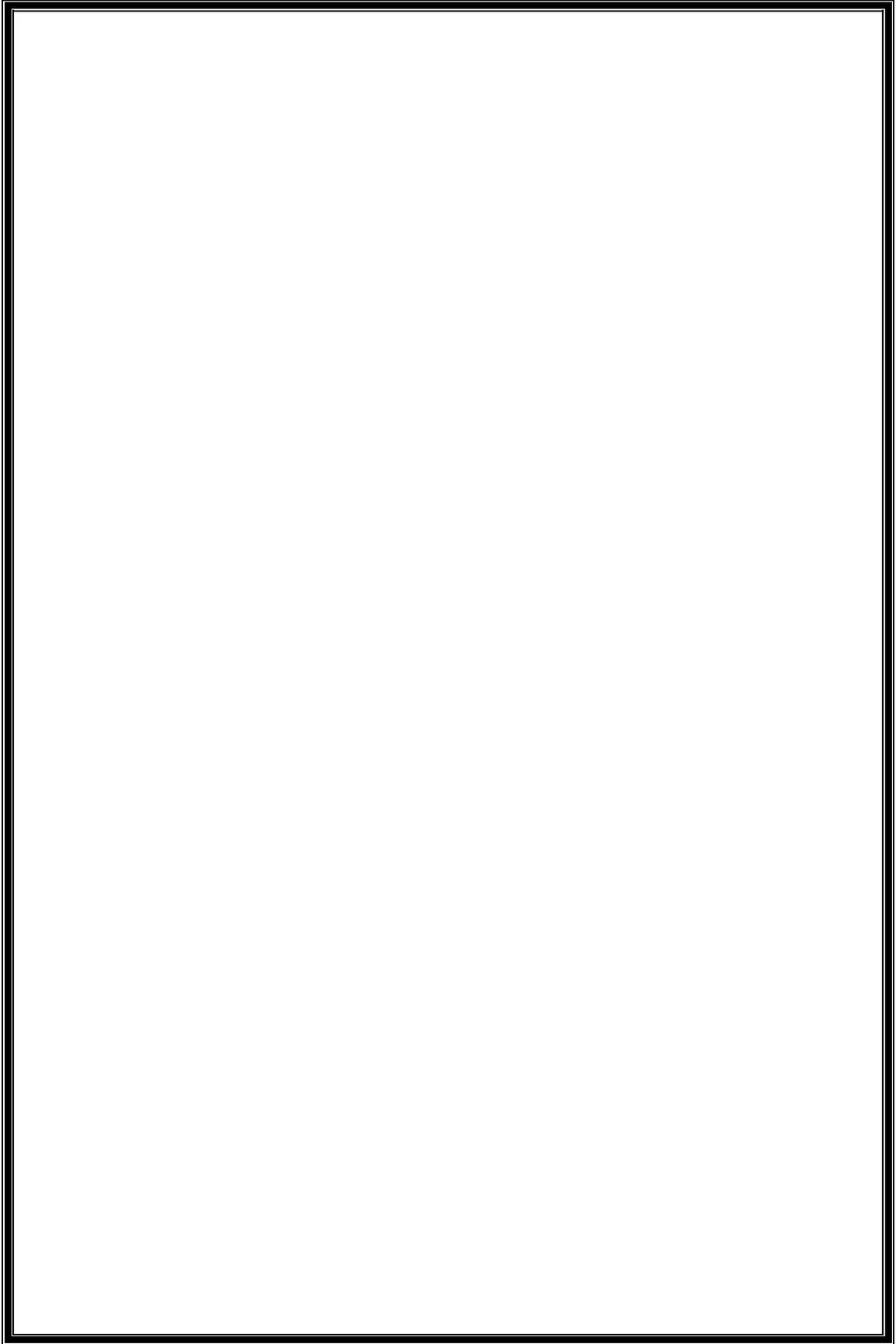
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ABSTRACT

The project represents about the development of Online English Language Learning System is for those learners or known as novices who was inexperienced of learning languages. The online learning system is a website platform designed for the learners to gain access as it is practical for learning, efficiency for improving, and convenient to use. The purpose of the system is to provide various types of features of language for them to explore and learn for themselves include by experiencing the usage of the application technology. The system development also leads for the learners to set for their target and achievements to enhance their language skills and knowledge. The application is involving with the estimation of system planning which reviews by the community to verify the feedback whether the development of the system application is successful or unsuccessful. For the attachment to online learning, there were showed a significant difference in perception such as metacognitive strategies and the attachment to online learning were significantly correlated with the outcome of online English learning. In addition, I can conclude that the future research on online learning systems should be focusing on specific language components in terms to improve more deeper understanding of the continuum in this study.

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LIST OF SYMBOLS

%	Percentage
@	Address Sign
#	Number Sign

LIST OF ABBREVIATIONS

PDA	Personal Digital Assistant
LAN	Local Area Network
WAN	Wide Area Network
IOS	iPhone OS
VIP	Very Important Person
SDLC	System Development Life Cycle
ERD	Entity Relationship Diagram
HTML	Hypertext Markup Language
CSS	Cascading Style Sheets
PHP	Hypertext Preprocessor
VS	Visual Studio
XAMPP	Cross-platform, Apache, MySQL, PHP, and Perl
HTTP	Hypertext Transfer Protocol
RAM	Random Access Memory
GB	Gigabyte
SQL	Structured Query Language
SMTP	Simple Mail Transfer Protocol
FYP	Final Year Project
PHD	Doctor of Philosophy
PC	Personal Computer

CHAPTER 1: Introduction

1.0 Project Background

Currently the era of pandemic case has increased while the trend of the technology has been upgrading for the community to work and stay safety at home. Hereby, I would represent the project background and the problems that has need to be discuss forward throughout my project. The descriptive view of my project has occurred certain of the problem statement and motivation including the problem solution that have been encountered for solving problems and the importance of the problem for the project to be develop for the whole community to explore among themself.

The project title Online English Learning System for Novices is an interactive online website platform cater for beginners who is inexperienced to start on learning English languages starting from zero before they manage their language skills up to advance. This system is designed to provide the learners who is inexperienced much about languages while the system provides several guidelines for them on how to learn languages through using online platform since it is an essential learning available from for them to enhance their verbal communication skills such as speaking. This online system [1] enables the learners to discover the languages contains more beneficial for learning materials which is conducted in the system. The online learning system had also replenished for them so the learners can explore the use of the system and understand the functions of using it effectively. Thus, the system has also provided them various of lessons and exercises with including video conferencing to watch repeatedly anytime as the video guideline had been uploaded.

Therefore, the effective of the online learning system is offering for those learners having the accurate way to learn from basic of English language. This online language learning system is a unique learning program for any public community who had the interest to learn more to gain more remarkable results, achievements, and knowledge. It had been upgraded recently by advances through communication technologies, increasing the learners or students demand for online flexible or distance learning, institutional need to maintain a competitive offering of diverse learning platforms, and positive financial gains to institutions [1]. Thus, there also consists of another method for them developing critical thinking including enhances their interpersonal interaction.

1.1 Problem Statement and Motivation

1) Lack of experiences for learners to understand from the online learning platform.

The online learning system needs to have an advance guideline to establish each step and instructions for the learners to gain access into online learning. When they first encounter using the system will have difficulties on access to the online platform. Hence, the system is needed to be develop with providing a guidance for the learners/users as it can be able to support them when they access into the system. Thus, there are several of the learners that have more experience in the subject areas of a course tend to make good choices about what and how to study.

2) Having extra classes or self-study.

Before the online learning system was introduced for the novices, they were attending to school paying fees for tuition weekly. They can have their own study mode preferences either they can choose to go for tuition or self-study at home. Both of this study mode is for the inexperience learners to recap what they have learned while they could not be able to catch up or understand their tutors deliver teaching method in traditional class.

3) Individual learning environment.

The online learning system enable the novices to gain access control of themselves and manage on their own learning at their own pace for their first time to access and explore it. They can achieve their learning with their theoretical point of view as they can manage the online resource within gaining their motivation to specific on how they manage to deal with the solution with the results they require to achieve. The environment supplies them for their own freedom and their desire to set for their goals and acquire new knowledge, it led their own responsibility that they must fulfil and attempt to be learning independently.

1.2 Project Objectives

1) To improve the learning and teaching quality from the platform.

The development of the online system platform will be a various technology creating into teaching methods and to realize about the improvements in student productivity and interaction. This proves that the advances in technology have greatly improved the education systems and methods of education. There can be more studies examining whether the convergence of education and modern technology will affect the student performance through online classrooms compared to traditional classrooms. It will also enhance their study methods with

additional guidelines that can further boost their interest from the learning resources provided from online, the development of the platform is needed to ensure whether it is suitable for them while as it can be also fit for their perspective view of own opinion to utilize their learning outcome.

2) To provide an opportunity for the individual with an effective self-pace learning.

The online learning platform [2] is for the novices to set up their own pace of learning individually. The terms of an online education for the learners to have their own personal requirement needs to gain for their knowledge and capability. Additionally, the learners are allowed to have their own option of interaction either in private or in group for discussion through online. This is due to the online learning platform consists of additional content that is available on anytime, anywhere for the learners to recap on what they have learn. They can be self-learning on their own as they get motivated from the online learning platform, it allows them to cope with the method of learning individual by gaining extra knowledge through distance learning.

3) To allow the approaches of remote learning for delivering new experiences and challenges.

The online learning platform [3] have an alternative opportunity for the learners to maintain connected with their learning outcome with providing tutorial guidelines consumes demonstration of the video that are visually impaired, this is one of the recommendation purposes to improve the online learning system platform. From online learning, it will be convenient to adopt the approaches of remote learning for the learners, so they are able to gain motivation by putting up their effort as they can focus throughs online learning. However, it is also efficient to maintain the by providing value of more experience to all novices to achieve the outcome of learning they need to succeed and improving knowledge within themselves is part of the path of continuous learning since the education of resources must embed with distance learning.

1.3 Project Scope & Direction

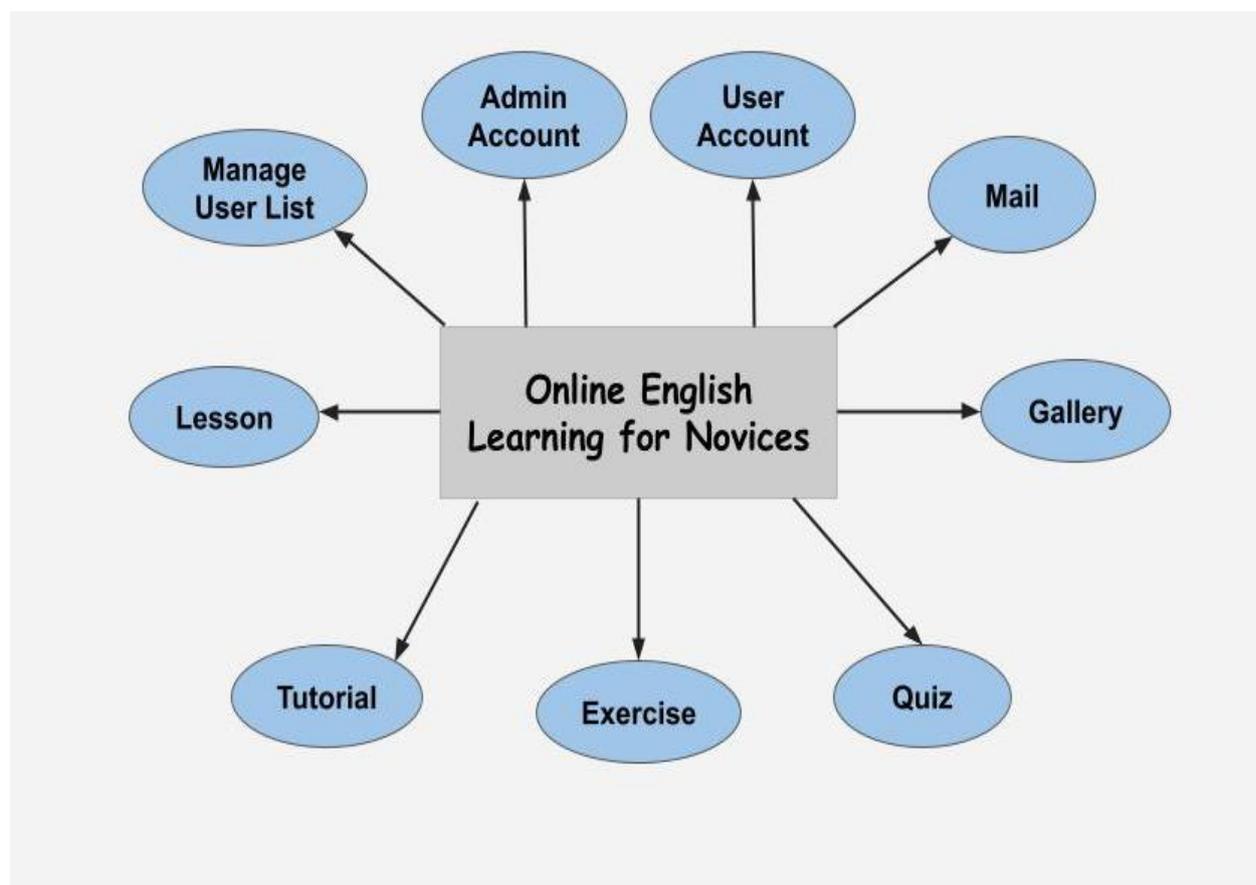


Figure 1.3.1 Scope of Online Learning System

The purpose of the project to be developed and create the platform is for the novices as the moderator will assist them to coordinate the novices for their learning assessments. Online learning [4] is a broad platform enable to assist for the novices to receive and develop more education knowledge and skillsets. The concept of learning has been different from the past in online learning platform. The online platform will eventually be upgrading and update to having the newest features, it can also be differing through a smart phone with high-speed Internet connection provided so each of the users can manage to access their learning into the website within limited time.

The online learning platform is provided for them with variety of resources of learning materials for them so they can be able to edit, search, view and navigate from the platform as they can also explore on the usage of the proposed system include how the system function works so they can understand for themself as they can get used to the system. This is very useful for the novices because they can learn the subject from the comfort of their home.

Therefore, the novices also can take leisure time, so they do not need to have to quit for their work since they are unable to go outdoors. This way of learning will lead them to achieve their higher educational qualifications which they can obtain once they have gained their experiences.

The project assessment task of success criteria referring as:

- an ability for collaborate ideas in proper design
- an ability for reviewing a design
- an ability for sharing and communicate with providing ideas using technically
- an ability for choosing an appropriate material
- an ability for showing the use of strong shapes to strengthen the model
- an ability for having more engaging and face challenging
- an ability for developing a good learning experience
- an ability for using tools and equipment correctly, safely, and competently.

The project scope of the online learning platform may have the function modules which is consist of user account, admin account, manage user lists, lesson, exercise, tutorial, gallery, and mail.

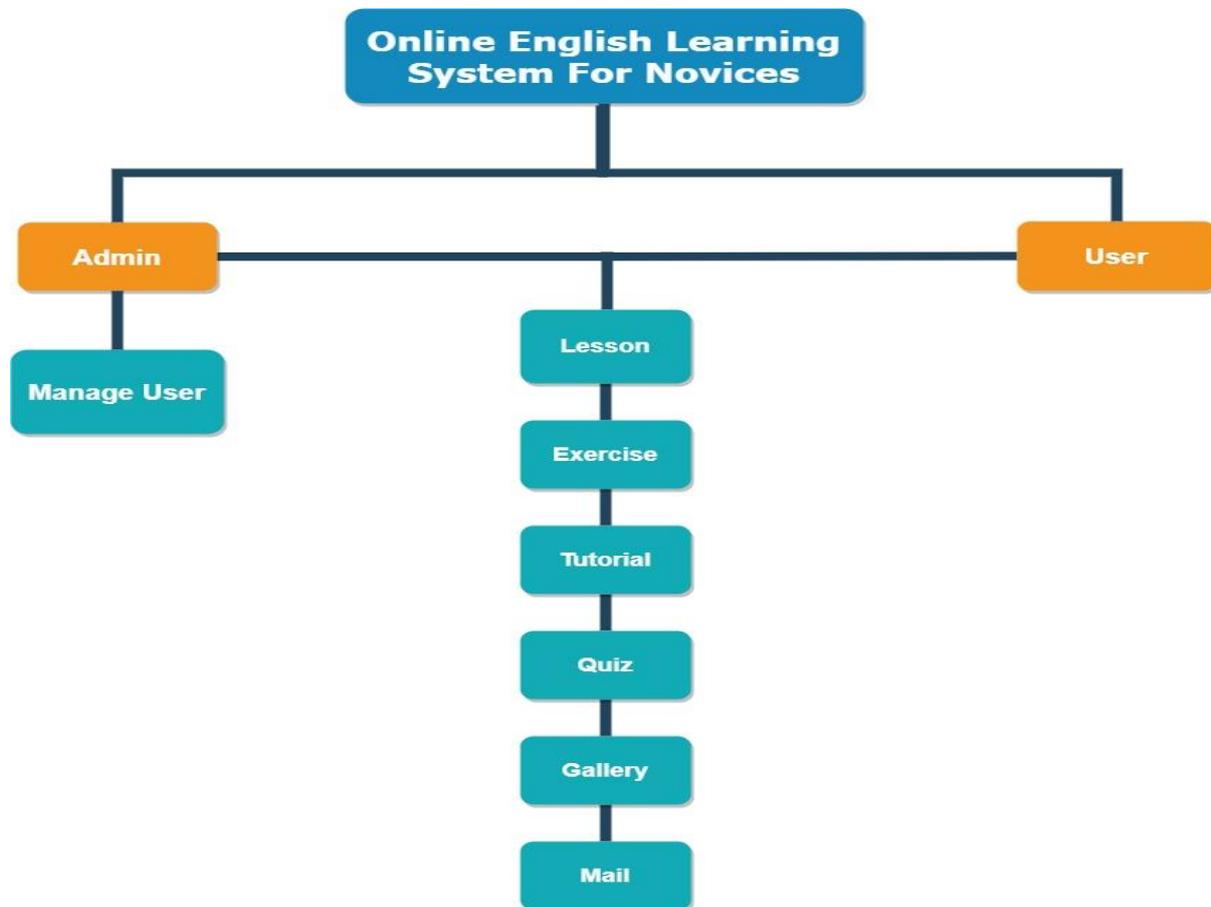


Figure 1.3.2 Structure Diagram

User Account

For the user account is to login for their account with providing their username and password. If they have not yet register for their account, they are encouraged to sign up for their details before signing in. Once they have register for their account, they are enabled to access into the learning system.

Admin Account

The admin account is the administrator can customize each of the function by login into their account, access into the homepage, manage users, content materials and others activity so on. Admin account have set privilege to prevent others party to access into the account, it ensures the system develop can be only admin get their own account instead of allowing users to access.

Manage User Lists

From the admin account, they can enable to view user lists verify on the users which of them have registers their account. Admin also can be able to add new user directly or remove user which is not active to access from their profile.

Lesson

From the online learning platform, the topic or subject lesson will be uploaded for the novices/users to access to get the English learning content through files for their learning. From the online learning system, the online platform provides them with each of the topics or chapter that are available for them so they can be able to look for the study materials they need to utilize for their learning outcome.

Exercise

The exercise is create given from the administrator through the platform usage function, which will be uploading each exercise questions for the users for doing their revision and practice it for their studies and submit once they had done.

Tutorial

The tutorial provides instructions of videos uploaded for the users to view with learning English languages in practical way by following the steps and guidelines of the demo. This led them to understand efficiency.

Quiz

The quiz format questions will be prepared by uploading from the admin side so the users can enable to attempt by answering all the questions given and submit.

Gallery

The admin can upload, insert, update, and remove the images from the online learning platform system while the user can view the gallery photos.

Mail

The online learning platform consist of discussion for the user or admin individually to comment or provide their feedback, where they can also get their questions to ask through the learning systems.

1.4 Project Solution

Online learning is a learning with using the electronic devices such as computers, PDA, mobile devices and using networks (LAN, WAN, or Internet) connections for the delivery of interaction conversations. The most important of the requirement to develop e-learning system platform is to plan the current strategy once have already identified the platform that match with the learner's perspective needs. This may lead the audience [5] in getting started with adapting the online learning platform as they must explore on design quality and to observe on the navigation of the platform usage, but at this point in the project, it will need to focus primarily on gaining insights for the audience. Thus, the project priority development is to create a process that understands the audience requirement needs and their problems while it can be truly empathizes when they access into the online system platform. It is encouraged to provide more meaningful information for the audience so they can get notify of how the platform functions.

1.5 Innovation of Project

The desirable of the innovation of the project is for the technology advance forward with variety of teaching methods that will also be change especially in the field of online learning. The software and various equipment are some of the innovations that is came out by the digitalization era. Digitization [6] is one of the innovations which plays an important role in advancing and advancing online learning processes. The development of the online learning

platform is to build the best suitable prototype provide with more features allows the users or audiences ease of use as it is almost to the completion before they can request for their feedback. At the earlier period, it was difficult to invest a lot of resources and implement for significant changes. Instead, the major requirement need is to create a fast prototype, receive feedback, and lastly to adjust. This is somehow the software development concept manually helps to improve the process, get better results, and reduce development of time.

1.6 Contribution of Project

The positive impact of the online learning system has been improved efficiency, workflow, and collaboration, and has revolutionized learning in the workplace over the trend of the technology has been upgraded during the happening of pandemic cases. The flexibility of the online learning [7] had offers in terms of the learning location and learning time which means for the entire educational program will be distributed into teams. The impact of e-learning develop for the novices is wish they can have fun in learning and engaging within the education sector. The results of integrating e-learning platform have discard into the education sector will have help the development of the system improve the IT skills as it can be translated into technology for the students. It can conclude that most of the businesses have been operate [7] in the digital workspaces due to the e-learning now has become an increasingly standard to provide the segment of the education for them.

Online learning is the process of sharing knowledge from a variety of channels such as e-books, blogs, articles, and journal. This revolutionized is just like the traditional chalk and blackboard style learning methods offered to the novices for wisely use on the platform. On the other hand, e-learning training makes sending and receiving convenient and more productive. The moderators/admin can apply purely for the methods of teaching with using the latest technology. It can also be defining that e-learning is a process that specify the passed over the Internet everywhere except in traditional classrooms taught by their tutors.

Besides that, the online learning system was recommended to provide the learners to receive their basic level of education to improve their skills. They are urge for applying online learning through all levels of schooling will guide them better understand their lessons faster and fits for their learning pace. The importance of online learning is to develop advanced learning skills for novices. For an example, the system can be creating and selling e-books which is one major of the developments to gain the attention of the audience where they get

Chapter 1 Introduction

the info of the platform. Therefore, the trends of e-learning have striven to bring learners, students, teachers, professionals, practitioners, and other groups of interest together in one place. This are requiring the best practices for sharing knowledge through various online platforms among all communities.

Chapter 2: Literature Review

2.1 Overview of Existing Online Learning System

The development of online learning system is a new specification for the novices to enhance their learning and knowledge from more impact of blended learning. Besides the online learning system was introduced to the novices, the system has also further improved by distributing to all novices when it is launched for them to gain motivation towards the pace of learning from Internet environment and the facility at home learning. The online learning system [8] is the process of distant learning through Internet environment for them which lack of learning languages since the effect of Covid-19 pandemic cases has influence on the education system in public. Thus, the online learning platform was established from advertisement or from broadcast media to promote and offered for all community. The trend of online learning has been upgrading forward due to more people have the initiative to seek for themselves to enhance their learning skills and knowledge for further their studies. With having a suitable environment for learning conditions and technologies is needed a stable Internet to access for the learner's experience when they are having their own pace of learning through online.

2.2 Types of Existing Systems

2.2.1 Babbel

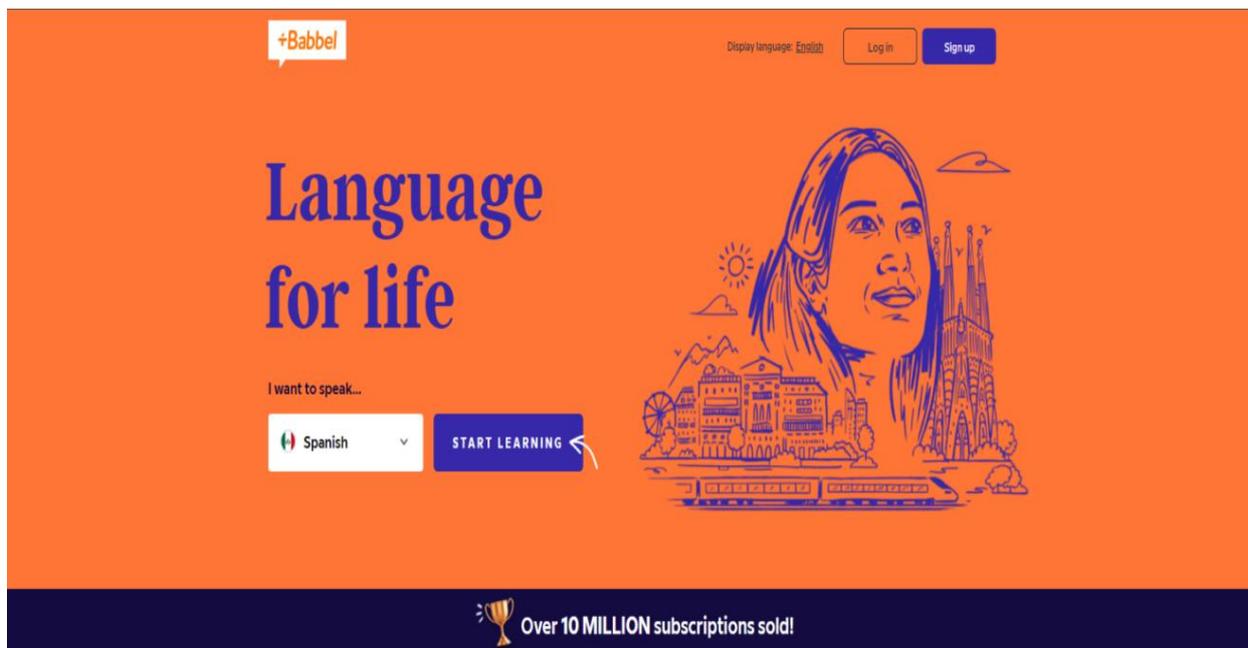


Figure 2.2.1.1 Babbel Online Platform

Overview

Babbel is a platform which founded in 2007, it is also the first language learning platform the world. As a leader of the online language learning industry, Babbel had manage to achieve the success of international from millions of active users and has been rated as the world's number one educational innovation company. Babbel consists of the product offering courses tailored to your native language, based on grammar and vocabulary that customers already know. Audio is an examples and conversations are recorded by real native speakers, rather than automatic computers, which enables customers to speak correctly and confidently. Time-tested strategies, such as cognitive research and communicative approach, have optimized the ways of receiving, preserving, and recalling new vocabulary and grammar.

Features

1) Designed by professionals

It is a course with realistic scenes designed by more than 100 linguists or other like experts including native speakers so they can guide the users to learn in practical method.

2) Use what you have learned

It is an interactive dialogue that enhance you speak efficient and confidently. The apps provide speech recognition technology to support the users for their pronunciation.

3) Learning on any device

It can be compatible with most devices, but the course can be lasting only 10-15 minutes continuously to enhance for their skills and knowledges each step.

Strengths

1) Simplified User Interface

The user interface design for Babbel is much more user friendly. They want to set the most easier user interface for all the users to tag on it and not to be more complicated. Users can remain optimistic and content with the overall experience to ensure that the sustainability to be continuously.

2) Compatibility with most devices

The customer can be able to download the Babbel apps from IOS and Android while they can be able to gain access the application.

Weaknesses

1) Language limited

This website provides the English and other foreign languages version except Malay and Mandarin, so it will be having a little bit inconvenient for the Malaysian users that are not good in English.

2) System Bug

Sometimes the voice recording of the system can suddenly not be able to function well as it will started to not be working at all.

2.2.2 Busuu

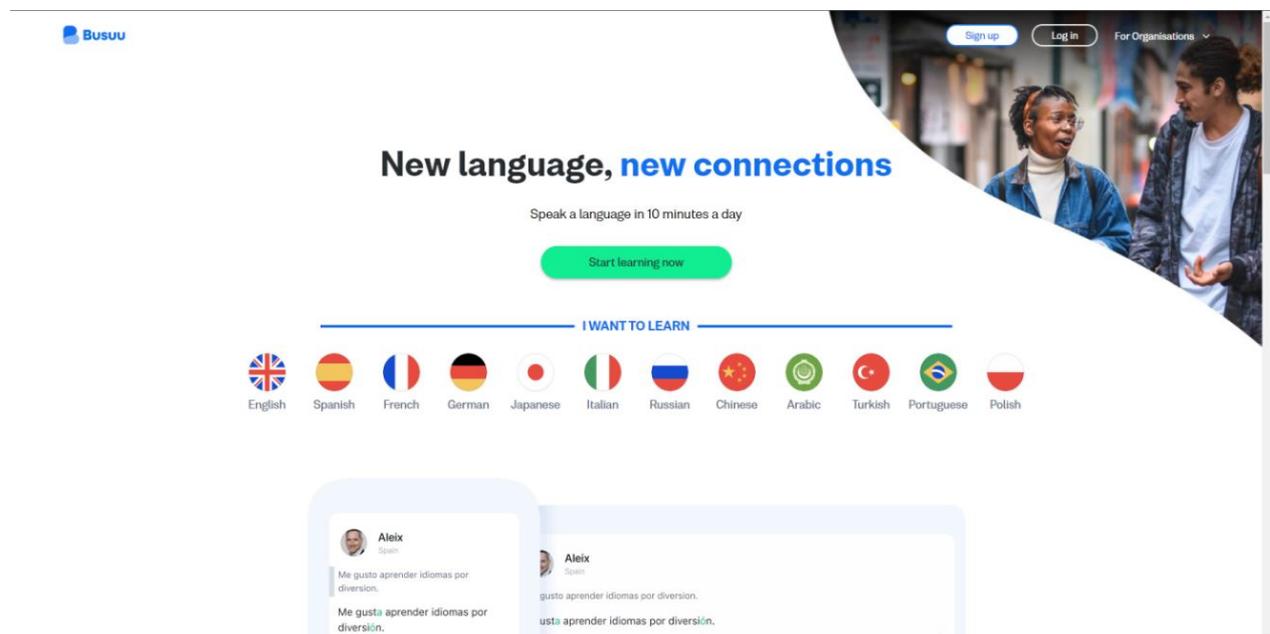


Figure 2.2.2.1 Busuu Online Platform

Overview

Busuu platform is the largest language learning social network in the world, which can provide courses in 12 different languages to more than 100 million learners around the world through websites and mobile devices. The learners can register for free and subscribe to VIP membership to unlock more functions, such as grammar courses, offline mode, McGraw-Hill Education language certificate or adaptive vocabulary trainer function. It is a global language learning community to practice reading, writing, listening, and speaking, and allows the community take language courses so they can be able to learn a new language as in the platform have variety of other foreign languages.

Chapter 2 Literature Review

Features

1) McGraw-Hill Education

Busuu, an online platform has been together with McGraw-Hill Education, has launched an official certificate, which enables our students to prove their language learning achievements.

2) High-quality courses

Their language courses are carefully written by an in-house team of educational experts who work tirelessly to optimize language teaching methods.

3) Practice with native speakers

With the help of a strong community of 100 million people, you can directly let native speakers from all over the world accompany you to exercise your language skills. As part of the corresponding course, you can send writing exercises to native speakers of your language.

Strengths

1) Multiple language version

Bussu platform provide multiple language such as mandarin, so it will be convenient for the users that are not good in English.

2)Anytime, anywhere learning

Their products can be used through mobile devices and websites, so users can adjust their language learning according to their busy schedule. Their apps support iPhone, iPad, and Android. With the help of offline mode, users can learn even without Internet connection.

Weaknesses

1) Connection problem

It had some problem occurs sometimes which the apps will lose internet connection. In circumstances, the app may not be convenient for the usage to support the user

2) Fee for premium membership too high

Some users cannot afford to pay for the membership offer if the price if too low, mostly they demand the apps to be free installation and no limited edition.

2.2.3 MANGO

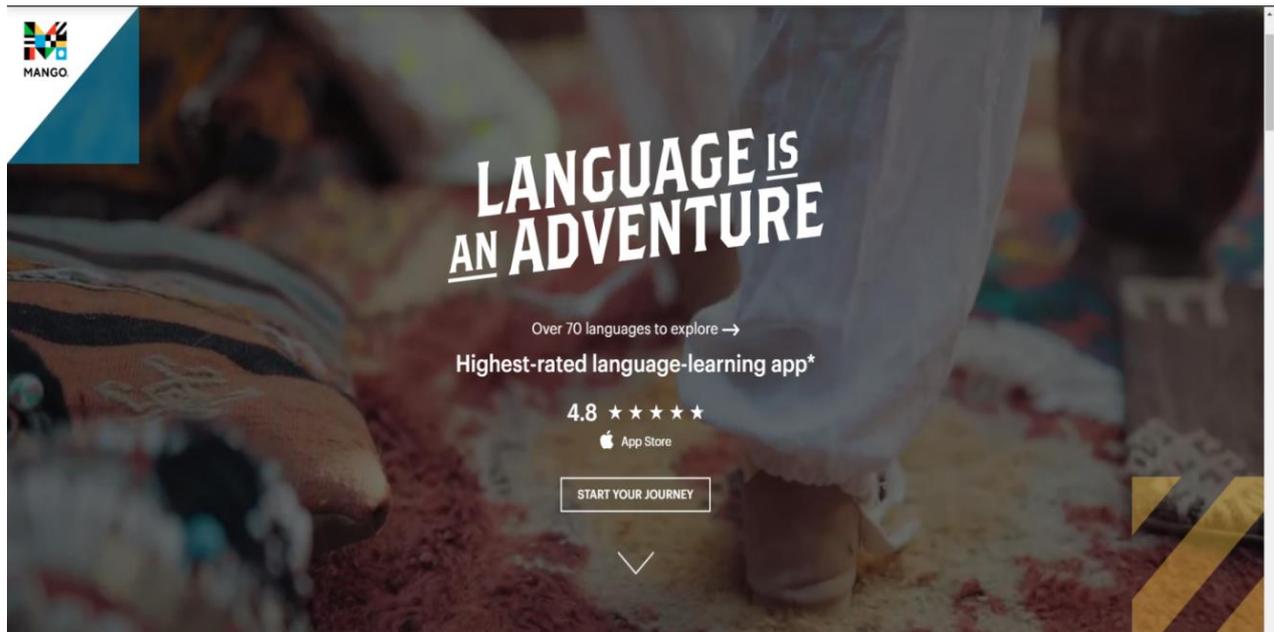


Figure 2.2.3.1 MANGO Online Platform

Overview

Mango is a company composed of adventurers and ambitious innovators, who are committed to building a resource to challenge users to discover new connections between each other and the world through a deeper understanding of language and culture. They have established an environment for intelligent technology and passionate people to work together to create a learning system, which is based on mature methods and award-winning learning functions and developed by language experts and native speakers from all over the world, so you are confident to start dialogue in any language.

Features

1) Intuitive Language Construction

Intuitive language construction establishes four conversational skills necessary as well it establish the meaningful connections in a new language: vocabulary, pronunciation, grammar, and culture.

2) Building-block approach

At the beginning of each chapter, the lesson is decomposed by the mother tongue in the context of conversation, along with the progress of the course, and backup learners are established. They face new vocabulary, keep practice, and cultural background, and supplement the learning materials and background of cultural background

3) Vocabulary

Mango platform aims to introduce new words and phrases at different time intervals through memory and critical thinking exercises, as well as activities established to remember what you have learned, so that you can be familiar with how to absorb and apply related words to grammar structures you have already learned.

Strengths

1) Provide different services for different target customers

Mango's award-winning language courses are very successful in schools, enterprises, libraries, and government agencies all over the world. The proven method is helping beginners and cultivate learners' confidence in connecting in the new world they will discover.

2) Available in online and in app form

This language platform allows the users to sync their progress across devices for a seamless learning experience.

Weaknesses

1) Language limited

This website only provides the English version, so it will be having a little bit inconvenient for the users that are not good in English.

2) Lack of Content for Advanced Language Learners

The platform only provides the learning resources for those who are beginners willing of learning language they are interest of it while for the advanced level they would need to have more complex stimulation.

2.2.4 Duolingo



Figure 2.2.4.1 Duolingo Online Platform

Overview

Duolingo is a website or mobile app, which had launched since 2011-2012 for public had distributed for the whole world community to explore variety of languages through online provided with lessons. It is free and convenient for every community to access into the website for learning. The website requires specific skills for the learners to practice various of vocabulary, grammar, comprehension, short stories and speaking through of all different types of languages. The company have used up a freemium model of the app and the internet site are for on hand without charges of fee, even though this online learning website is an additionally gives a top-class provider.

Features

1) Provide well organized and progressive lessons

The application enables the learners to enhance their language skills with the feel of what they have learned to achieve for further working on their progress. Additionally, they can be reluctantly learning new language words through grammar.

2) Provide option for enhancing skills

The learners are encouraging for their self-learning by further new words such as vocabulary. The application also enables the learners to further improve on what they have learnt before as they can adjust better for their skills. Another option is they can be able to redo the test for several times as it is an efficient official application setup for them to learn it slowly.

3) Offering more of other languages

With more advance ways of learning other languages, the learners can be motivating by improving their progress from Duolingo which provides them an interactive story for them in terms for them obtain well for their interests as it consists of some usage of language and guidelines.

Strength

1) Provide learning through technology

The learners have the activity to learn in terms of gaining for their knowledge through technology as it contains more resources such as online platform consists of Internet support for them to retrieve the findings of learning materials they need to acquire. The system provides advance learning opportunities like installing learning materials or resources which had upload from the system and another method conduct is gain access with the learning that is instructed from the guidelines.

2) The app consists of more content

The app distribute to the community is well consistent due to it have more lessons with variety of basic learning. The apps also serve the learners/community with variety of contents such as background history, introduction, questions, adjective, and others.

3) It is free for registration

The application is free and available. The users can get it from the official website to gain access into the application.

Weaknesses

1) Need Internet connection

The application requires online Internet network only it can be able to access into the application for performing their tasks including start using it.

2) Using translation

The application consists of translation which does not consist better features due to the size file is not large to store data to store in storage devices.

2.2.5 MEMRISE

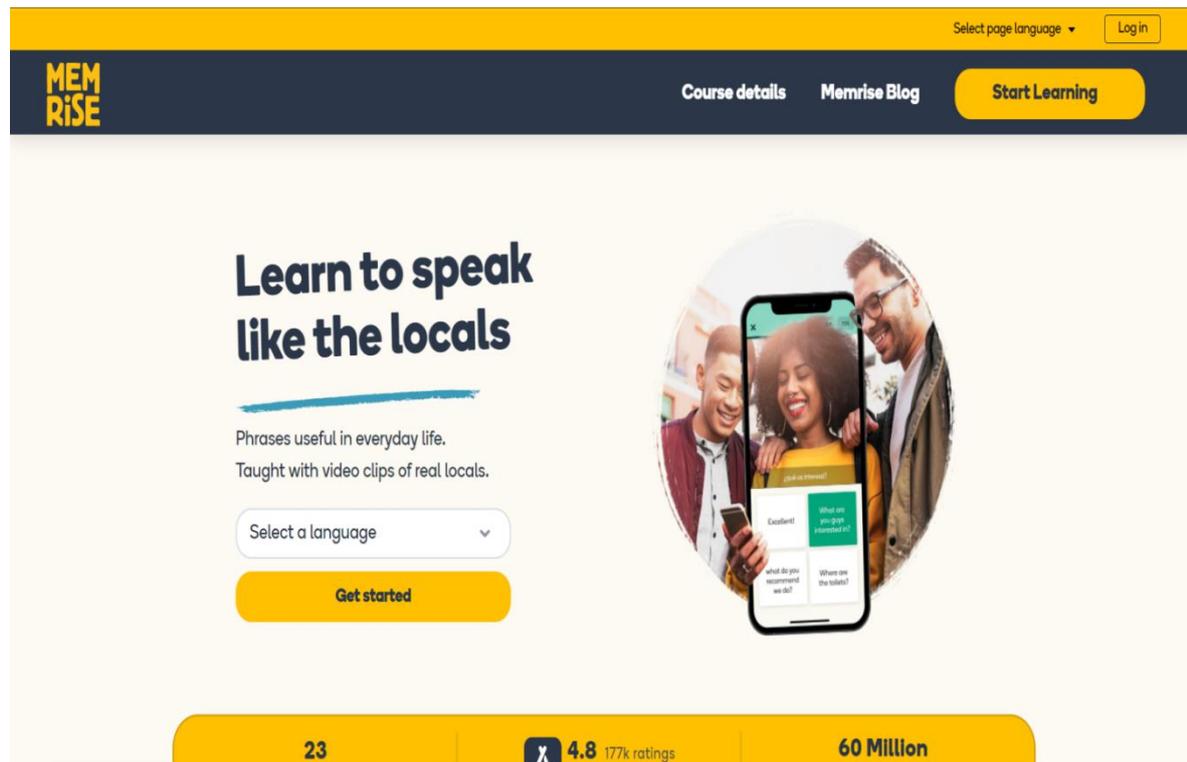


Figure 2.2.5.1 MEMRISE Online Platform

Overview

Memrise is a British language application platform, it had been launched since 2010 and it recently upgraded the effect of learning before it was published for the community. The language application is convenient and useful while it directly caters for the languages as fun activities to distribute to every learners/user to enjoy instead of more learning. It was available to installed for android, IOS and web devices. It consists of multiple languages among each course for the development to distribute. The application is slightly similar like Duolingo, it is also very convenient, useful, and savvy language for learning as it can immerse the community through stress-free by providing them quick learning with 1000 videos from native speaker. There will be major users that had registered over all time been needed to notify to ensure the improvements and innovations of the applications developed was succeed based on the user ratings.

Features

1) The courses are free and available

The courses have offerings some topics that acquire basic languages vocabulary, it slightly focused on the approaches of languages describe for skills need to be develop for conversation such as speaking or reading and grammar which is majority important among languages need to be noted for achievement. Once the users start the walkthrough from the website, they can use the browser version to see the full set of available programs and modules as soon as it is available in the application.

2) It offered different languages

The application features consist of monumental options for the learners to explore and learn on how to process the languages which is being offered. There will also be providing various of artificial and sign languages for the community to have the opportunity for discovering more knowledge by observing with putting much of their own effort and ideas.

Strength

1) The usage of the app is motivating

The application will make the users to feel motivated by the features of learning, gaining new vocabulary words and structure of grammar, while it had also attracted their intention to deliver interests and focus to keep forward towards their achievement.

2) The app consists of utilization of time

The application had the effective ways for the users to just spend some amount of their time to use it through their phone rather than persist them from feeling boring wondering around. It is useful for the application which is available on pc or phone devices to learn as long they are free for doing so.

3) The app having more intuitive of learnings

The course offered more content of languages are piled up while can be notice it was implicitly for improving the grammatical structures that is directly through lecture material from the applications.

Weaknesses

1) Not offering demand of vocabulary

The course from the applications does not meet with the requirement of the development to be innovate for the community. It is limited for the information to receive by others due to the apps is synchronize accordingly.

2) Lacking the quality of cultural information

The app develop does not contain enough information such as the language awareness when the users to gain access and unable to comprehend knowledge accurately on the surface.

2.3 Comparison between existing systems and proposed systems

	Babbel	Busuu	MANGO	Duolingo	MEMRISE	Proposed system
Strength						
• Sign up/Login account	Yes	Yes	Yes	Yes	Yes	Yes
• Simplified User Interface	Yes	Yes	Yes	Yes	Yes	Yes
• Provide more learning content	Less	Less	More	Less	More	More
• Allows for own pace learning	No	No	No	No	Yes	Yes
• Using online/offline for learning	Can only be online	Can be online or offline	Can only be online			
• Different services for different target customers	No	No	Yes	No	Yes	Yes
• Able to enhance communication and language skills	Can	Not really can	Not really can	Can	Not really can	Can
Weakness						
• Limitation of time for learning	No	Yes	Yes	Yes	No	No

• System Bug	Yes	No	No	Yes	Yes	No
• Connection problem	No	Yes	No	No	Yes	No

Table 2.3.1 Comparison of existing systems and proposed system

2.4 Summary of existing systems and proposed systems

From the table have shown is about the comparison between an existing system and proposed system. All five systems and the proposed system provide for sign up and login for each learner to have their existing account to start for their learning while every system mostly have a simple user interface and are free to use. These allows the learners can easily access into the website while it also is free with ease of using for their features. However, five of these existing systems: Babbel, Busuu, MANGO, Duolingo and MEMRISE including the proposed system have different specification of its features. Some of existing systems may have consisted of more learning content and allow for self-learning pace similar the proposed system. Eventually, Busuu, MANGO as well as Duolingo and MEMRISE can allow to be offline mode for the learners to free access with the platform without using Internet connection.

Therefore, Babble, MANGO and Duolingo involved with limited language because the other languages are not applicable in Malaysia except English, Mandarin, and Malay. Furthermore, there are weakness such as the limitation of time for learning among various of existing systems have lacking. Hence, there may also could be some of the existing systems have system bug and connection problem respectively as it will lead to the mobile user experience feel bad within themselves. The comparison of each of the existing systems have defined that each of them have its different strength and its weakness just to promote the proposed systems where it next can provide the enhancement of its features such as the content like language structures or topics, the expectation set for the requirement meet by the clients and allowing for building engagement and motivation with course content.

In conclusion, after comparing each of the existing system, the following topics will be discuss regarding about the planning and development of proposed system that have built to differentiate between the five of the online learning existing system by providing various of features such as to be more information on where the learners can sustain their learning with providing more learning contents to allow them for exploring more to strengthen and improve

Chapter 2 Literature Review

the imperfect online learning existing system and to provide convenience, availability, and integrity for the learners. The most important of the criteria of learning system need to achieve is to be aware of accessibility concerns so that the learning system platform required the information match with the client's requirement of the learning resources they demand.

Chapter 3 System Methodology / System Model

3.0 System Methodology

The system methodology [9] refers as a framework for the system development to process the work by organizing, planning through online learning system is a platform which can be interpret for education purpose as the cycle of technology. It is needed for the process of the development to increase for the method to further improve to produce the system. The pro of the methodology is the structure of the system can minimize extensive scope of framework while the cons is the planning or design may go wrong if it is wrongly organized as it contains several phases to complete each step.

3.1 System Design Diagram

The system design diagram most desirable to choose is the SDLC process as the process of the system [10] enables to develop the system in stable and consistent condition while ensuring the information is clear for understanding regarding on the task. The process of this model is describe as crucial due to it can prevent the dullness of its life cycle for the development, eventually it will be ease for evaluation more convenient and manage to assist the developers to progress on the development for each stage. The process of SDLC process consists of task planning, creating, testing, and deploying. The type of model can be represent for the SDLC process can be the waterfall approach which is known as the earliest of the process model used in software development. The good recommendation of choosing this process model is it can illustrate the task clearly to identify the goals to innovate for the scope to be done. Another is the design of the process flow of the system can be clarity for the developers to monitor on the maintenance before deciding on the next stage. For the testing stage can be allowed to modify when executing the task before forward to the following stage. This can conclude that the method for the process of the life cycle in a proper life cycle by providing a better solution with ensure the project can be optimizing of the control and reducing the occurrence of problems during the planning of designing and implementing.

3.1.1 SDLC Process



Figure 3.1.1.1 SDLC Process

There will be system methodology to conclude on how we design or implement the e-learning system, the software development lifecycle model [11] is involving with the process followed by a software project that consists of more details and information that describe to the developers on how to develop, maintain, replace, change, or improve specific software. The system development life cycle (SDLC) defines the methodology for improving the quality of software and the overall development process. The SDLC process also allows the companies to perform detailed analysis through each of the step to enhance the efficiency of the development and minimizing costs within the whole design process.

Phase 1: Analysis

Analysis is the first stage of SDLC development process to start the project by collecting data accordingly based on the requirement. The analysis process is to represent for the client a solution for the system development within the requirement they need. The analysis phase also gathers business requirements and identifies potential risks. This phase of the SDLC also includes the feasibility study that identifies all the strengths and weaknesses of the project to be concluded for evaluating the overall viability of the project.

Phase 2: Planning

The second stage of phases is planning, the process is to organize the scope of the problem and verify for the solutions of the project. The process of planning is involving with the aspects such as resources, costs, and time needed for the development to conduct. The planning for the project to be developed is to identify, prioritizes and assigning for tasks include the resources are required to construct the whole complete project.

Phase 3: Design

As for the third phase of SDLC process is design process or can be architecture can be necessitated for both steps and there are high-level design and low-level design. The previous results of the design phase represent the future architecture of the software product, while for the low-level design phase describes on how each feature of the product should be well maintained. Meanwhile, the stages required for database specifications which are developed to determine data management and storage for further processing, retrieval, or evaluation. Furthermore, the development team will have to carry on the process of its key components, structures, processes, and procedures to achieve their goals as the next steps will be moving on until its final stages.

Phase 4: Development

After the design phase is complete, the following phase will be development. The development process occurs when software development turns the requirements of the project as well as needed for the prototypes to manufacture into real solutions. The outcome came from the software engineers who start building the entire system by generating code with using the necessary skills. At this stage of the software development lifecycle, the client will have their first glimpse of the future product. And at the end of the build process, the customer will have a working capability that can be shared with the customer.

Phase 5: Testing

The testing phases of the development involving by using testing with coding evaluated to check and validate on the software product. The testers next will perform software testing lifecycle activities to monitor the project system for bugs and defects. Once complete testing the entire system, the testers will have to initialize by checking the suitability of the actual and the expectation behavior of the program.

Phase 6: Maintenance

The final stage of phases is maintenance, the outcome of the process is when the system is nearly complete while it is utilizing. It can be update, enhancements, and making changes to incorporate new features into the production software when it is ready. Another major thing which is important is to maintain and upgrade the system regularly so that it can be adapting for needs of future requirements. After the whole phases of the system is completely ready, it can be still upgrade to the core software development lifecycle model/methodology.

3.2 Use Case Diagram

Use case diagram is known as a set of actions or functions to represent the action for the system to perform the activity. The diagram is slightly familiar than flowchart just the flow of the diagram will be operating the design framework of development. The actor can be known as a person to be define as a role from the system based on the requirement of the framework to work on the function. It also illustrates the interaction between a system and its environment.

The diagram below shown are overview of admin and user use case diagram which express on each of the functionality. The admin use case diagram shown that can enable to sign up and login into account, manage user records (view, add new user or delete user), lesson (add, upload to show learning content materials while can be update and delete), exercise (create, update and delete questions), tutorial (insert, upload and delete video while can review the video lists that have been upload), quiz (create, update and delete questions), gallery(insert, upload, edit and delete images) and mail (send message to any users while receive their message).

For the user use case diagram shown can be able to sign up and login into account, lesson (retrieve learning material from file upload by admin and download the content), exercise (attempt each question and answer before submitting), tutorial (view each videos upload from admin), quiz (attempt each question-choose one of the answers among four options before submit), gallery (view image info and description) and mail (send message to admin, receive message and review message log).

3.2.1 Use-Case Diagram (Admin)

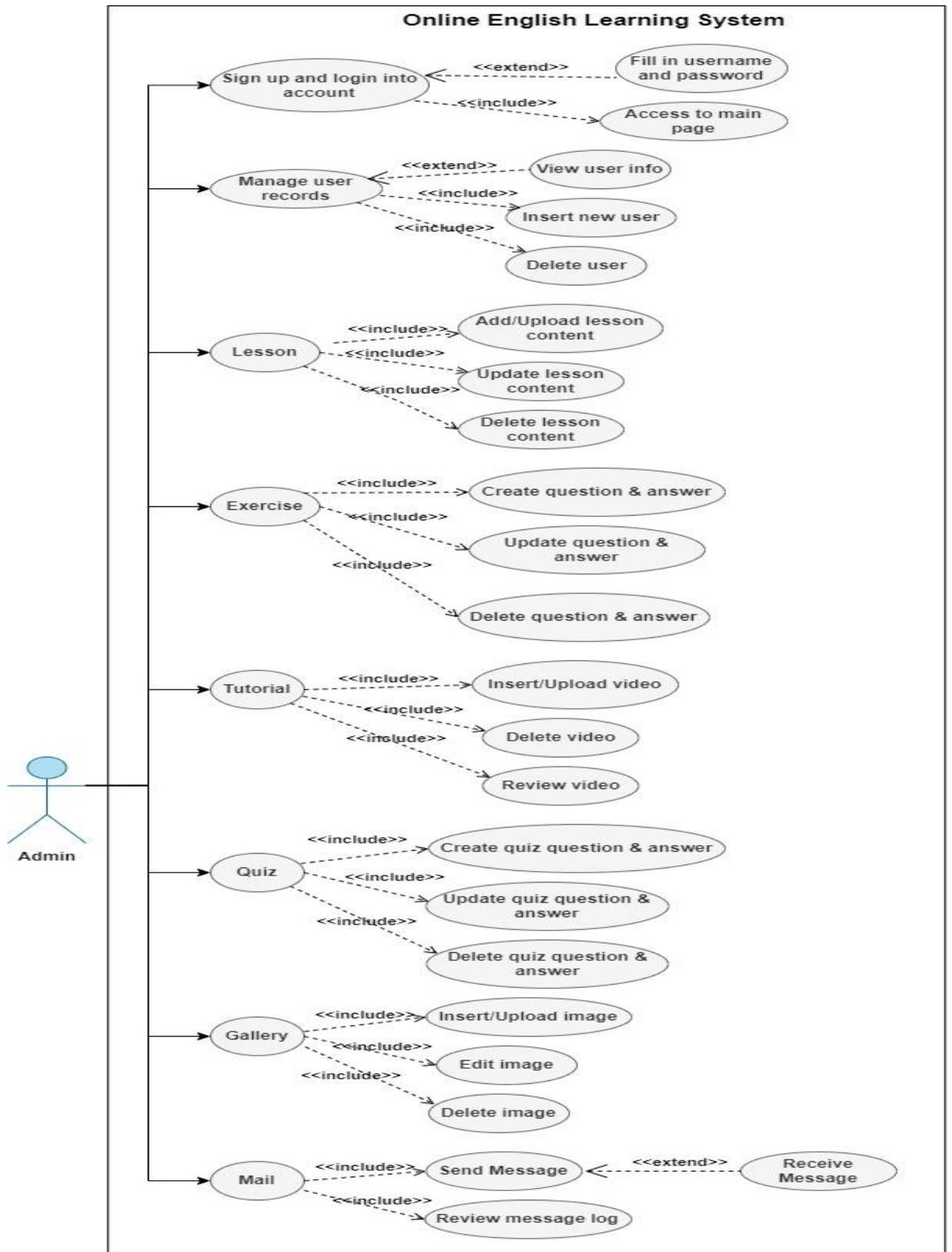


Figure 3.2.1.1 Use Case Diagram (Admin)

3.2.2 Use-Case Diagram (User)

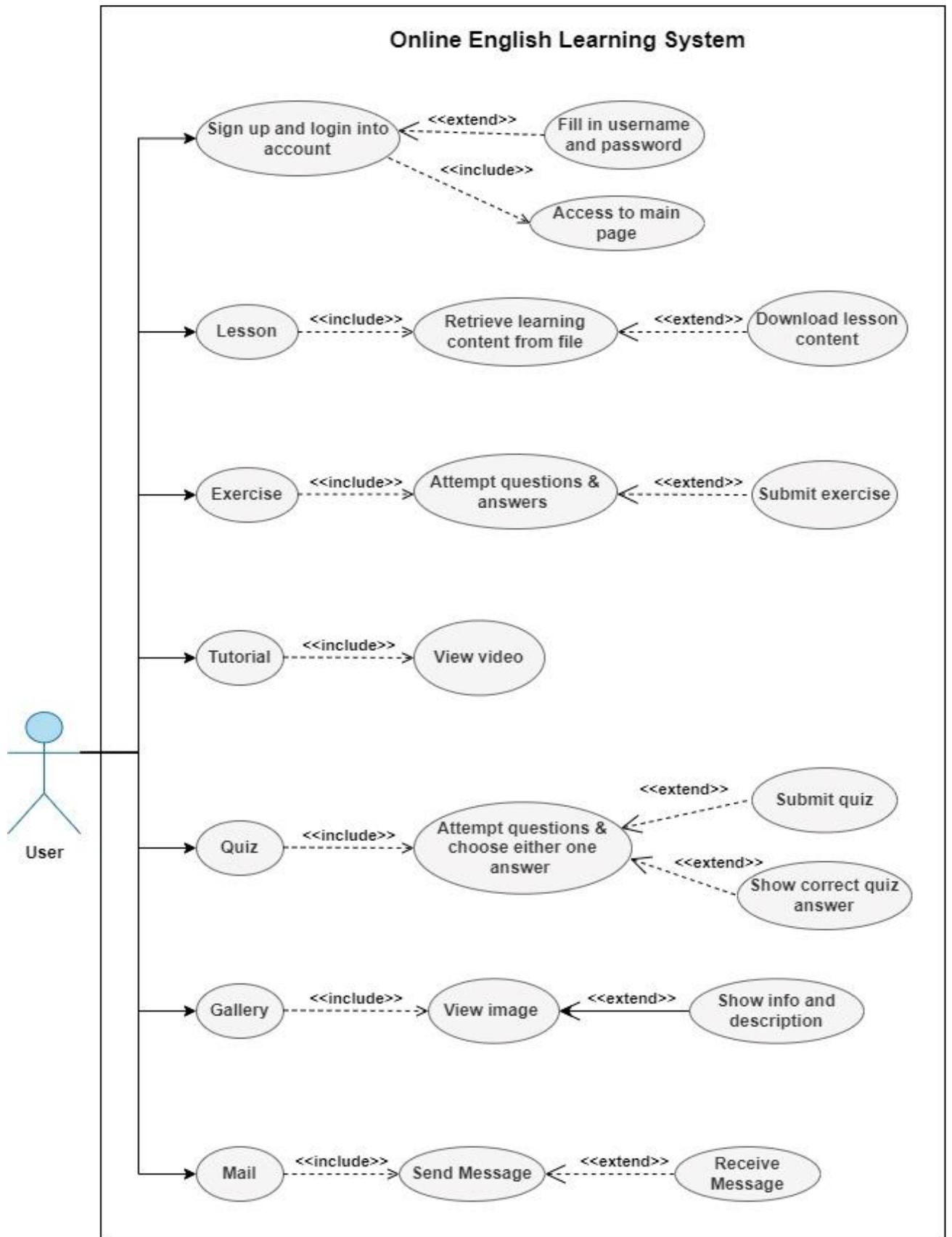


Figure 3.2.2.1 Use Case Diagram (User)

3.3 Use Case Description**3.3.1 Sign up – Use Case Description**

Use Case	Sign up
Purpose	To register and create new existing account
Actor	Admin, User
Main Flow	<ol style="list-style-type: none"> 1. Click on the signup link below if does not require an account. 2. System requires to fill in username, email, and password for registration through input field. 3. Type in password one more time to confirmed once have first fill in the new password. 4. After done filling every detail from the input field, the system will display to admin/user that have they have signed in successful while redirect to login site. 5. The system will also insert the data that have been input into SQL database
Alternative Flow	<p>If admin/user have left the input blank or wrongly fill in include same existing data input for submitting:</p> <ol style="list-style-type: none"> 1. The system will specify from the system that the input field must be filled out before submitting. 2. The system will prompt message when admin/user have required fields that are missing will need to sign up again. 3. If the data input admin/user filled in have been exists, the system will alert their username or email address have already used before. The system will redirect back for them to sign up again.

Table 3.3.1.1 Sign Up – Use case Description

3.3.2 Login – Use Case Description

Use Case	Login
Purpose	To allow to login into account once register successful
Actor	Admin, User
Main Flow	<ol style="list-style-type: none"> 1. Once admin/user done register their account, there is the login link for them to redirect to login site. 2. System requires to fill in username and password through the input field before login to main page site. 3. Once admin/user filled in the correct username and password they system will navigate forward to main page.
Alternative Flow	<p>If admin/user does not provide username and password type into the input field:</p> <ol style="list-style-type: none"> 1. If system will show an alert message to admin/user when they have not fill in username and password. 2. If the system detect the username and password have wrongly input, it will display an alert message of incorrect username or password. 3. The password field are required at least length of 6 and cannot be less.

Table 3.3.2.1 Login – Use case Description

3.3.3 Manage User – Use Case Description

Use Case	Manage User
Purpose	To allow admin to manage users' records
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. The system shown for admin by displaying the table of records of the number of users have register their account. 2. Admin can manage users with insert new user by clicking the insert button/link, it will navigate to the next site which shown a form for the admin to fill in user username, email, password and datetime of user registered. 3. Admin can manage users by delete user which the delete button through the table of user's records
Alternative Flow	<p>If the data input admin filled in user lists have been exists:</p> <ol style="list-style-type: none"> 1. The system will alert their username or email address have already been exists and require trying to fill again. <p>If unable to insert new user lists:</p> <ol style="list-style-type: none"> 2. The system will alert a message of unable to add user and will need try again.

*Table 3.3.3.1 Manage User – Use case Description***3.3.4 Lesson – Use Case Description****3.3.4.1 Lesson (Admin) – Use Case Description**

Use Case	Lesson
Purpose	To allow admin to provide learning content materials
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. Admin click on the add new lesson button link which will navigate to the next site for admin to

	<p>input topics, title, choose file type from dropdown list and choose lesson file.</p> <p>2. Once admin had done input the lesson details, next is to click on the upload button</p> <p>3. After click onto upload button will redirect back to the main page will show the lesson records table will appear the data input by admin including the lesson file.</p> <p>4. From the lesson record table there have operation where admin can have delete lesson and edit lesson button</p> <p>5. The delete button will remove the lesson data permanently.</p> <p>6. The edit button is for admin to update lesson record through input fields.</p>
<p>Alternative Flow</p>	<p>If unable to add lesson:</p> <p>1. Must try again by filling in input field and choose file.</p> <p>If the input field is empty when upload</p> <p>2. The error message of each input fields of lesson form will appear as validation input</p>

Table 3.3.4.1 Lesson (Admin) – Use case Description

3.3.4.2 Lesson (User) – Use Case Description

<p>Use Case</p>	<p>Lesson</p>
<p>Purpose</p>	<p>To allow user to retrieve lesson content materials uploaded by admin</p>
<p>Actor</p>	<p>User</p>
<p>Main Flow</p>	<p>1. The user can get the lesson learning materials from the lesson table record and download the lesson file.</p>
<p>Alternative Flow</p>	<p>None.</p>

Table 3.3.4.2 Lesson Module (User) – Use case Description

3.3.5 Exercise – Use Case Description**3.3.5.1 Exercise (Admin) – Use Case Description**

Use Case	Exercise
Purpose	To allow admin to create exercise questions and answers
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. Admin is require filling in questions on the input field and click on the create button. 2. The reset button is for the form to reset the value while input from the start again when admin have wrongly type in their value. 3. Admin click on the next button to navigate next page site will show the questions create by the admin and there will be true and false answers. 4. From the answer created below consist of delete button and edit button allow admin to perform their action. 5. The delete button is to remove each of the exercise question and answer. 6. The edit button is for update or make changes of the exercise question and answer.
Alternative Flow	<p>If cannot be able to create question and answer:</p> <ol style="list-style-type: none"> 1. The system will alert a message to the admin

*Table 3.3.5.1 Exercise (Admin) – Use case Description***3.3.5.2 Exercise (User) – Use Case Description**

Use Case	Exercise
Purpose	To allow user to attempt exercise question.
Actor	User
Main Flow	<ol style="list-style-type: none"> 1. The user can attempt each question that have been created by admin.

	2. Once complete attempt, user can click on the submit button.
Alternative Flow	If the questions is not attempt: 1. the system will alert to user the answer must be required to fill.

Table 3.3.5.2 Exercise (User) – Use case Description

3.3.6 Tutorial – Use Case Description

3.3.6.1 Tutorial (Admin) – Use Case Description

Use Case	Tutorial
Purpose	To allow admin to upload tutorial video for user
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. Admin can click on the insert video button link navigate to next site to fill in each input field of tutorial form. 2. Admin are required to fill in video name, choose video type from dropdown list and video file. 3. Admin click on the upload button once done input. 4. From the main page shown the tutorial table record consists of the video list and file which have been uploaded. 5. Admin can delete the tutorial record by clicking the delete button from the table record and will permanently remove each of the records. 6. Admin can click on the review video button to navigate on the next site have a view on the video for display.
Alternative Flow	<p>If unable to upload video:</p> <ol style="list-style-type: none"> 1. The system will show fail to upload a video as an error message. <p>If the input field is empty when upload:</p>

	2. The error message of each input fields of video form will appear as validation input.
--	------------------------------------------------------------------------------------------

Table 3.3.6.1 Tutorial (Admin) – Use case Description

3.3.6.2 Tutorial (User) – Use Case Description

Use Case	Tutorial
Purpose	To allow the user to view the video uploaded by admin
Actor	User
Main Flow	1. User can view each of the video that is upload from the admin.
Alternative Flow	None.

Table 3.3.6.2 Tutorial (User) – Use case Description

3.3.7 Quiz – Use Case Description

3.3.7.1 Quiz (Admin) – Use Case Description

Use Case	Quiz
Purpose	To allow admin to create quiz questions and answers
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. Admin is require filling in quiz questions on the input field and click on the create button. 2. Admin click on the next button to navigate next page site will show the quiz questions create by the admin and there will be four options (A, B, C and D) answers. 3. From the quiz answer created below have shown delete button and edit button allow admin to perform their action. 4. The delete button is to remove each of the quiz question and answer. 5. The edit button is for update or make changes of the quiz question and answer.

Alternative Flow	<p>If cannot be able to create quiz question and answer:</p> <ol style="list-style-type: none"> 1. The system will alert a message “Cannot create quiz question and answer”.
-------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Table 3.3.7.1 Quiz (Admin) – Use case Description

3.3.7.2 Quiz (User) – Use Case Description

Use Case	Quiz
Purpose	To allow user to attempt quiz question
Actor	User
Main Flow	<ol style="list-style-type: none"> 1. From the user main page, user can click on the attempt quiz button to navigate to the next site 2. The user can be able to attempt each quiz question that have been created by admin from the next site. 3. Once complete attempt, user can click on the submit button. 4. The user click submit will redirect them by showing the correct quiz answer.
Alternative Flow	<p>If the quiz questions is not attempt:</p> <ol style="list-style-type: none"> 1. the system will alert to user the answer must be required to fill for each of the question.

Table 3.3.7.2 Quiz (User) – Use case Description

3.3.8 Gallery – Use Case Description

3.3.8.1 Gallery (Admin) – Use Case Description

Use Case	Gallery
Purpose	To allow admin to upload images for the users to view
Actor	Admin
Main Flow	<ol style="list-style-type: none"> 1. Admin can click on the insert image button link navigate to next site to fill in each input field of

	<p>tutorial form while above shown display the gallery table records.</p> <ol style="list-style-type: none"> 2. Admin are required to fill in image name, date/time, description, and image file. 3. Admin click on the upload button once done input the image details. 4. After the system have upload image, the table records of image above will print image lists and files. 5. Admin can delete each of the image record by clicking the delete button. 6. Admin can edit image by updating the image lists. 7. Back to admin main page site will display an image and image name.
<p>Alternative Flow</p>	<p>If cannot be able to upload image:</p> <ol style="list-style-type: none"> 1. The system will prompt an alert message as fail to upload an image as an error message. <p>If the input field is empty when upload:</p> <ol style="list-style-type: none"> 2. The error message of each input fields of gallery form will appear as validation input.

Table 3.3.8.1 Gallery (Admin) – Use case Description

3.3.8.2 Gallery (User) – Use Case Description

<p>Use Case</p>	<p>Gallery</p>
<p>Purpose</p>	<p>To allow user to view the images uploaded by admin</p>
<p>Actor</p>	<p>User</p>
<p>Main Flow</p>	<ol style="list-style-type: none"> 1. User can be able to view the image that is upload from the admin. 2. User can click on the view info button below the image to have a look on the image name,

	datetime and description for getting the details of the images.
Alternative Flow	None.

Table 3.3.8.2 Gallery (User) – Use case Description

3.3.9 Mail – Use Case Description

Use Case	Mail
Purpose	To allow admin/user to send message
Actor	Admin, User
Main Flow	<ol style="list-style-type: none"> 1. Admin/User can allow message by type into the input field consists of from email to email, subject, and message. 2. From to admin main page site allow admin to click on the review chat history button for navigating to next site show the conversation among admin and users. 3. The message can be received or view through mailbox which the online system platform is connecting to the mail server.
Alternative Flow	<p>If message is unable to send:</p> <ol style="list-style-type: none"> 1. The system have mail fail to send.

Table 3.3.9.1 Mail – Use case Description

3.4 Activity Diagram

Activity diagram refers as a behavioral diagram of the system which the process flow illustrates the steps performing the event of the system. It represents as control flow for the starting point to the end point showing the path of decision where it exits as the activity is being executed. The workflow of the diagram provides the ability to modelized the processes. The activity diagram will be shown the flow of the system.

3.4.1 Sign up – Activity Diagram

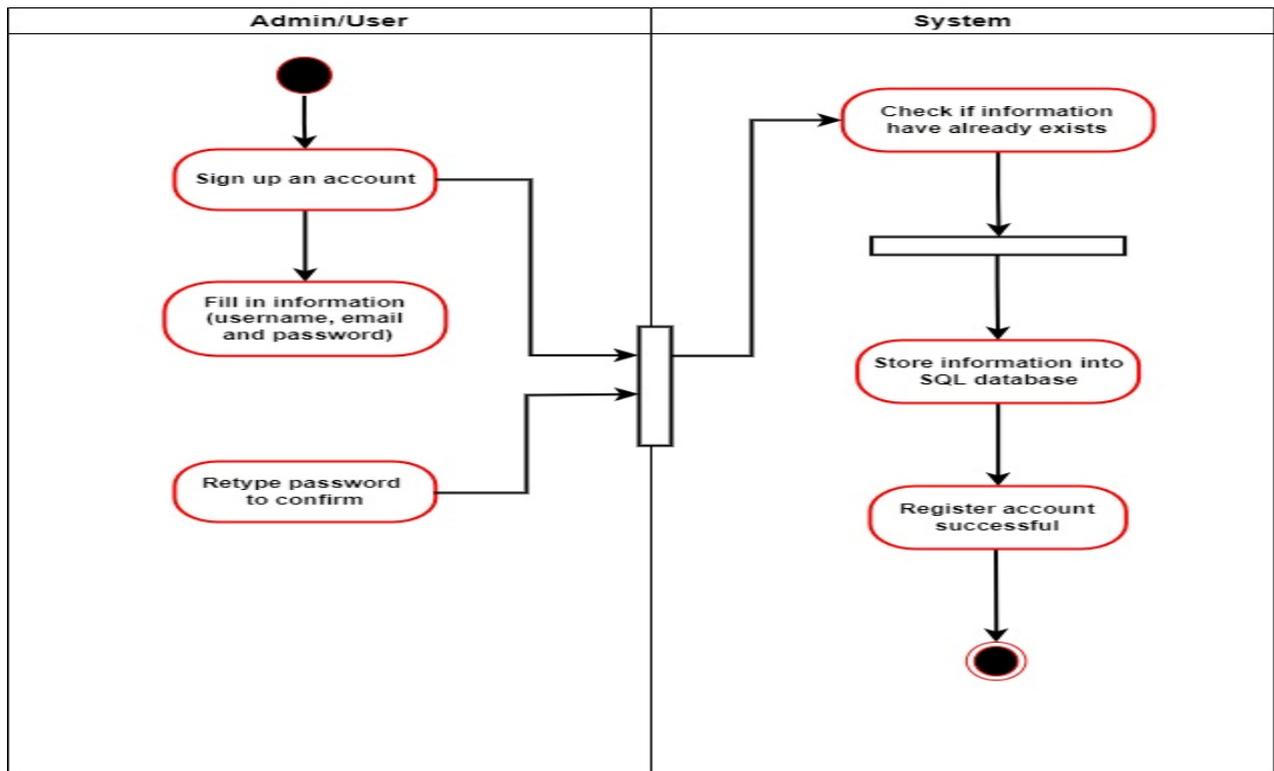


Figure 3.4.1.1 Sign up – Activity Diagram

3.4.2 Login – Activity Diagram

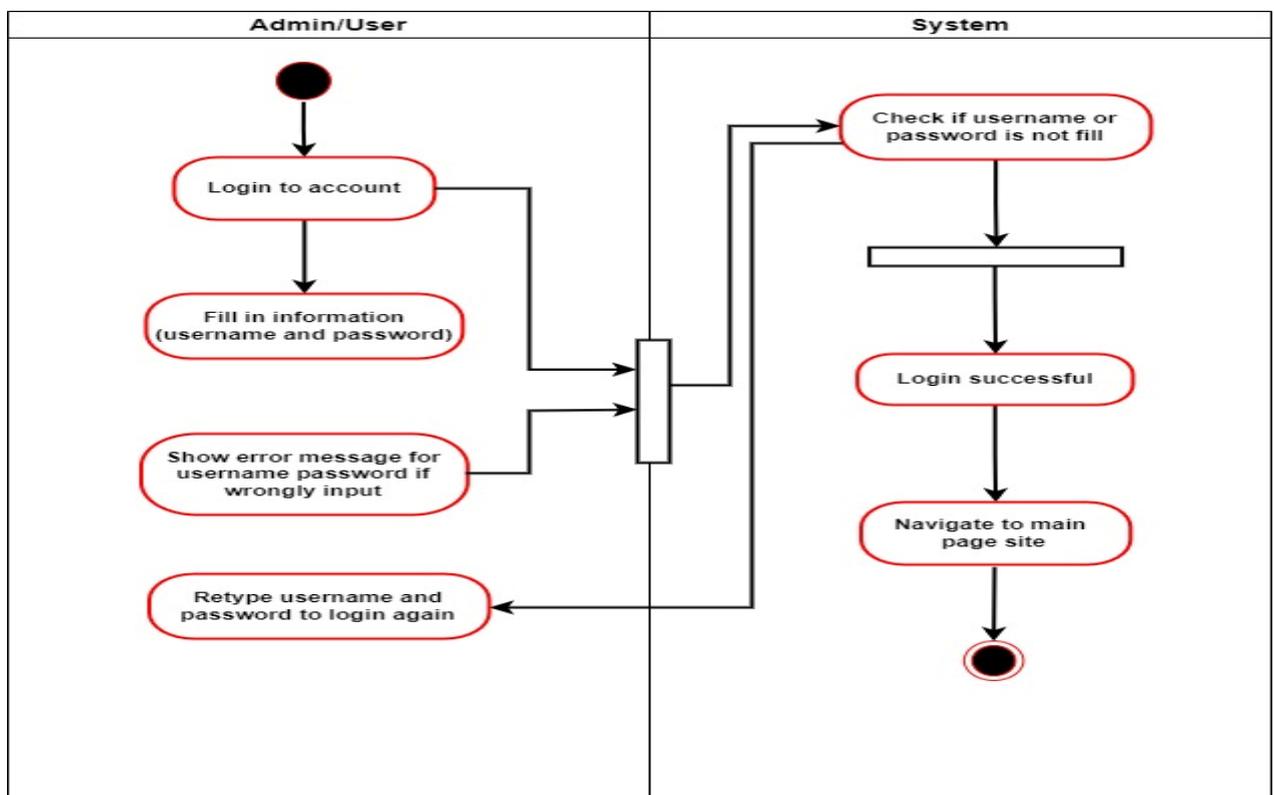


Figure 3.4.2.1 Login – Activity Diagram

3.4.3 Manage User – Activity Diagram

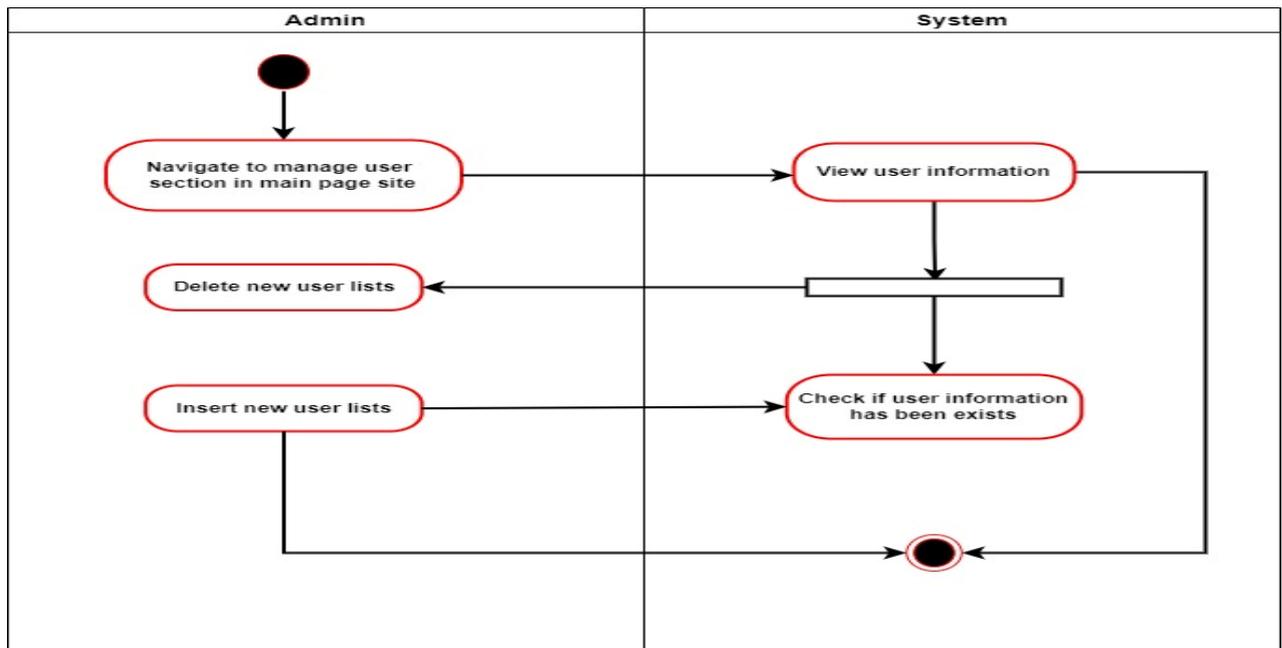


Figure 3.4.3.1 Manage User – Activity Diagram

3.4.4 Lesson – Activity Diagram

3.4.4.1 Lesson (Admin) – Activity Diagram

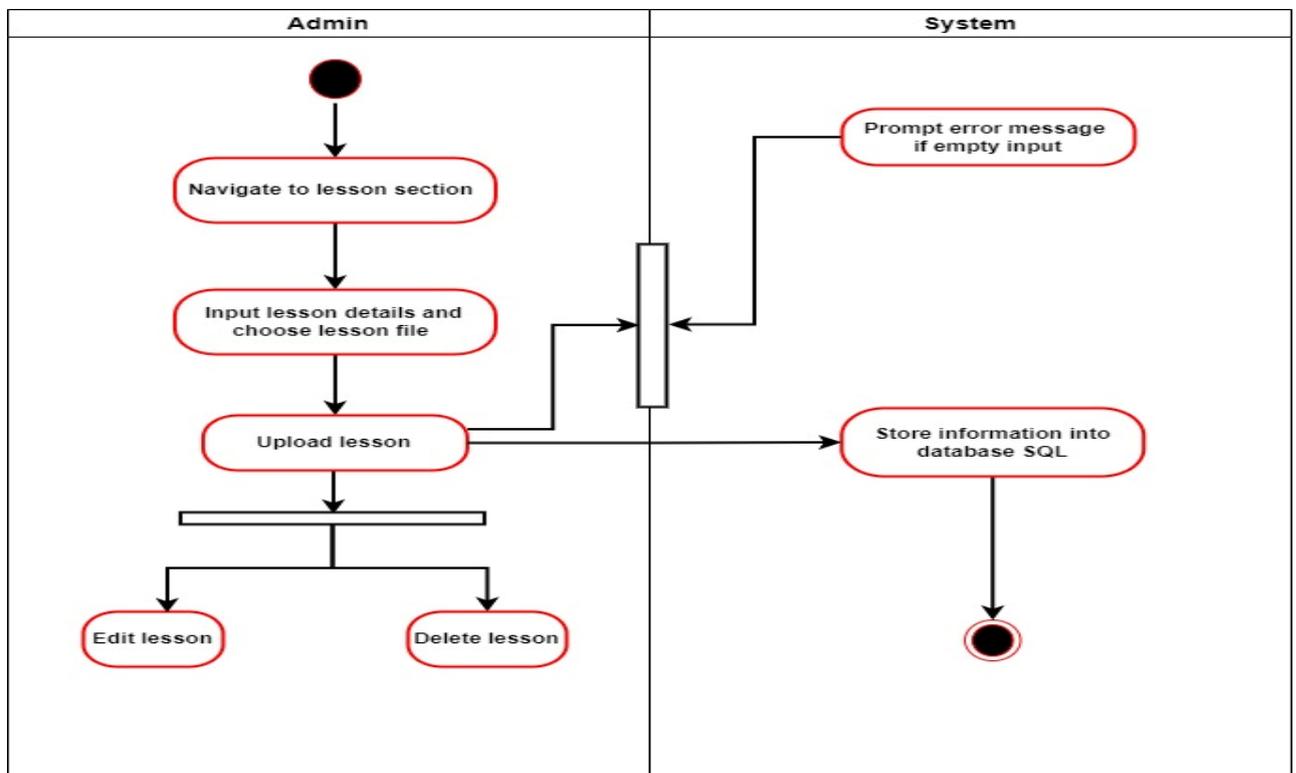


Figure 3.4.4.1 Lesson (Admin) – Activity Diagram

3.4.4.2 Lesson (User) – Activity Diagram

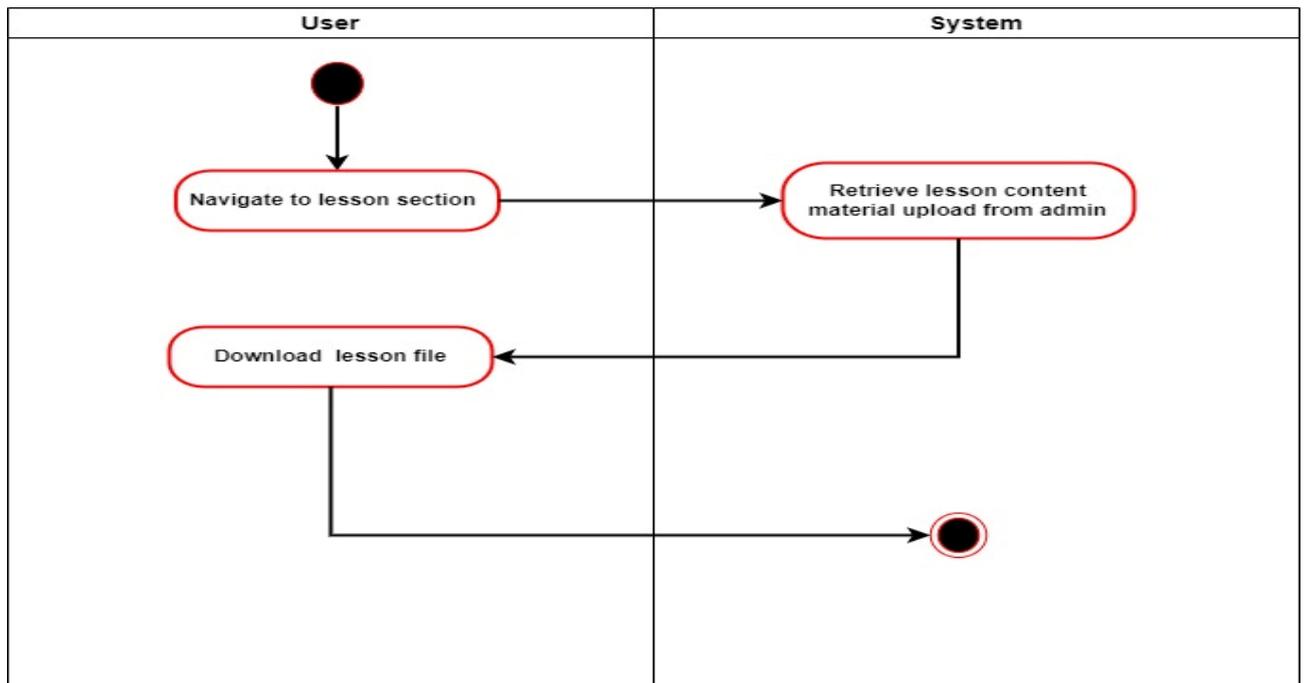


Figure 3.4.4.2 Lesson (User) – Activity Diagram

3.4.5 Exercise – Activity Diagram

3.4.5.1 Exercise (Admin) – Activity Diagram

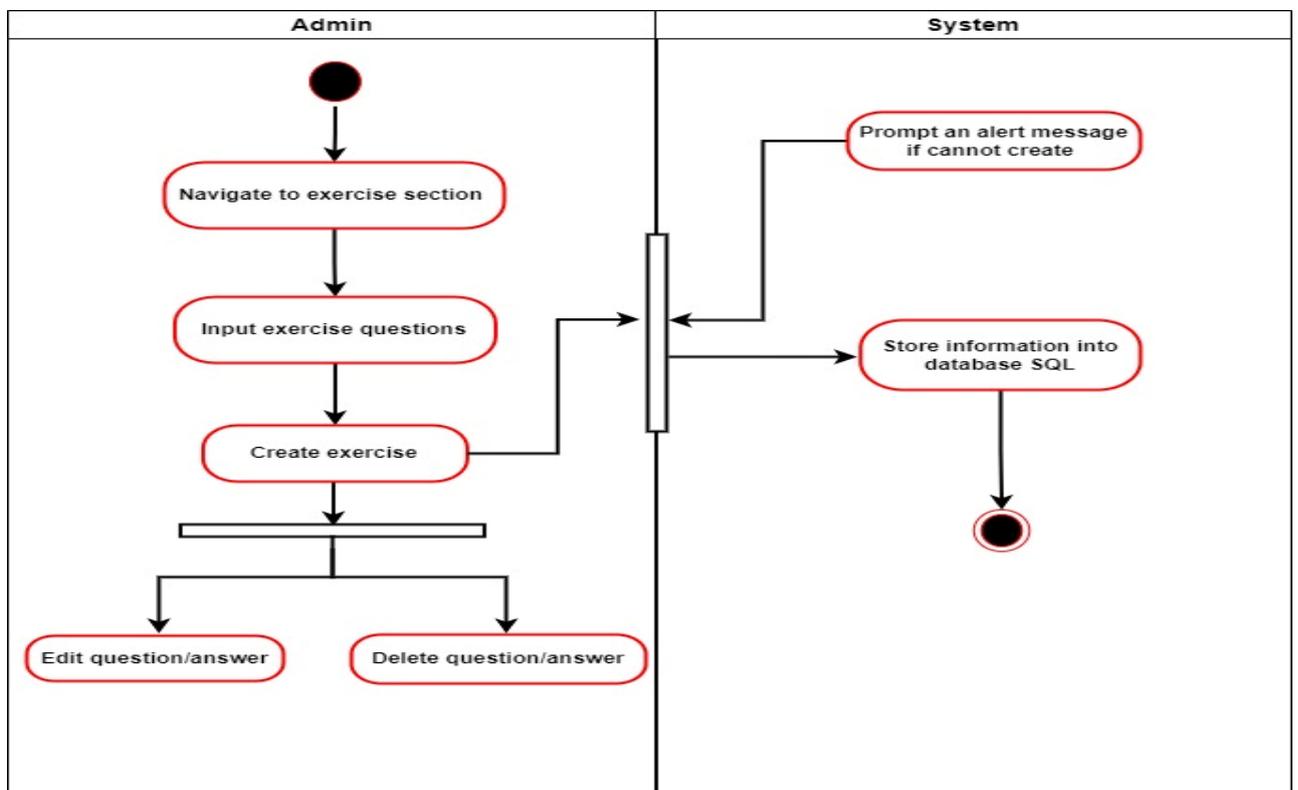


Figure 3.4.5.1 Exercise (Admin) – Activity Diagram

3.4.5.2 Exercise (User) – Activity Diagram

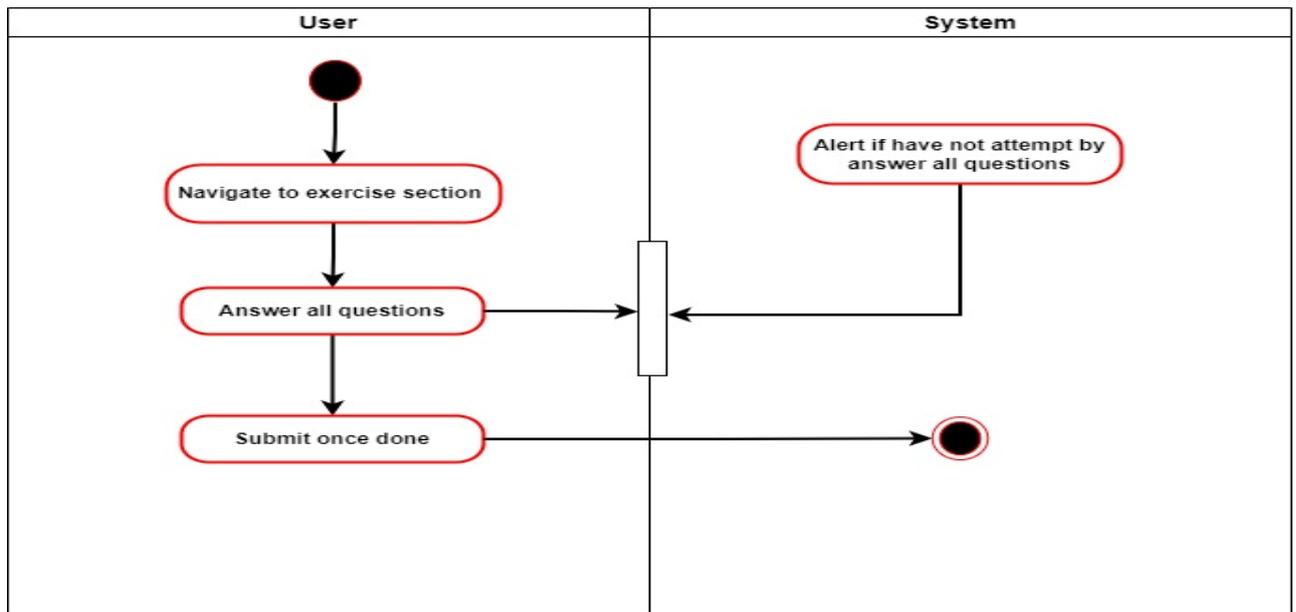


Figure 3.4.5.2 Exercise (User) – Activity Diagram

3.4.6 Tutorial – Activity Diagram

3.4.6.1 Tutorial (Admin) – Activity Diagram

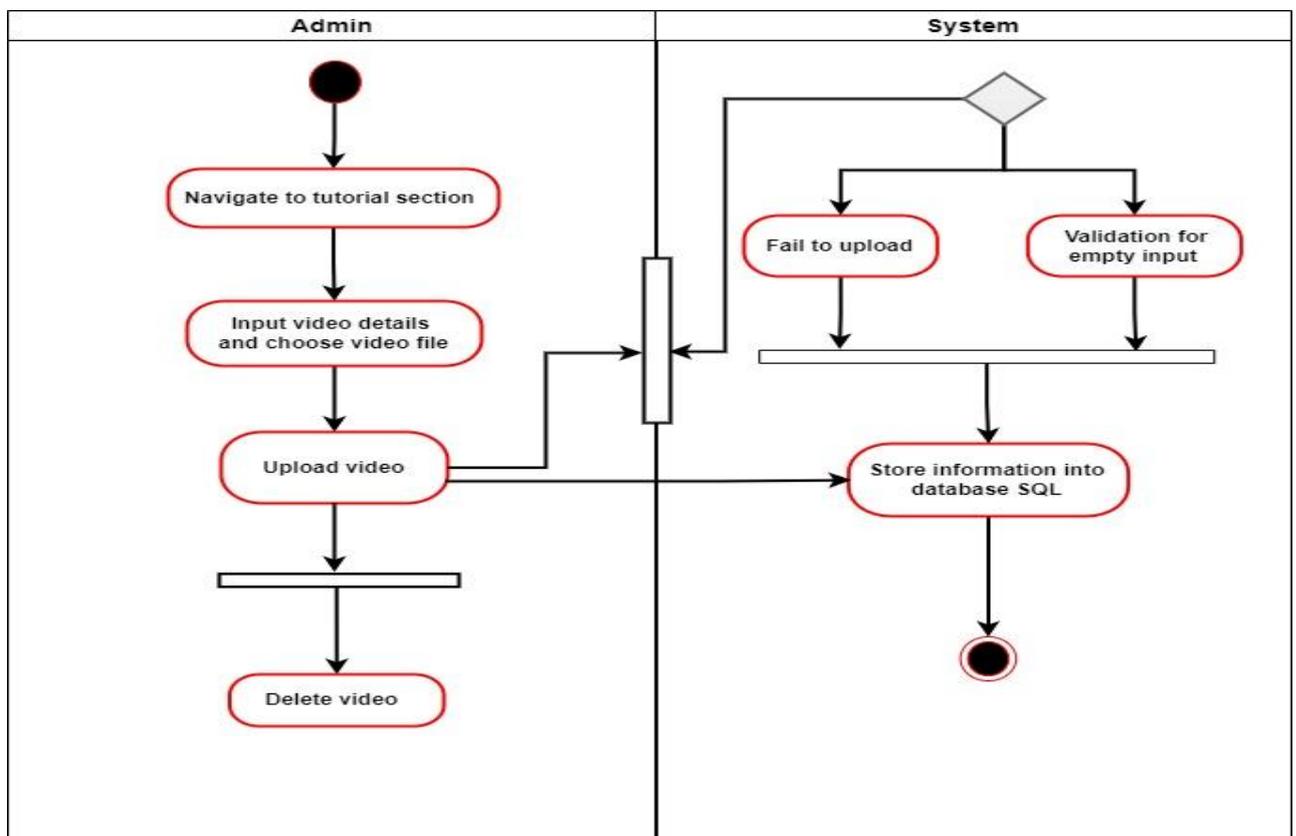


Figure 3.4.6.1 Tutorial (Admin) – Activity Diagram

3.4.6.2 Tutorial (User) – Activity Diagram

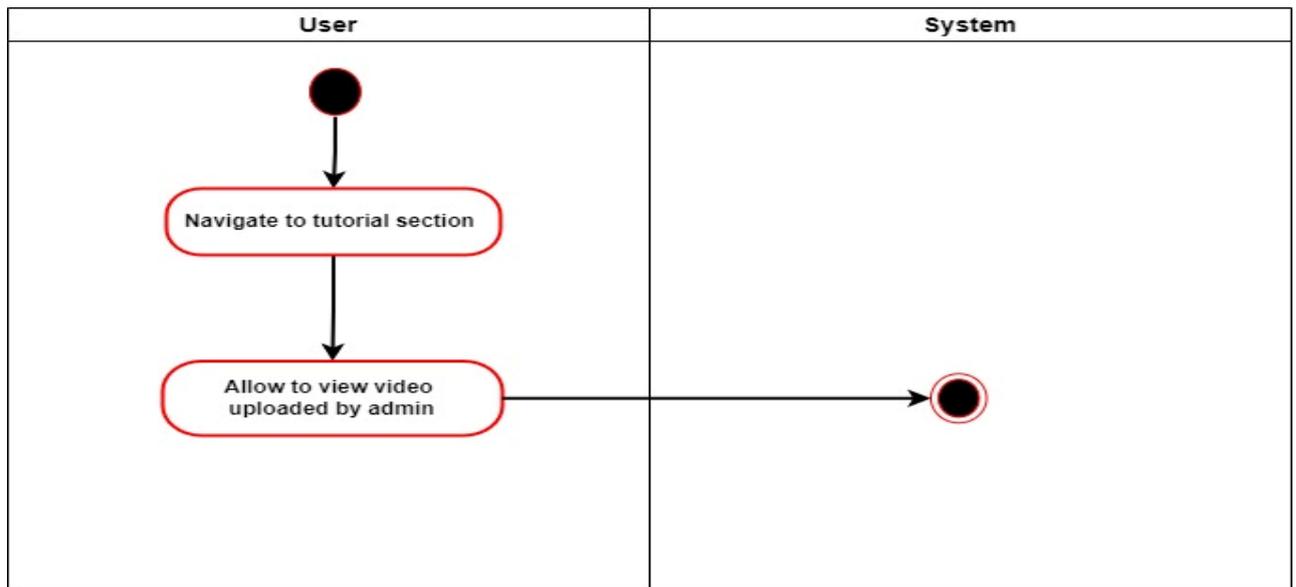


Figure 3.4.6.2 Tutorial (User) – Activity Diagram

3.4.7 Quiz – Activity Diagram

3.4.7.1 Quiz (Admin) – Activity Diagram

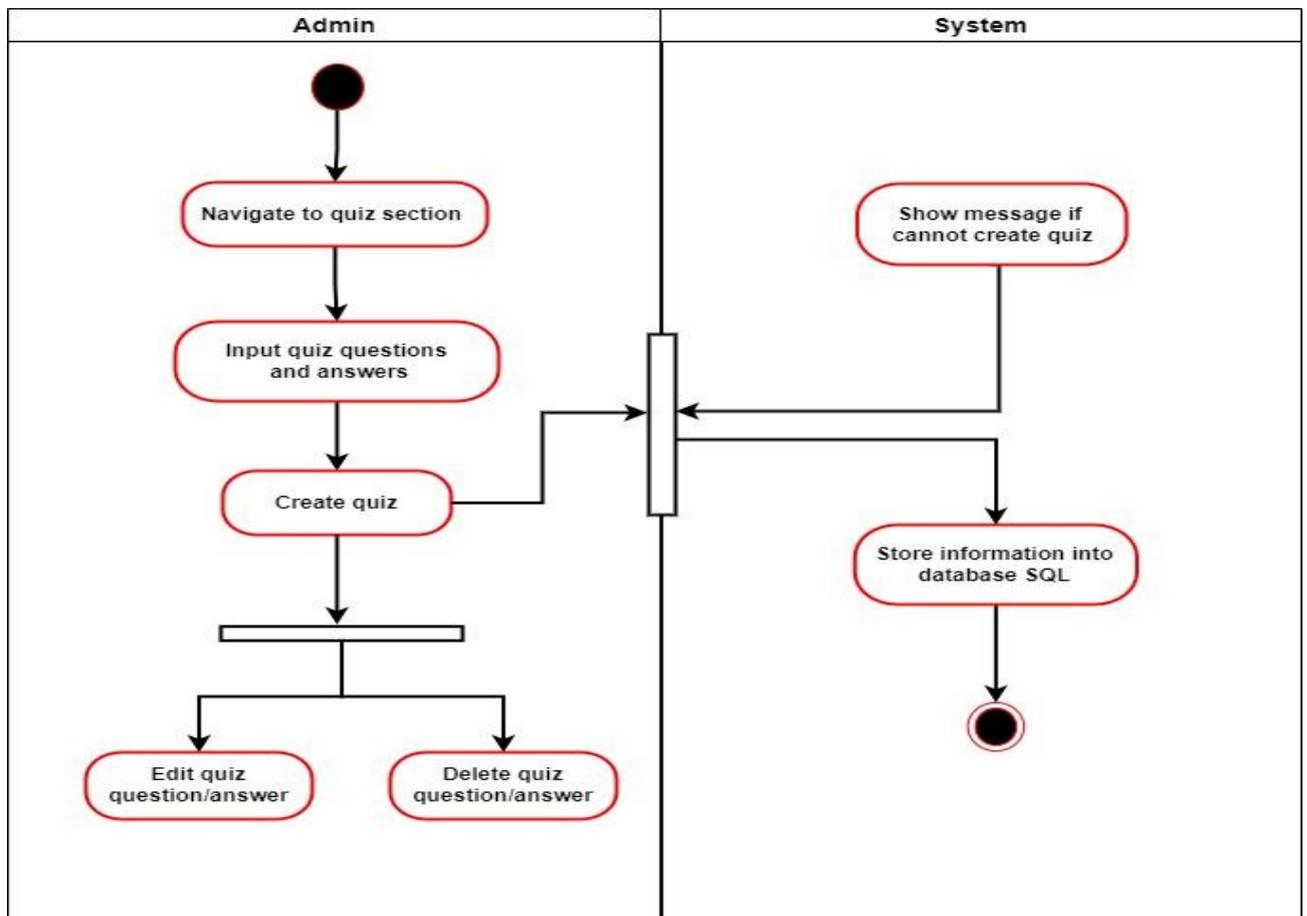


Figure 3.4.7.1 Quiz (Admin) – Activity Diagram

3.4.7.2 Quiz (User) – Activity Diagram

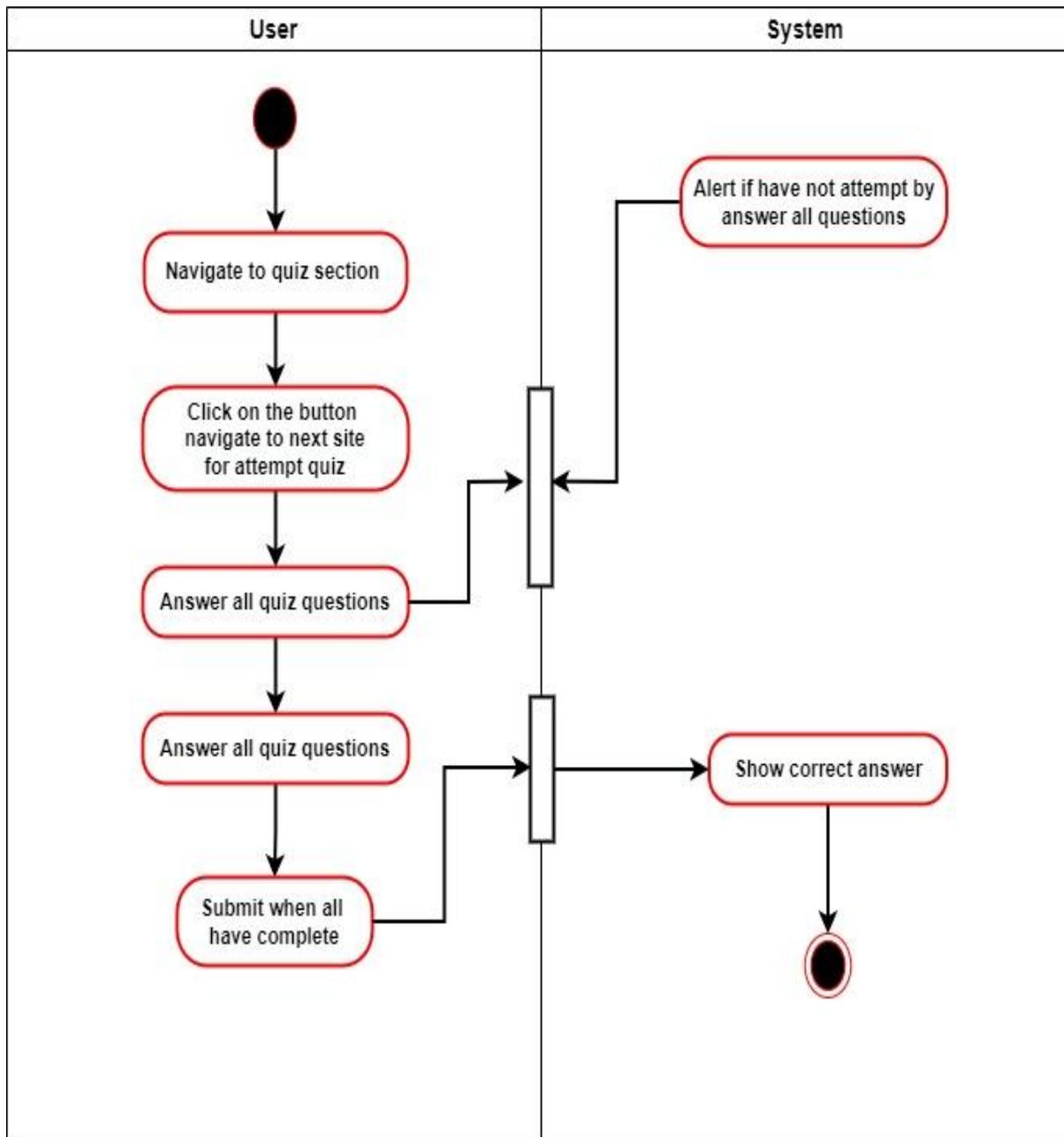


Figure 3.4.7.2 Quiz (User) – Activity Diagram

3.4.8 Gallery – Activity Diagram

3.4.8.1 Gallery (Admin) – Activity Diagram

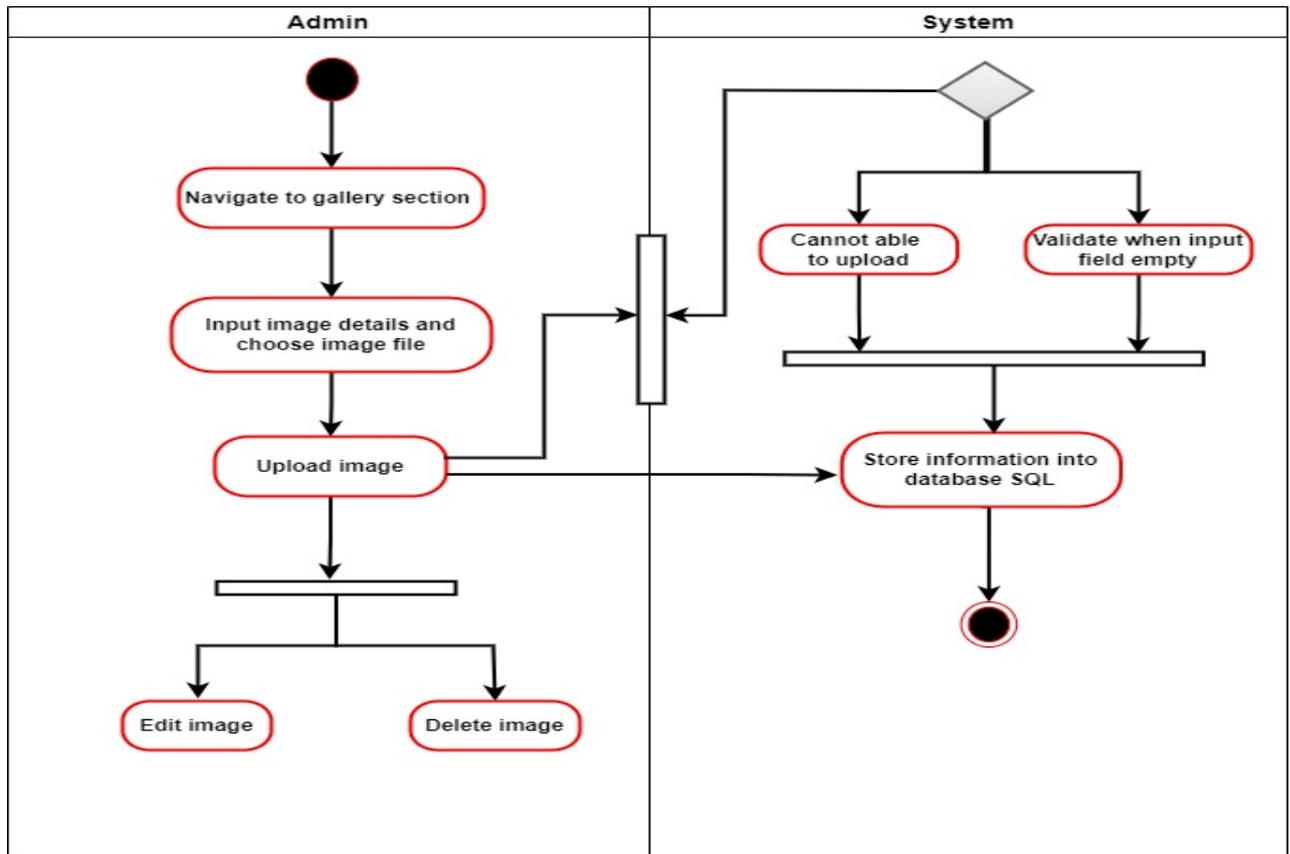


Figure 3.4.8.1 Gallery (Admin) – Activity Diagram

3.4.8.2 Gallery (User) – Activity Diagram

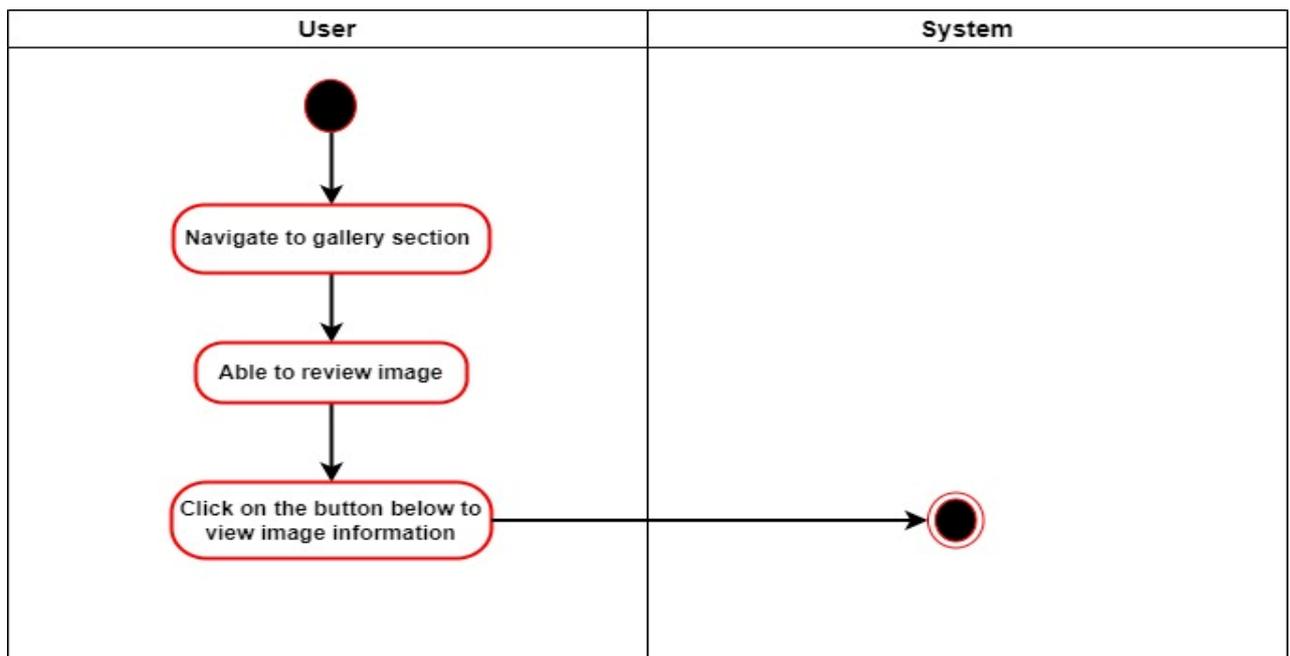


Figure 3.4.8.2 Gallery (User) – Activity Diagram

3.4.9 Mail – Activity Diagram

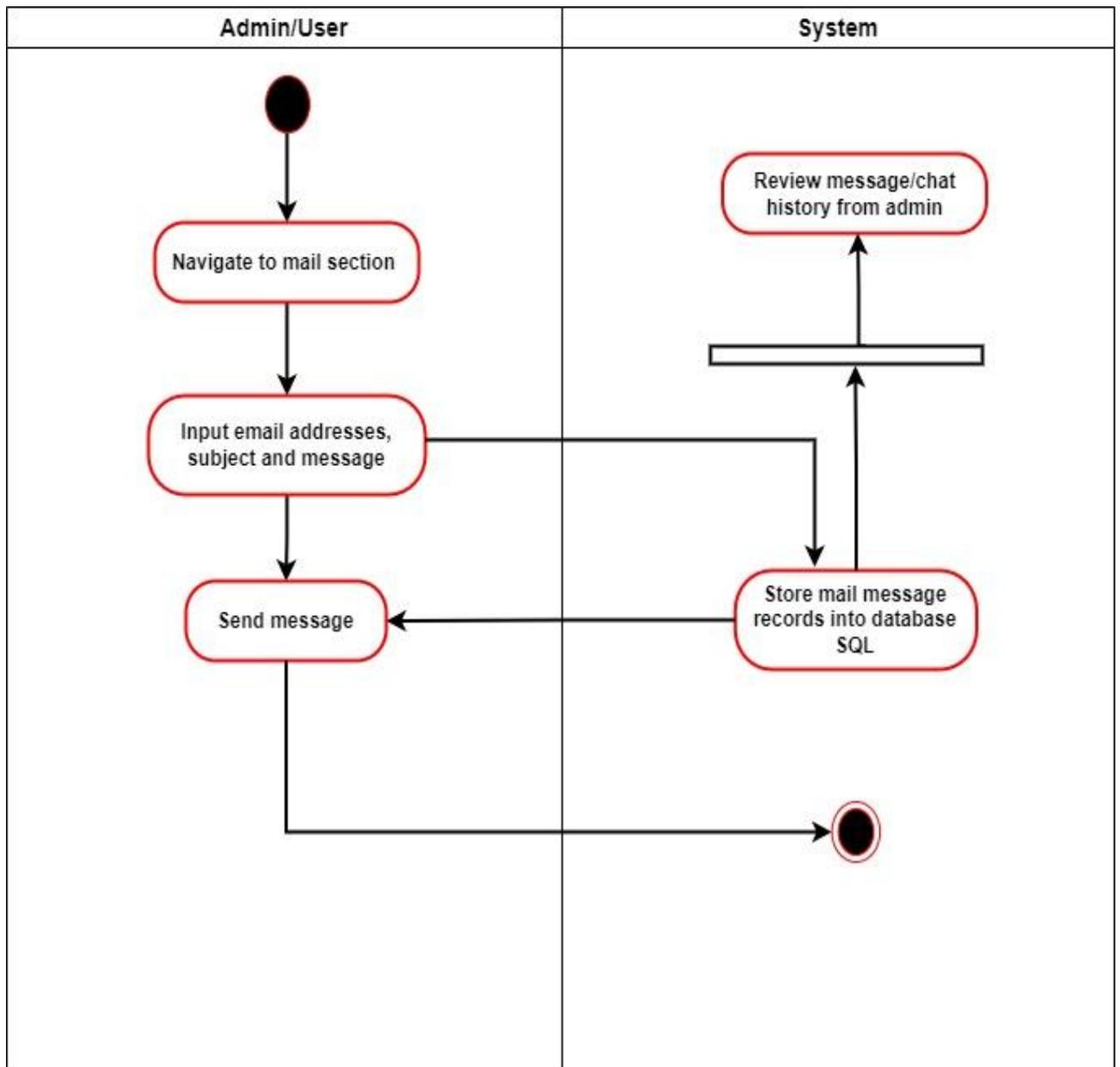


Figure 3.4.9.1 Mail – Activity Diagram

Chapter 4 System Design

4.1 System Block Diagram

Block diagram represents as a visualize of a system defines with providing a convenient and labelled block as a single or multiple of objects, concepts that is connecting through lines to show the relationships among them. The diagram can be also known as a high-level of flowchart in forms of engineering process as it used for design new systems to display with the structure of the system components.

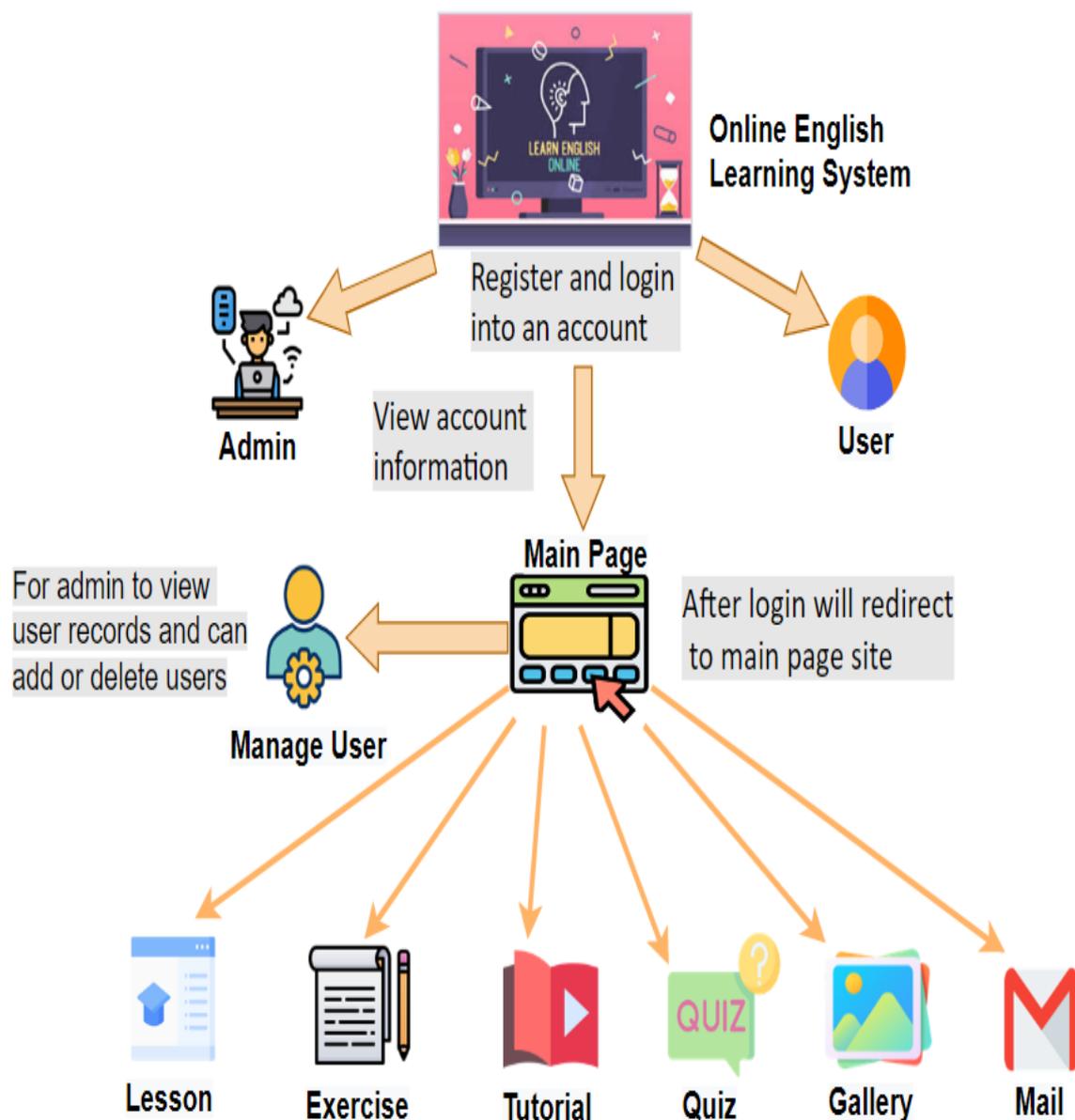


Figure 4.1.1 System Block Diagram

Sign up/Login into account – The account is for admin and user to register and login into an account before gain access to system main page. The account of the system can be restricted if it the details is not filled by leaving blank or enter the same existing details. Once have access into main page, admin or user enable to view their account information.

Manage User – The admin to manage the user list records by verify on each of the user have registered their account while can insert new user lists or delete permanently.

Lesson – Admin can add new lesson or upload, update and delete with the functions provided in the system. User can be able to retrieve and download lesson content materials that is published from admin.

Exercise – Admin enable to create exercise questions which is true or false answers included while can be update or remove. User can answer each questions given and submit once they have completed.

Tutorial – For admin to insert or upload and delete tutorial video while user can be able to view and play each of the video.

Quiz – Admin can create quiz questions which consists of four options of answers, can be also update or remove. User can answer each of the questions given and submit once they have completed while review the correct answer from each question.

Gallery – Admin can insert, or upload images including edit and delete as well as user can view the info and description of each of the images that has been published in the system.

Mail – Admin and user enable to send or receive mail message through the form provide input field requesting email address, subject and message. Meanwhile, admin also can track on chat history after sending or receive.

4.2 Flowchart

Flowchart is a set of process flow for the diagram activity to perform the task with representing the steps and decisions. It allows the users to view it as logically by following the process from the starting to the end. The chart provides with shapes to design by providing different shapes such as symbols to outline their framework. The figure of the flowchart below shown the admin and user process flow.

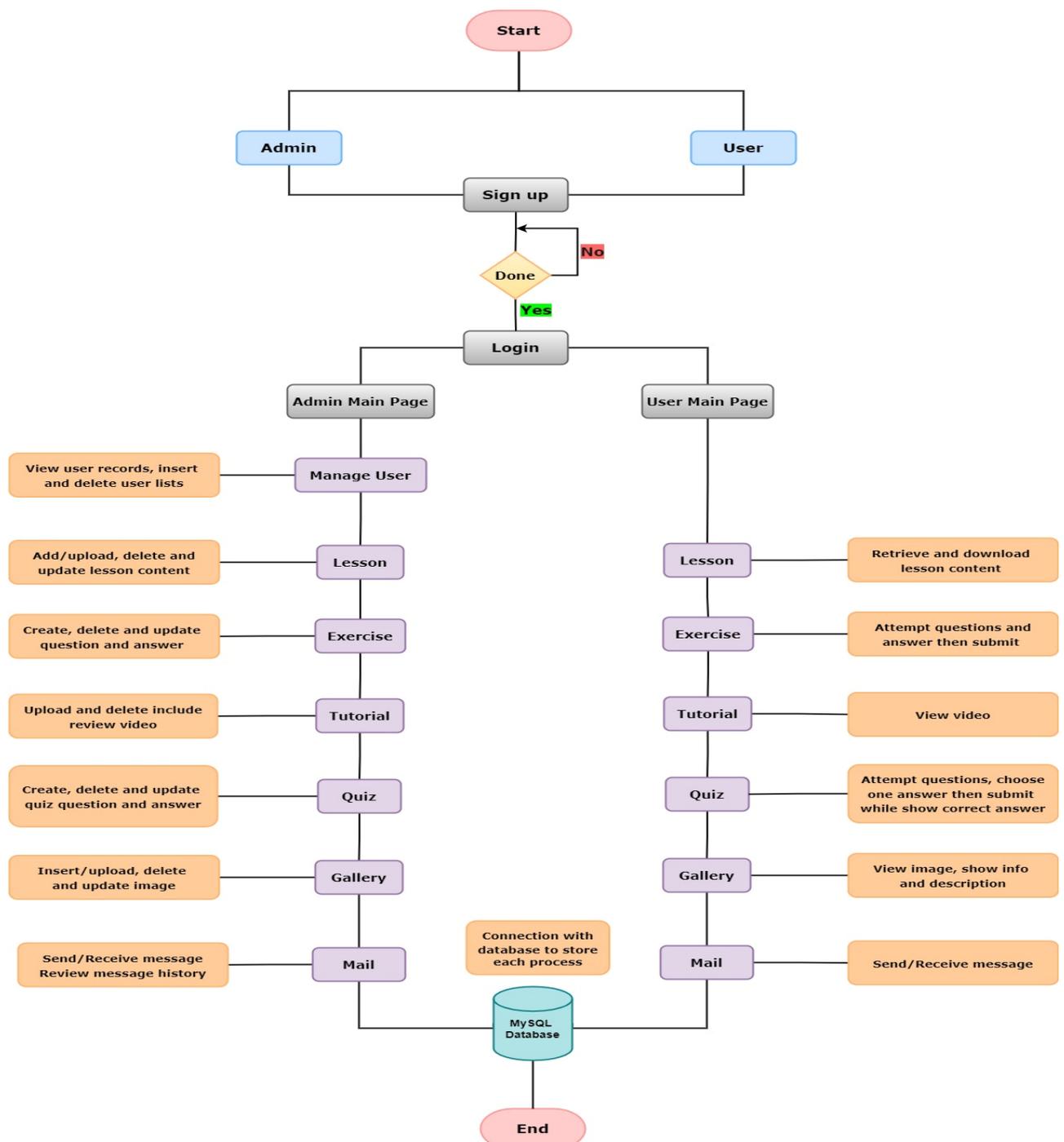


Figure 4.2.1 Flowchart

4.3 ERD Diagram

The entity relationship diagram (ERD) specifies as a set of entities which store various of database with creating tables and attributes. It also defines the properties when it consists of the attributes because the entity sets has the similar collection within each component while it illustrates the relationship to match for the link of parent and child table. The diagram below shown each entity of the table relations.

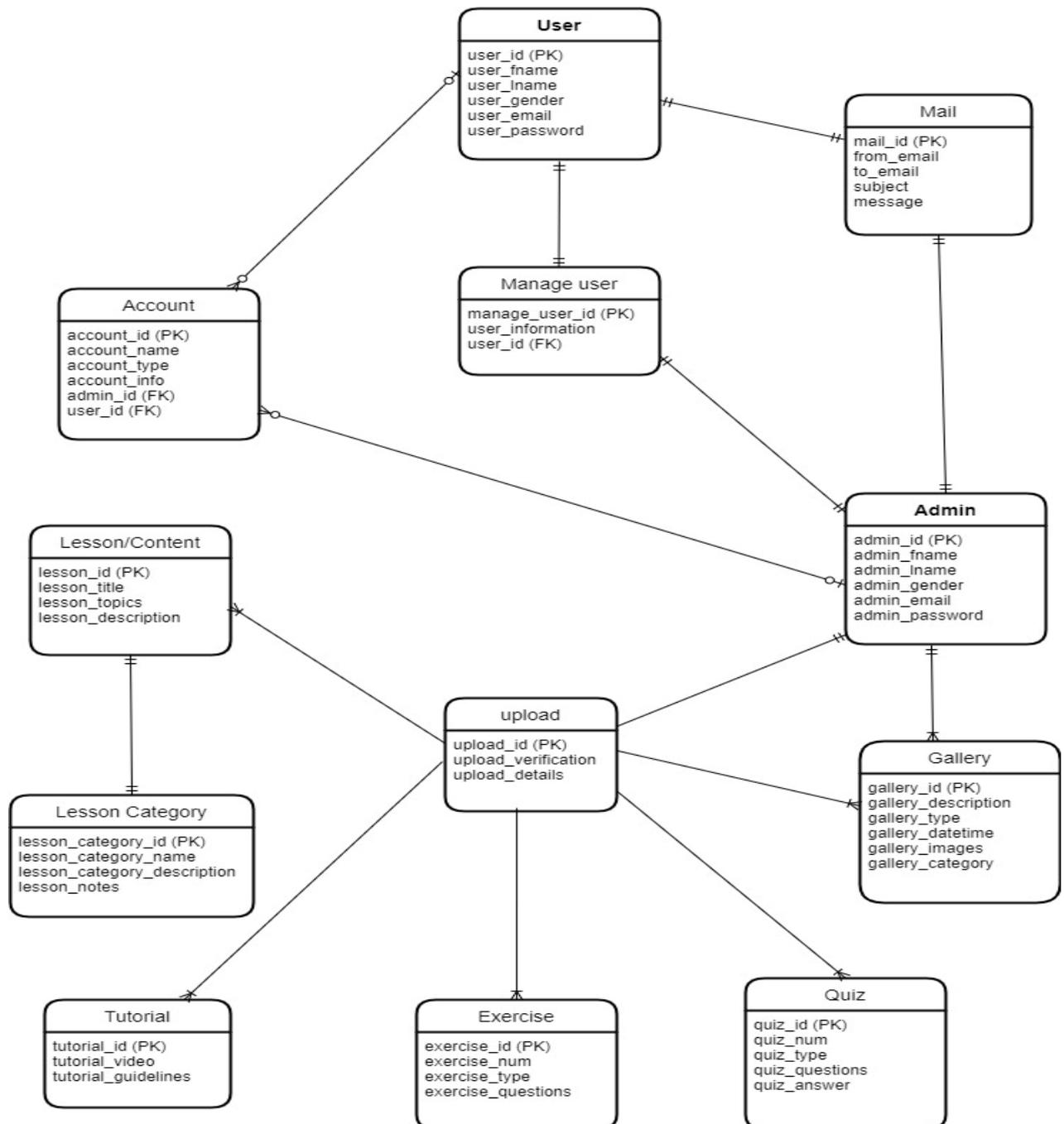


Figure 4.3.1 ERD Diagram

4.4 Functional Requirement and Non-Functional Requirement

	Functional Requirement
Admin	Able to sign up, login or logout to the account and view account information.
	Able to manage user record lists by insert or delete.
	Able to add/upload, edit and delete lesson content materials.
	Able to create, update and delete exercise question and answer.
	Able to insert/upload or delete tutorial video.
	Able to create, update and delete quiz question and answer.
	Able to insert/upload, edit or delete gallery image.
	Able to send/receive mail message to user and review message history.
User	Able to sign up, login or logout for account and view account information.
	Able to retrieve lesson content materials and download from file.
	Able to answer exercise questions by choosing true or false answer and submit.
	Able to view tutorial video.
	Able to answer quiz questions by choosing only one answer and can review the correct answer after submitting.
	Able to view image information from gallery.
	Able to send/receive mail message to admin.

Table 4.4.1 Functional Requirement

	Non-Functional Requirement
Compatibility	The system can be availability for online mode and the performance can be well support as the system manage to load on the browse with connecting to the server.
Security	If the admin or user is unable to login into their account, they are requiring trying attempt once again.
	The system will prompt to the admin or user to type their username and password again if the system cannot detect through their account information.
	The system will detect on the account whether have the duplication of similar records of username or password.

<p>Usability</p>	<p>The system can navigate to the next page site when the link or button is clicked by the admin or user within their demand to allow them to review the system.</p> <p>system will alert an error message if the input field is empty while prompt to require filling in details.</p>
<p>Capacity</p>	<p>The system cannot consume large of files or videos which are lengthy as the system is lack of capacity storage only can be uploaded individually.</p>

Table 4.4.2 Non-Functional Requirement

4.5 Project Timeline

4.5.1 Project 1 Timeline

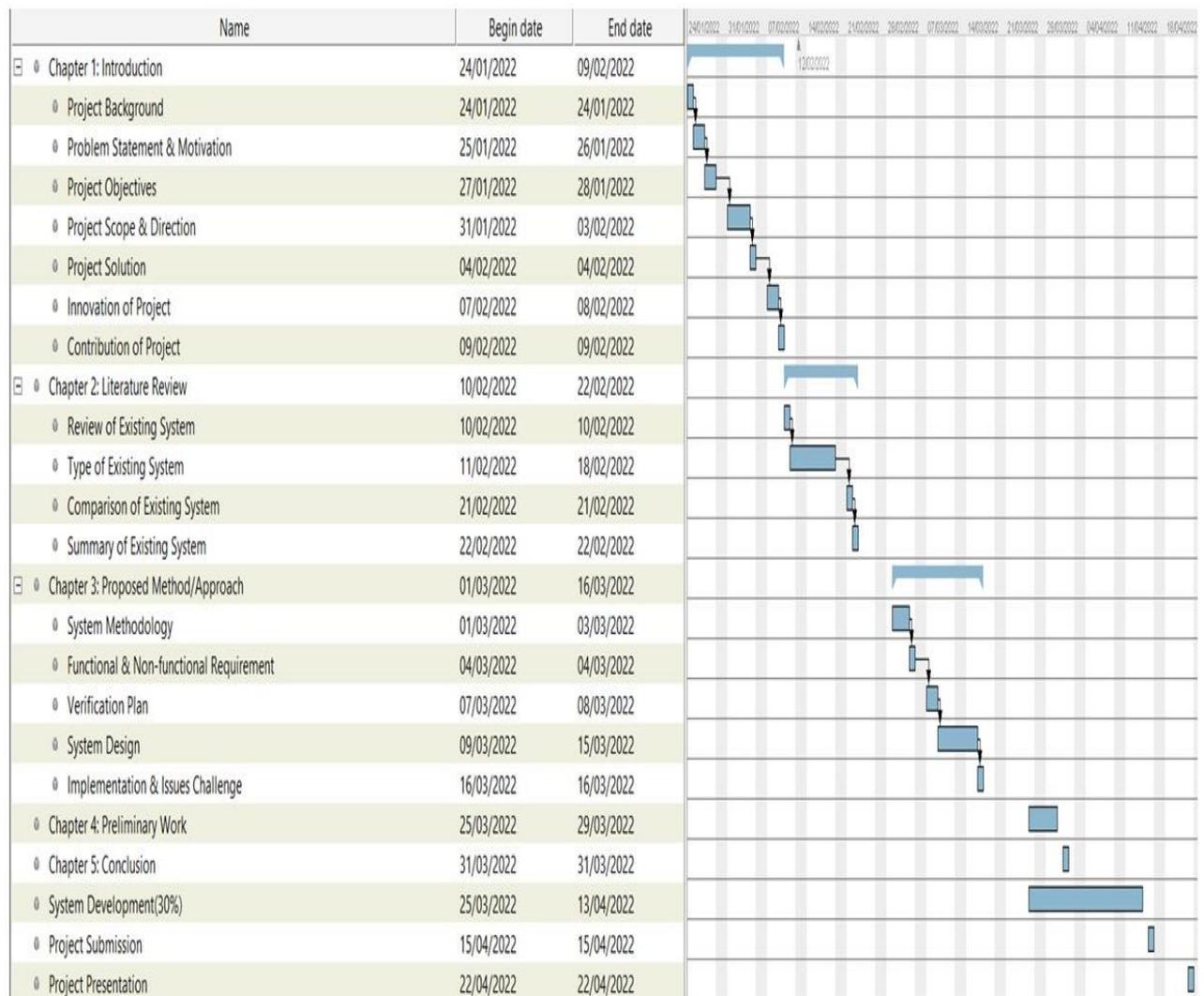


Figure 4.5.1.1 Project 1 Timeline

The figure above shown is the Gantt chart of FYP1 project timeline for this semester task planning. The first starting of this project is the project introduction have project background, project statement and motivation, project objectives, project scope and direction, project solution, innovation of project and contribution of project. For the project scope is defining each of the module for the implementation of online system as each of the structure require some time to plot for the development.

The following content of the project is the literature review which consists of review and type of existing systems. After choosing five of the existing systems, the existing systems provides comparison to verify each of their features that consists in the system while the requirement can be determined the proposed system where it can be improved to fulfil the community requirement needs. As for the proposed methods/approach of the project will need system methodology lifecycle stages which is known as SDLC process, functional of non-functional requirement from each admin and user. The verification plan is to show about how the system development of the user interface likely to be implement. The system design consists of flowchart, use case diagram, activity diagram, and ERD diagram. Finally, the proposed method will need the expectation implementation and issues challenges for the project is resulting the project development may have faced difficulty through planning and management of time estimate for the project to complete.

The next stage will be the preliminary work which is the implementation of project development for the user interface. It requires some time about a few weekends for the implementation to be complete, the system also need several implementations testing for debug and evaluation process. The last project statement is the conclusion to finalize the progress of the proposed system and finally for the whole system user interface delivering and the project completing by submitting the report content. The remaining is for the proposed system to demonstrate to the client.

4.5.2 Project 2 – Timeline

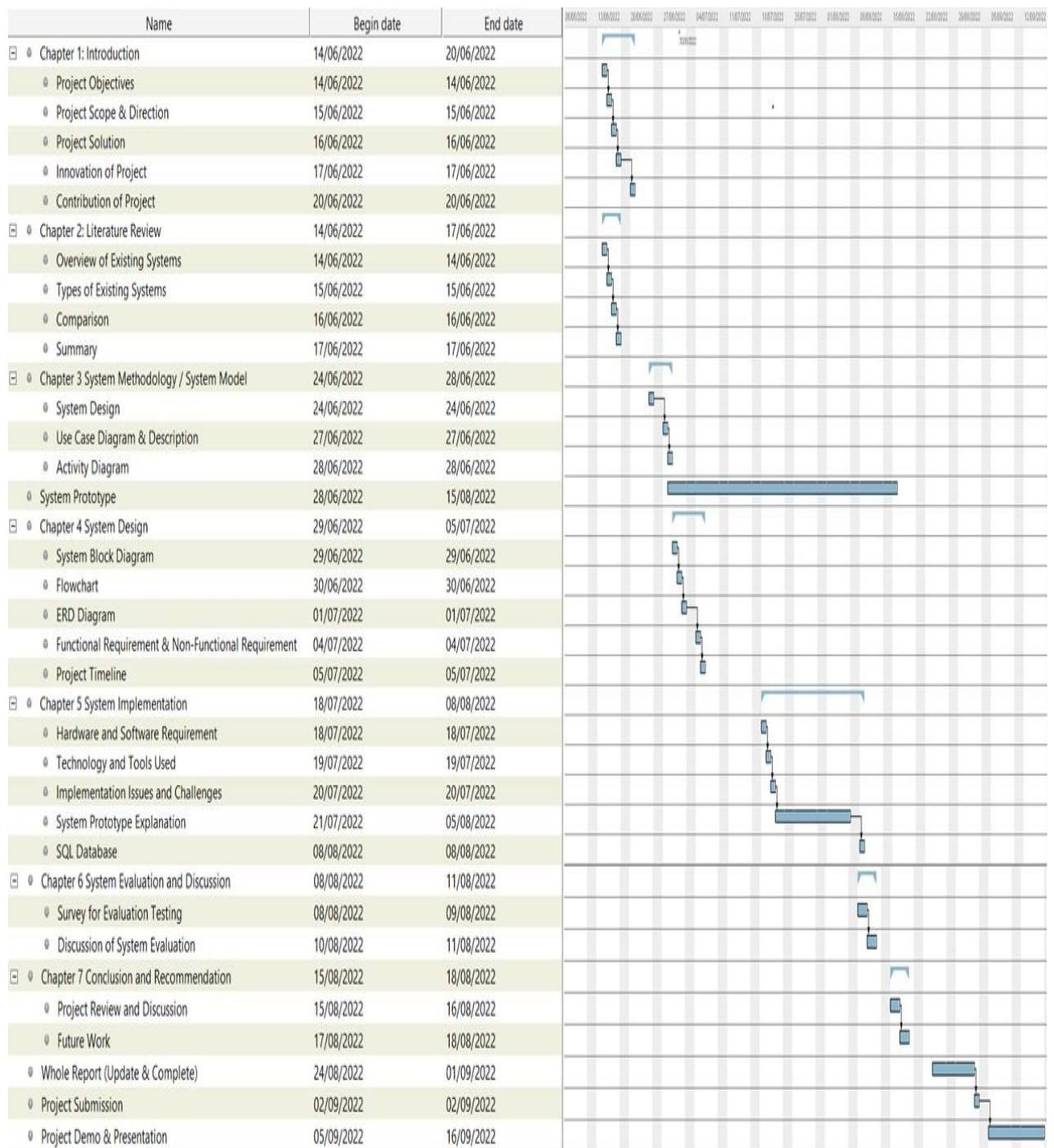


Figure 4.5.2.1 Project 2 Timeline

The figure above shown is the Gantt chart of FYP2 project timeline represent for the whole system prototype and documentation task planning before submission deadline. The second project have consisted of more workflow than first project as this project represents the complete version of project as it distributes both part with continuous work of contribution.

Chapter 4 System Design

The continuous project assessment would most probably more on system prototype implementation, system survey testing and additional description of the system required need for the report documentation. The appropriate need of the project information is based on the guidelines by explaining the details regarding the development of the project. The use case diagram has added the description to show the actions performed by admin and users provide with more details such as the module developed in the system. The activity diagram has been updated to show the activity flow of the system which consists of admin and user describe on how they perform their activity through the system.

From this project require another system design diagrams such as the block diagram to represent on flow of the system delivered. Thus, the project deliver is also based on the system prototype implementation which also need time estimation when it can be completed within this semester while from the report need to provide screenshot of the system prototype by describe each of the features they have. The survey is also required for the project to illustrate an evaluation testing result from the participants.

The last chapter is about the project review, conclusion and discussion. The report is to elaborate about what the project had encountered and what can be improved in the future. The whole report will need to be update by strengthen the complete version with cover page, title, table content, list of abbreviations and figures, declaration form and the following format requirement needed for the project before submitting.

Chapter 5 System Implementation

5.1 Hardware and Software Requirement

5.1.1 Hardware Setup

Hardware	Specification
Device Type	HP Envy 13 Laptop PC
Processor	Intel (CoITM) i5-8265U CPU @ 1.60GHz 1.80 GHz
Memory	8.00 GB (7.83 GB usable)
Input device	Mouse, Keyboard
RAM	4GB - 8GB
Graphics Card	Nvidia GeForce MX250 GPU

Table 5.1.1.1 Hardware Setup

5.1.2 Software Setup

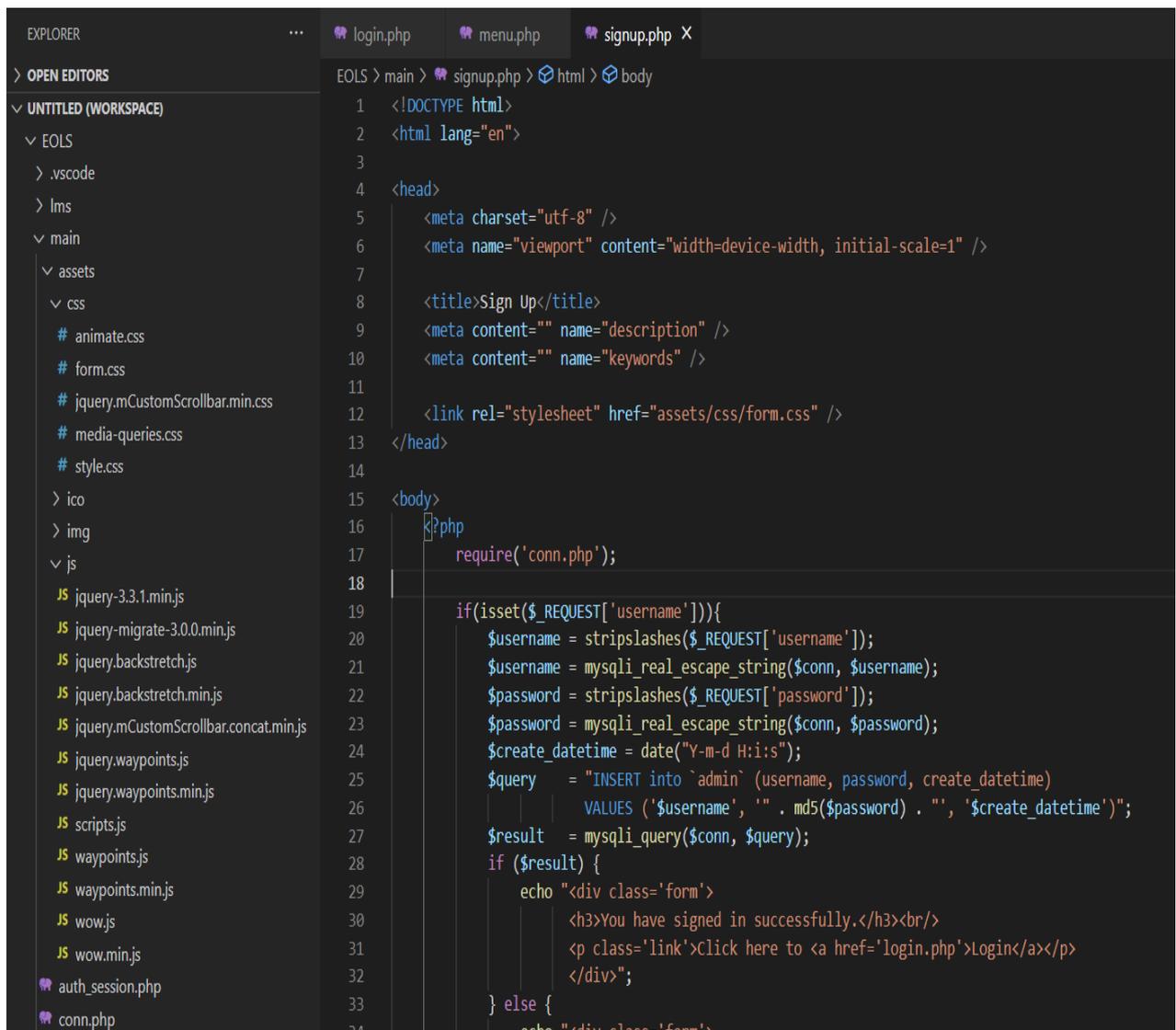
Software	Specification
Operating System	Windows 10 (System type: 64-bit)
Source Code Editor	Visual Studio Code
Web Server	XAMPP, PhpMyAdmin
Programming Language	HTML, CSS, Bootstrap, JavaScript, PHP, MySQL

Table 5.1.2.1 Software Setup

5.2 Technology and Tools Involved

1) Microsoft Visual Studio Code

Microsoft Visual Studio Code [12] is a code editor software application develops for the users with using source code editor to support for their tasks. The application is free for installation, convenient and enables the users to apply code optimizing to implement and code debugging, testing for code error through web cloud applications. It is also available for Windows, MacOS and Linux. The application can be support for major programming language such as C++, C#, Python, HTML, CSS, PHP, and others more extensions that can be found in VS Code marketplace. The feature of the language consists in Visual Studio Code extensions has syntax highlighting and bracket matching, smart completions, linting and corrections, code navigation debugging and refactoring including the application version control.



```

EXPLORER
  ... login.php menu.php signup.php X
  > OPEN EDITORS
  > UNTITLED (WORKSPACE)
  > EOLS
  > .vscode
  > lms
  > main
  > assets
  > css
  # animate.css
  # form.css
  # jquery.mCustomScrollbar.min.css
  # media-queries.css
  # style.css
  > ico
  > img
  > js
  JS jquery-3.3.1.min.js
  JS jquery-migrate-3.0.0.min.js
  JS jquery.backstretch.js
  JS jquery.backstretch.min.js
  JS jquery.mCustomScrollbar.concat.min.js
  JS jquery.waypoints.js
  JS jquery.waypoints.min.js
  JS scripts.js
  JS waypoints.js
  JS waypoints.min.js
  JS wow.js
  JS wow.min.js
  auth_session.php
  conn.php
  EOLS > main > signup.php > html > body
  1 <!DOCTYPE html>
  2 <html lang="en">
  3
  4 <head>
  5   <meta charset="utf-8" />
  6   <meta name="viewport" content="width=device-width, initial-scale=1" />
  7
  8   <title>Sign Up</title>
  9   <meta content="" name="description" />
  10  <meta content="" name="keywords" />
  11
  12  <link rel="stylesheet" href="assets/css/form.css" />
  13 </head>
  14
  15 <body>
  16   <?php
  17     require('conn.php');
  18
  19     if(isset($_REQUEST['username'])){
  20       $username = stripslashes($_REQUEST['username']);
  21       $username = mysqli_real_escape_string($conn, $username);
  22       $password = stripslashes($_REQUEST['password']);
  23       $password = mysqli_real_escape_string($conn, $password);
  24       $create_datetime = date("Y-m-d H:i:s");
  25       $query = "INSERT into `admin` (username, password, create_datetime)
  26         VALUES ('$username', '" . md5($password) . "', '$create_datetime')";
  27       $result = mysqli_query($conn, $query);
  28       if ($result) {
  29         echo "<div class='form'>
  30           <h3>You have signed in successfully.</h3><br/>
  31           <p class='link'>Click here to <a href='login.php'>Login</a></p>
  32           </div>";
  33       } else {
  34         echo "<div class='form'>

```

Figure 5.2.1 Visual Studio Code

The figure above shown the development tools for the system development of visual studio code which represents the code editor to build for user interface and debugging. From web browser using coding languages for displaying webpages with Internet HTML, CSS, JavaScript, and PHP include MySQL along with other languages related with the web building development can be applied in this text editor.

2) XAMPP

XAMPP [13] is also one of convenient, ease of use and free for installation as it is an open-source cross-platform web server. It is developed by Apache HTTP Server and support for Windows from installation while it also creates and test the programs through local web server. The application provides MySQL database to administrate along to connect the web server by using PHP language. From the XAMPP control panel, the operation of the connection to link the website and the database together is through localhost with creating the server's name from the code editor software to verify the Internet protocol address is match with the connection including setup the MySQL server and root password in terms of browsing into phpMyAdmin.

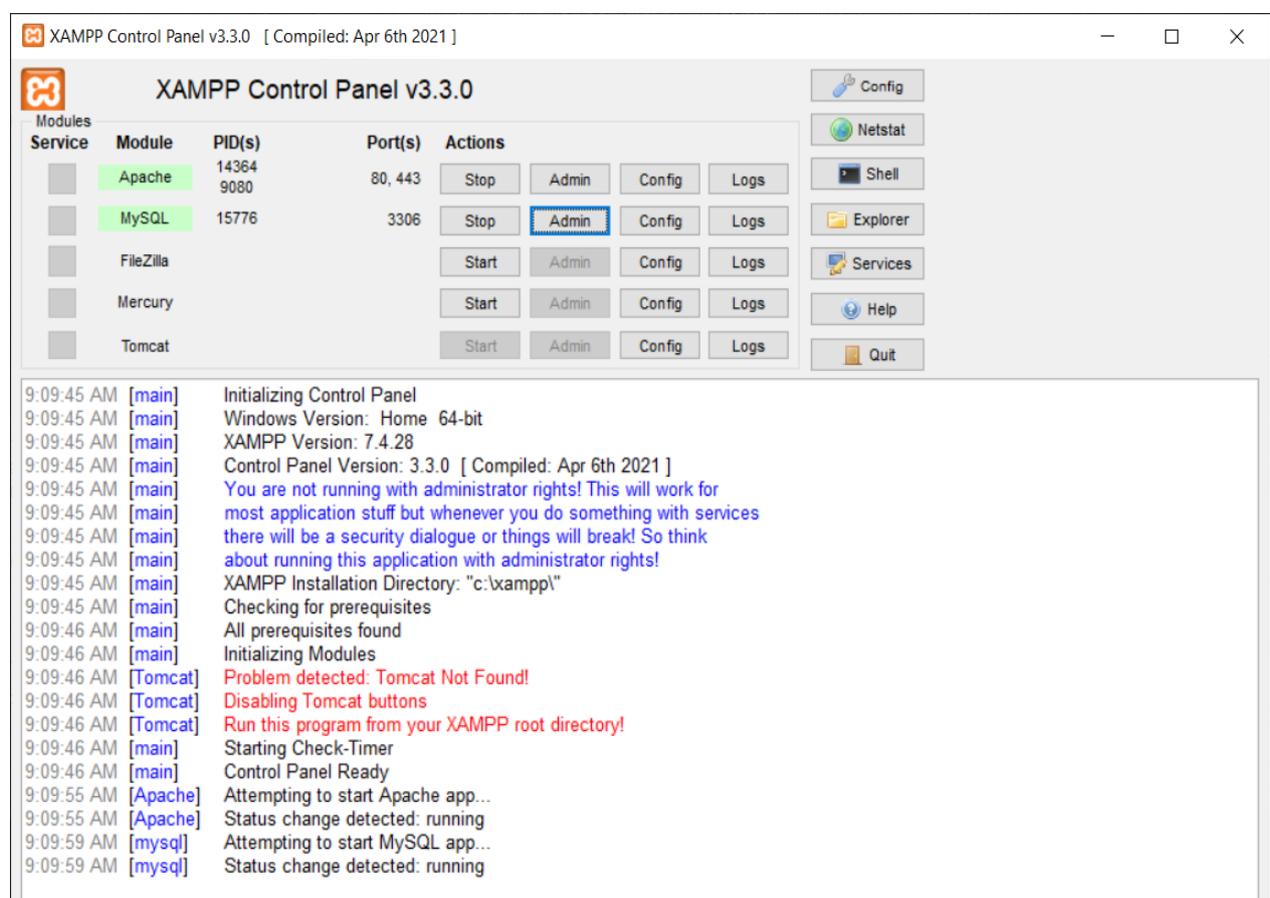


Figure 5.2.2 XAMPP

The figure above shown XAMPP is the control panel application for the module service to be chosen depends on which the users need to perform for their task to connect through the server for the web browser to display on their development and for actions require needs for the server purpose. The module involves with script to connect with the server are Apache and MySQL.

3) PhpMyAdmin

PhpMyAdmin [14] is known as a free software can be download from server and is also consider as an open-source administration tools to utilize for MySQL and MariaDB. This tool is commonly used for written in PHP script as documentation through using for web hosting services to direct browsing for the source.

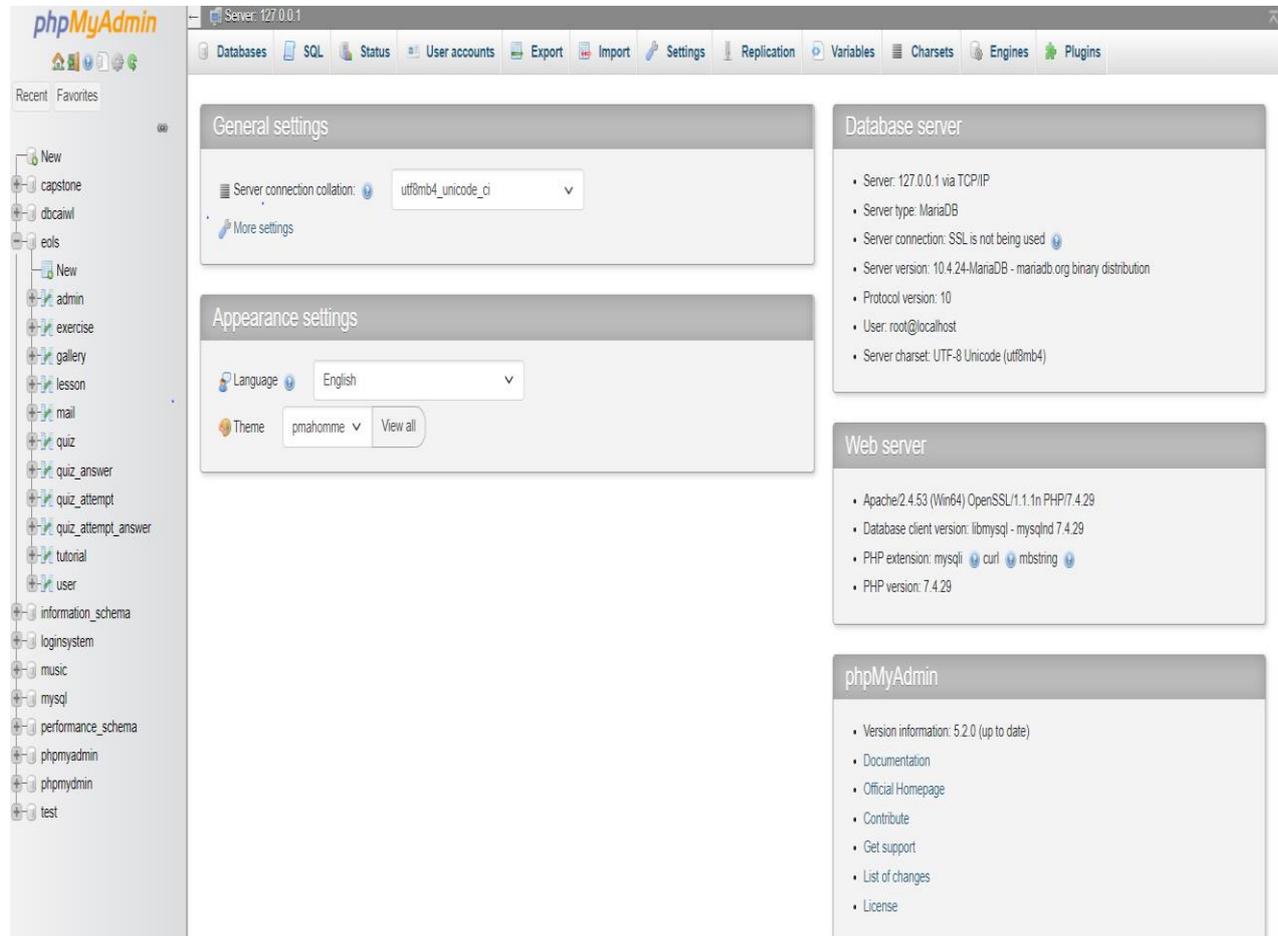


Figure 5.2.3 PhpMyAdmin

The above figure shown of phpMyAdmin is when the user clicks through the admin button from the XAMPP control panel which is the MySQL module section. The browser of this website tool is managing for the administration of MySQL to support the operations for SQL by creating databases while it also will link the database connection within the code editor by included the language script of server name and password to get the server from localhost.

5.3 Implementation Issues and Challenges

From this project, I have observed that the major implementation issues and challenges faced is the estimation of time, task planning, and manage each of the module functionality and content. This second project is about the whole process of assessment which is the final version with a complete system prototype and documentation, this is apart from progressing the continuous assessment after done for the first project during last semester. Meanwhile, I would need to update the progress I have done so far with my supervisor to ensure the project is under well progress by showing which have done and to be confirm whether it have need to make any changes.

During this current semester, it is necessary for me to consult my supervisor in terms of arranging for a meeting or discussion with the methods of joining online platform or email preferably. Some of the ideas is still need for research regarding on the project title of online language learning system develop for those learners who have lack of experiences from online resource, which I can suggest and observe it among myself through Google for the findings, so I am able to gain own ideas. Therefore, this project will need to conclude the progress estimation as there may still be an issue that will faced is this project have to fulfil the requirements of the project based on the project scope for the clients.

The whole system implementation estimate about certain weeks to be developed, the system have some of the functionality to ensure it is working and error detected. This is often the enormous challenge as it to develop an entire or perfect system compatible with the needs of requirement and having special features compare with other online learning platform to define the whole work process is completed individually. The system that have already implement is mainly have basic functionality and require more content such as the learning materials needed as prime objective of the project scope to manage as well as other module must complete accordingly from the project planning. Another major scope of the project is needed to conduct a survey testing of the system by collecting data from the participants to determine on the evaluation outcome.

5.4 System Prototype Implementation (Screenshot)

5.4.1 Index Page



Figure 5.4.1.1 Index Page

Figure 5.4.1.1 shows about the index page of Online English learning System by displaying the background and the title align at the center. At the bottom is to allow for choosing an account through clicking on the button either admin or user while the system will redirect forward to account page site before access to main page.

5.4.2 Account Registration

5.4.2.1 Admin Sign up

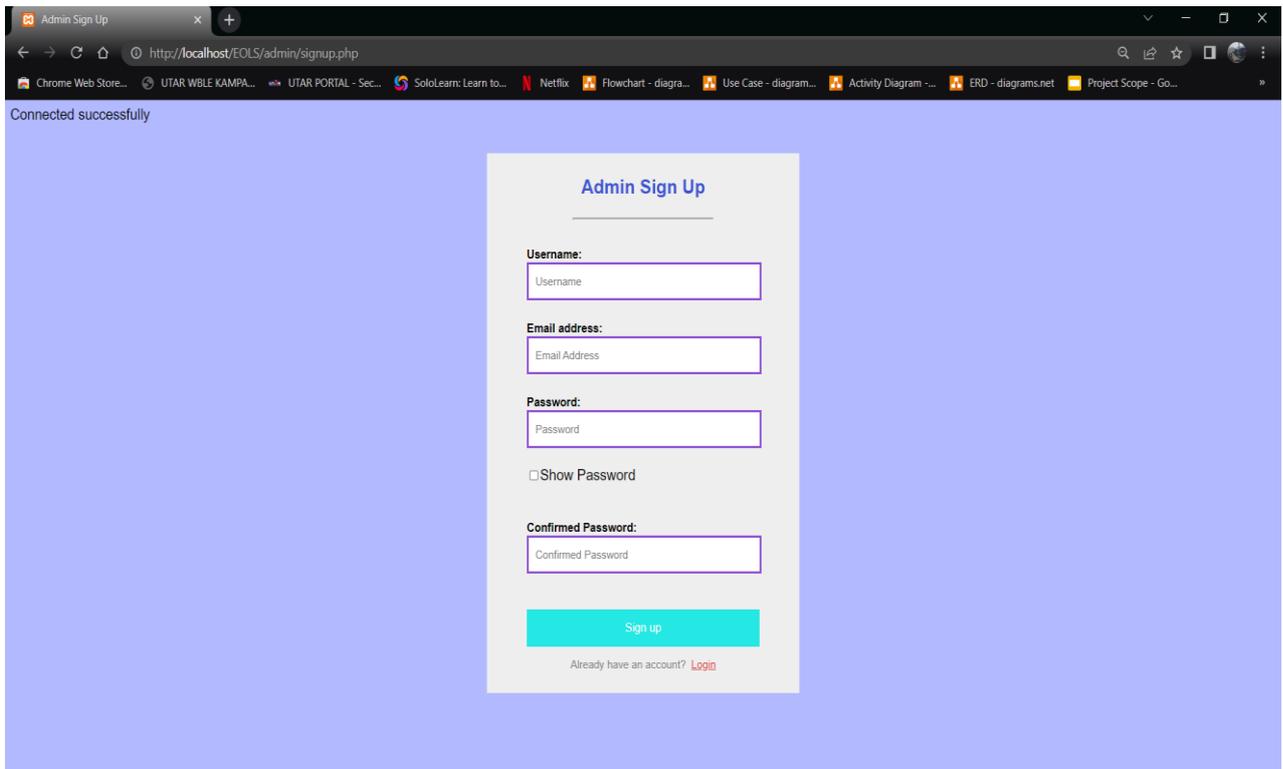


Figure 5.4.2.1 Admin Sign Up

5.4.2.2 User Sign up

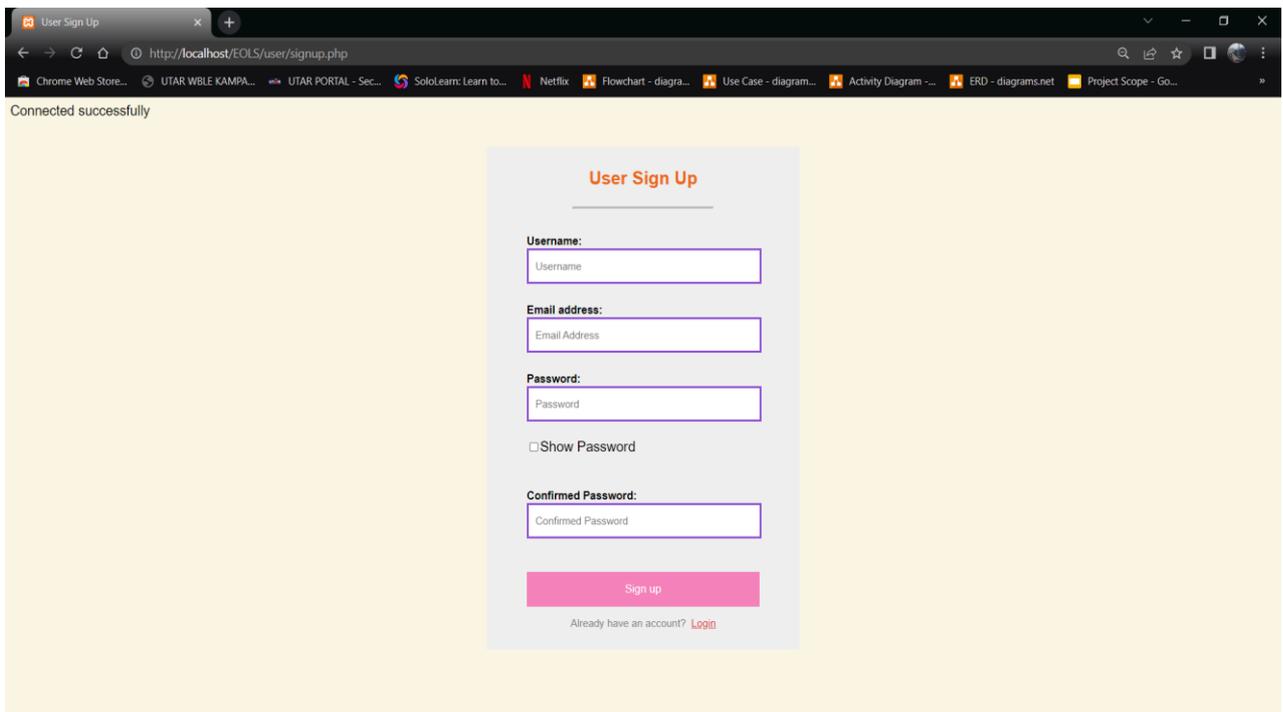


Figure 5.4.2.2 User Sign Up

Chapter 5 System Implementation

The figure of 5.4.2.1 and 5.4.2.2 represents the admin and user sign up page site which consists of username, email address, password and confirmed password input field require to fill from admin/user without leaving it blank. The checkbox at below the password input field is to allow to toggle the password visibility as they enter the value in the field, this lead them to secure by entering their password. The system have validation such as the required attribute from the input field has rule as if the data field is empty, it will restrict the register process from navigating to next page. Once every field is filled completely, the admin/user clicked on the sign up button while the data is insert into SQL database and prompt they have successfully registered. The bottom of the sign up button provide the login link for redirecting to login page site.

5.4.2.3 Account Validation

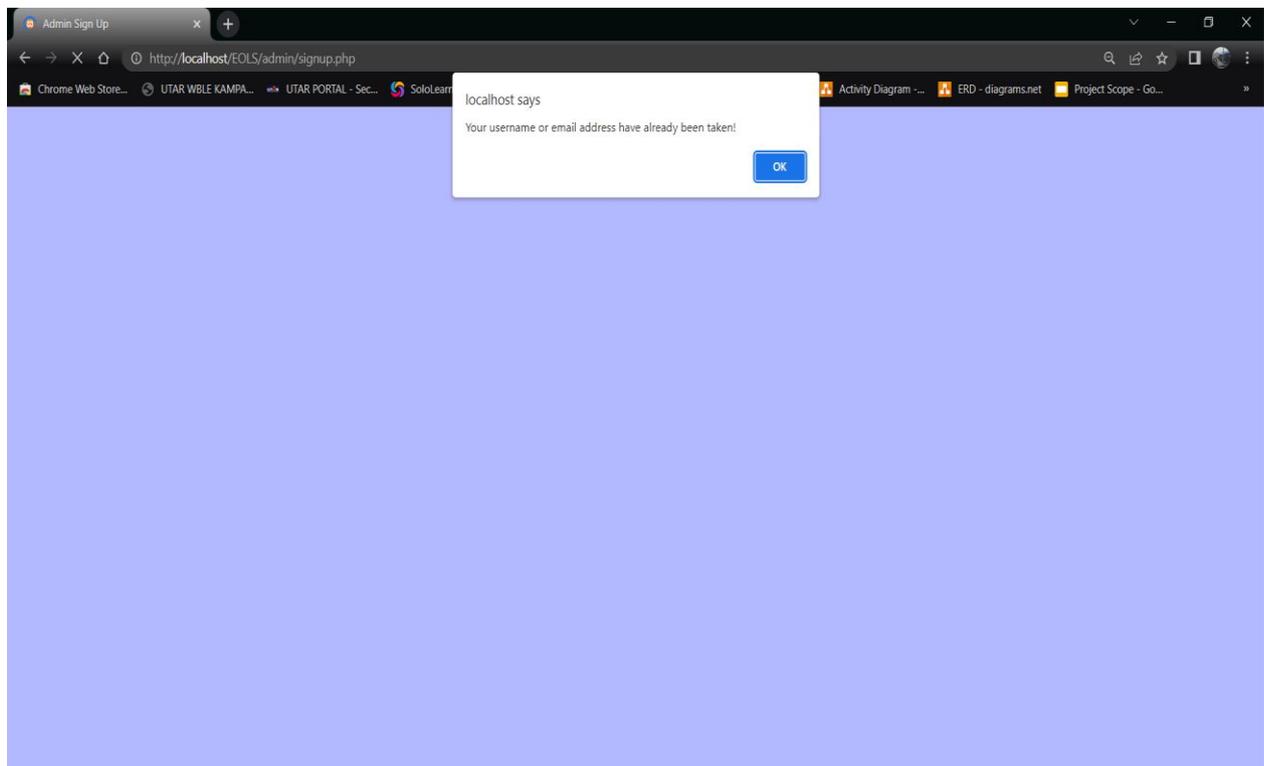


Figure 5.4.2.3 Account Validation

Figure 5.4.2.3 show the account validation when admin or user have enter their details such as username ad email address that is similar. The system will detect on whether the information filled has been existing and will reject their registration process. They will be needed to provide their new created information to register for their account.

5.4.2.4 Admin Login

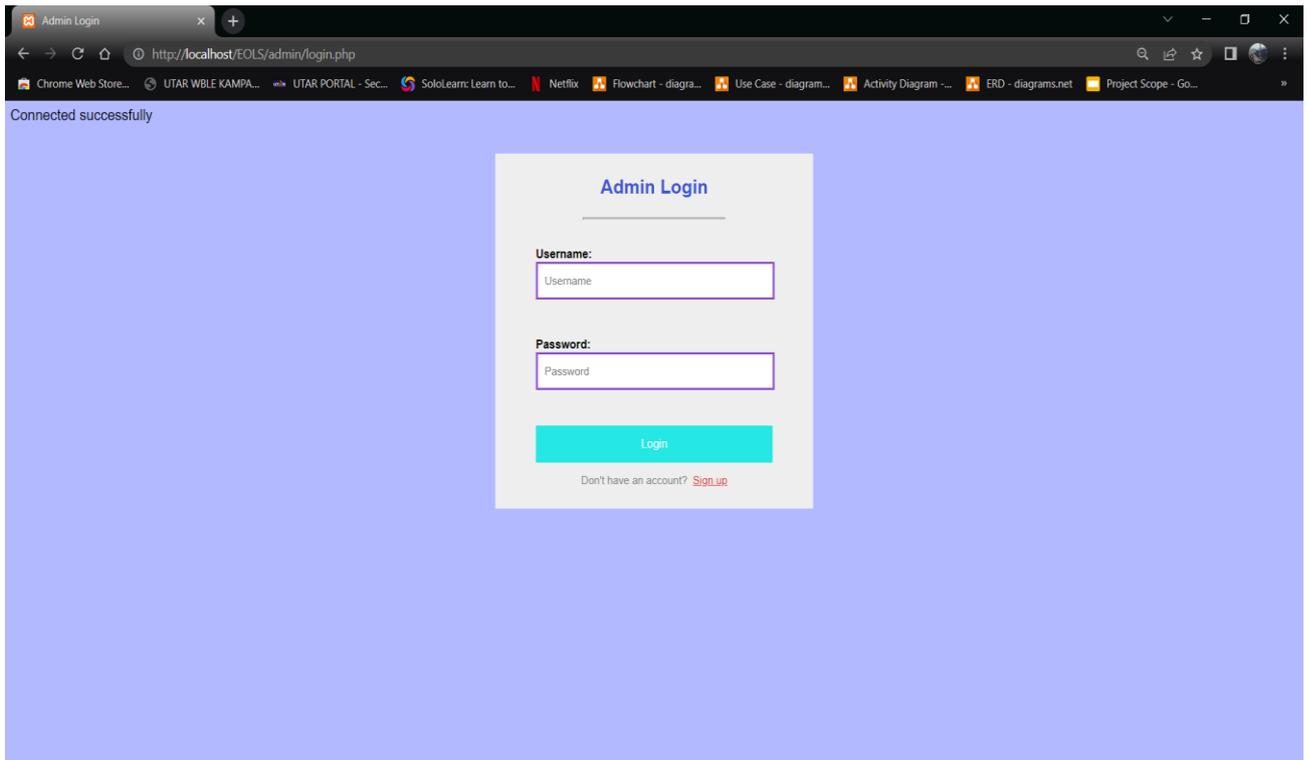


Figure 5.4.2.4 Admin Login

5.4.2.5 User Login

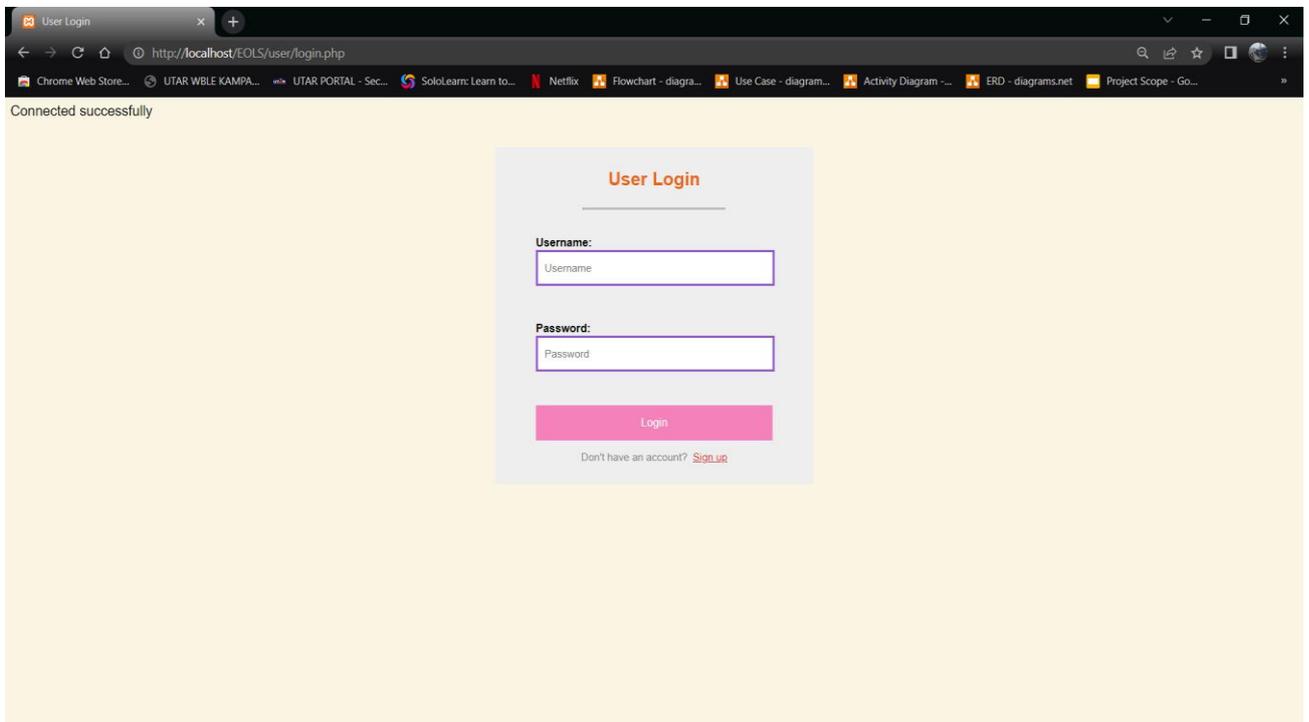


Figure 5.4.2.5 User Login

Chapter 5 System Implementation

The figure of 5.4.2.4 and 5.4.2.5 above shown is the admin and user login page site which is required to fill in their username and password. If both username and password field is empty as it will prompt an alert message which each of the input field is required to fill, as for password need at least length of 6 characters. Another is when admin/user fill in the right username and password through registering their account, the system will login successful while redirect to min page site else unable to login due to fill in incorrect username or password. Hence, there is a link for sign up below provide if the admin/user currently does not have their existing account.

5.4.3 Main Page

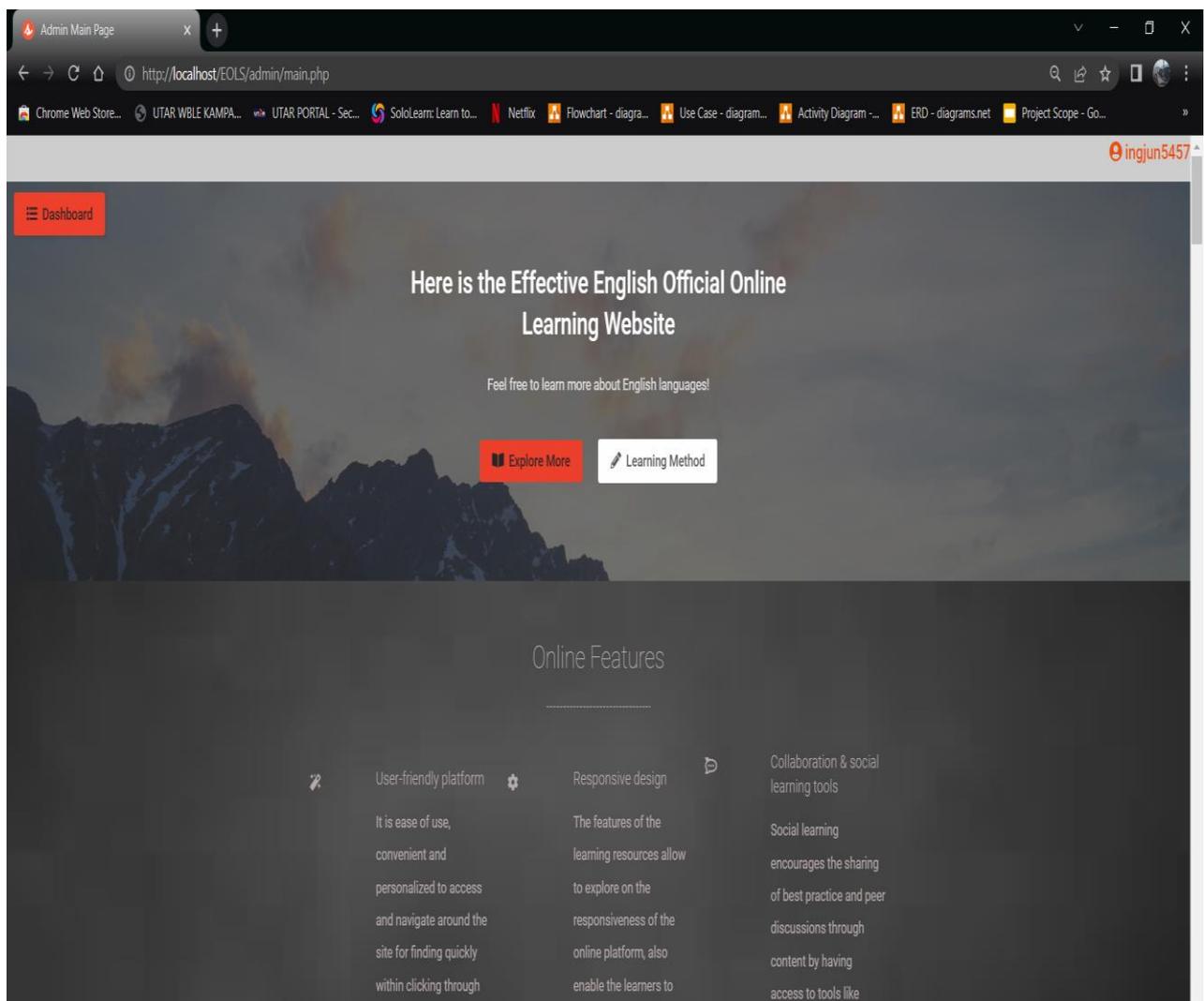


Figure 5.4.3.1 Main Page 1

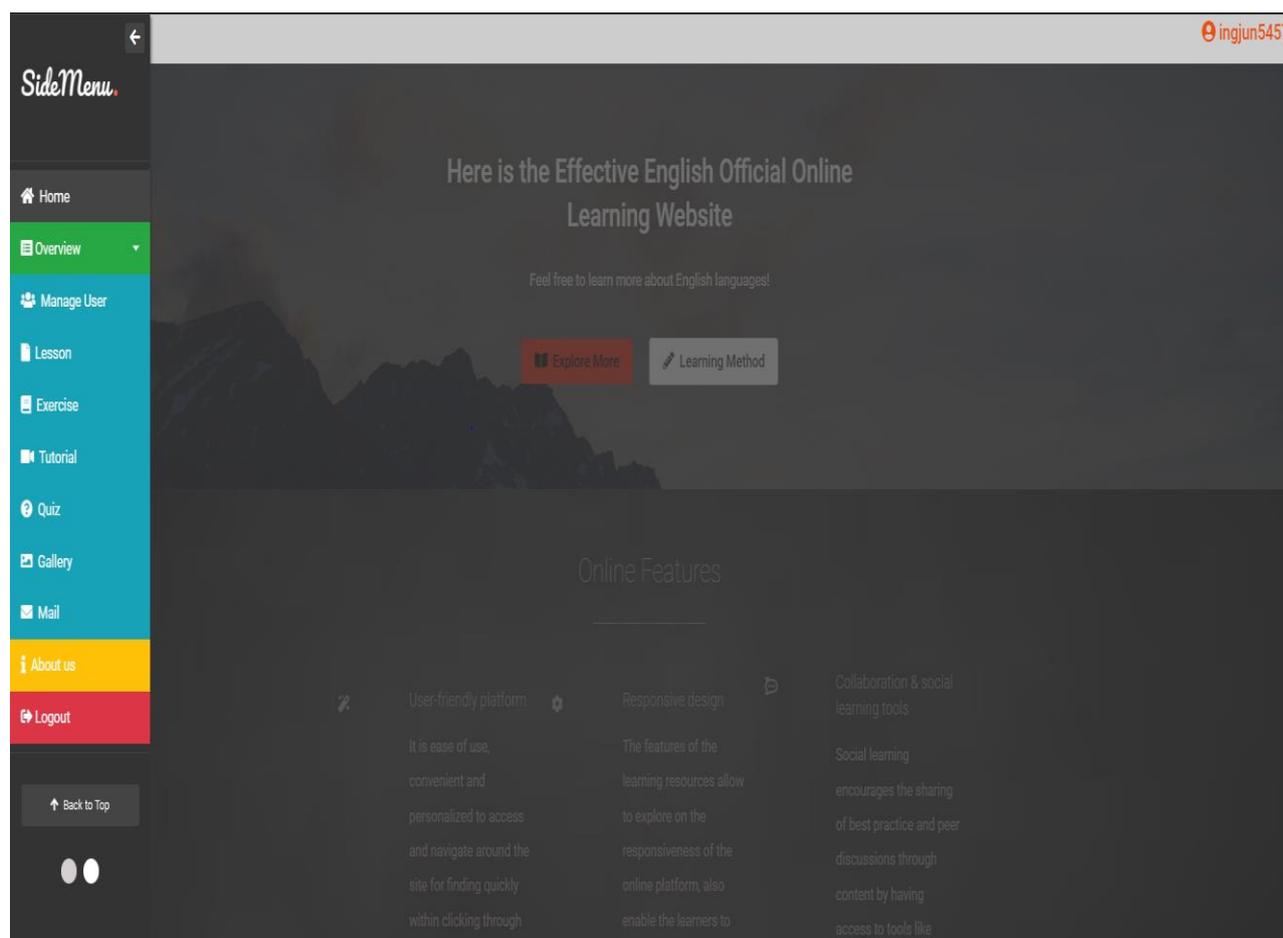


Figure 5.4.3.2 Main Page 2

Both figure 5.4.3.1 and figure 5.4.3.2 are the main page of the system after admin/user had login into their account. The top content of the main page will show the username with the profile icon at the top navigation which is the server had read the username and print on the background between the dashboard sidebar menu navigation, it can be allowed to click while can be able to view on the account information. Besides that, the admin and user account have account security such as privilege can be refer to permission for preventing other existing account to access others account. Once the account had login and access into the main page, other from admin and user account will be set permit from authorize access into the current person account. The sidebar navigation is when the dashboard button is clicked, and the design effect of the side menu will pop out to the navigation section which the top section will be home which will navigate the content to the top and there will be another button link which is “Back to Top” will be able to navigate to the top content. The section that is highlighted blue consider as background info are the main function of the content. The admin have extra navigation section which is Manage User section as others such as Lesson, Exercise, Tutorial,

Quiz, Gallery, and Mail are provided in both admin and user the main page. There will be Other sections to navigate to show for the description for the system which are the online features and learning method. For About Us section is to display the information regarding the online learning system information by showing the article of the content to make good impression of the system design features for visitors and identify the purpose. As for the Logout section is for the admin or user to log out of their account. The following figures will explain further about each of the main feature's functionality on how the function of the system works.

5.4.4 Account Profile

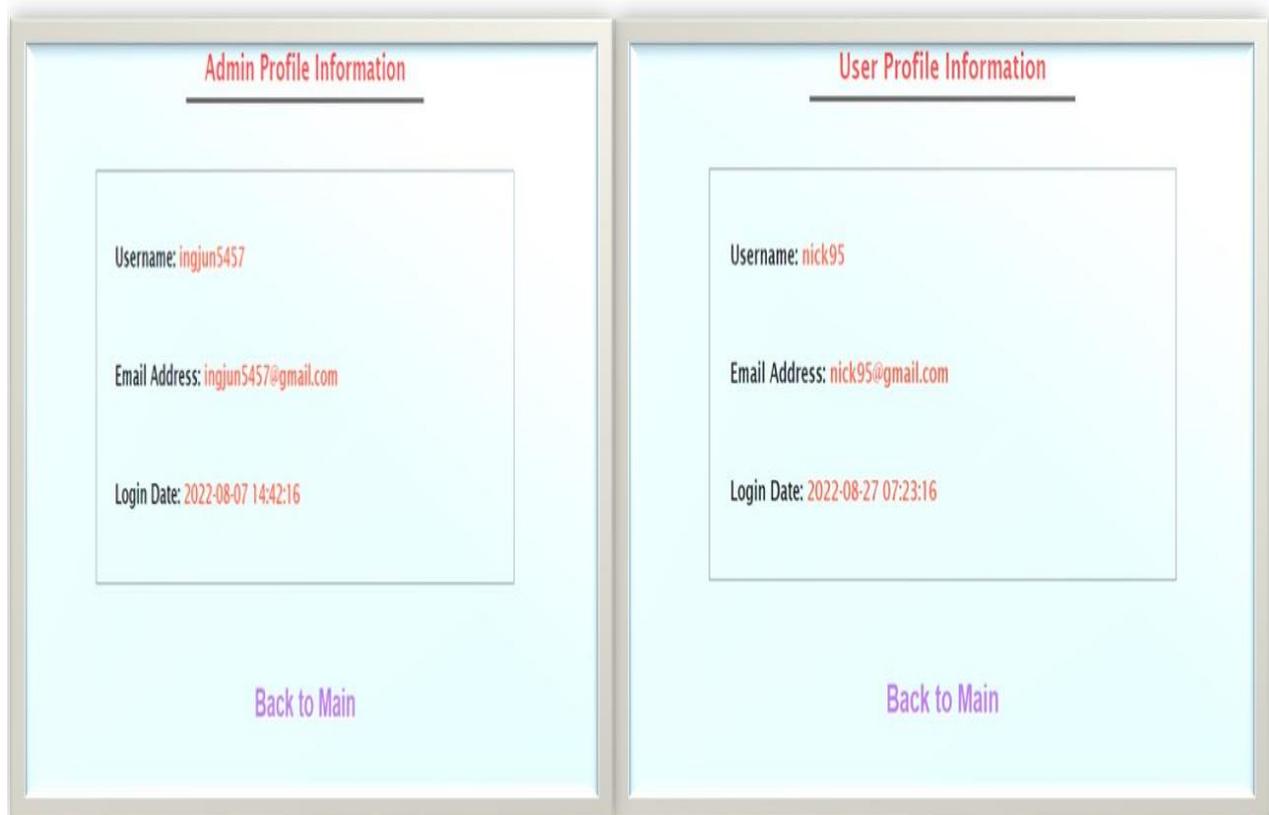
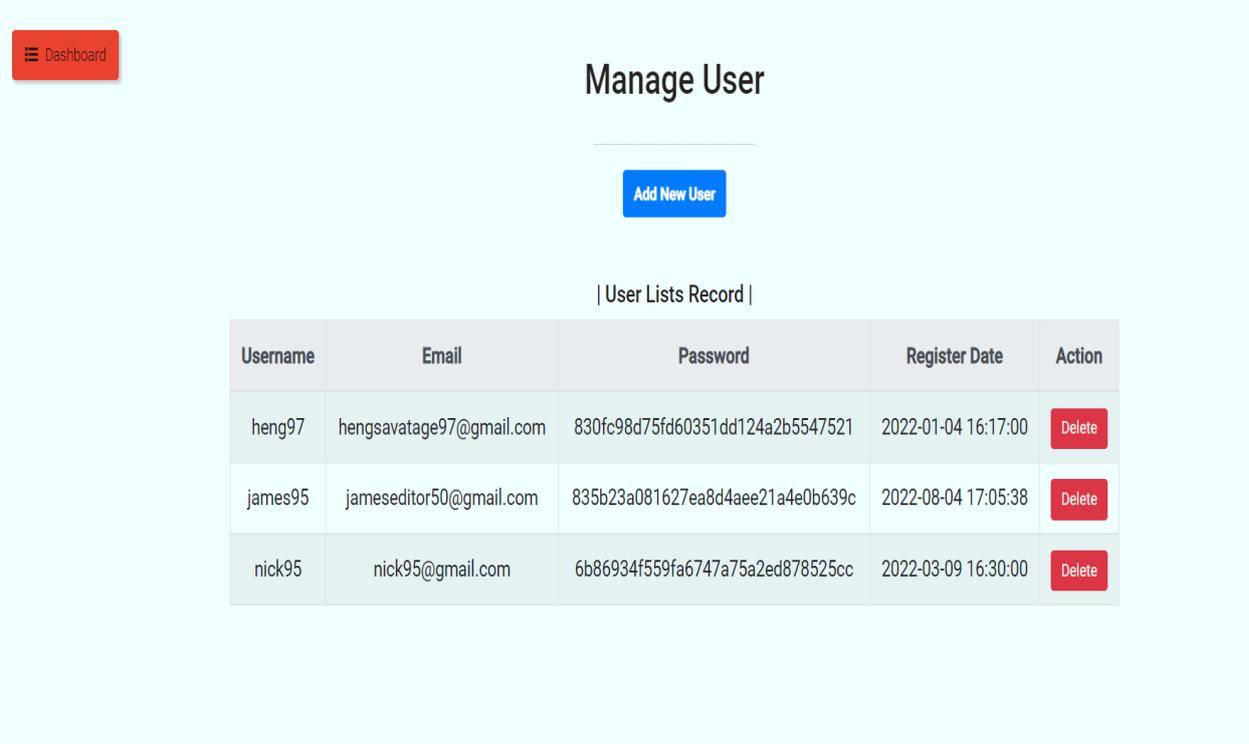


Figure 5.4.4.1 Account Profile

Figure 5.4.4 represents the information of admin and user account profile which is when the admin/user click on the profile from the main site. Once click from the profile, the system will navigate forward to redirect admin/user to the account profile site to allow them to view their profile information. The information provide are the username, email address, and date of login.

5.4.5 Manage User

5.4.5.1 Manage User (View/Delete User Lists)



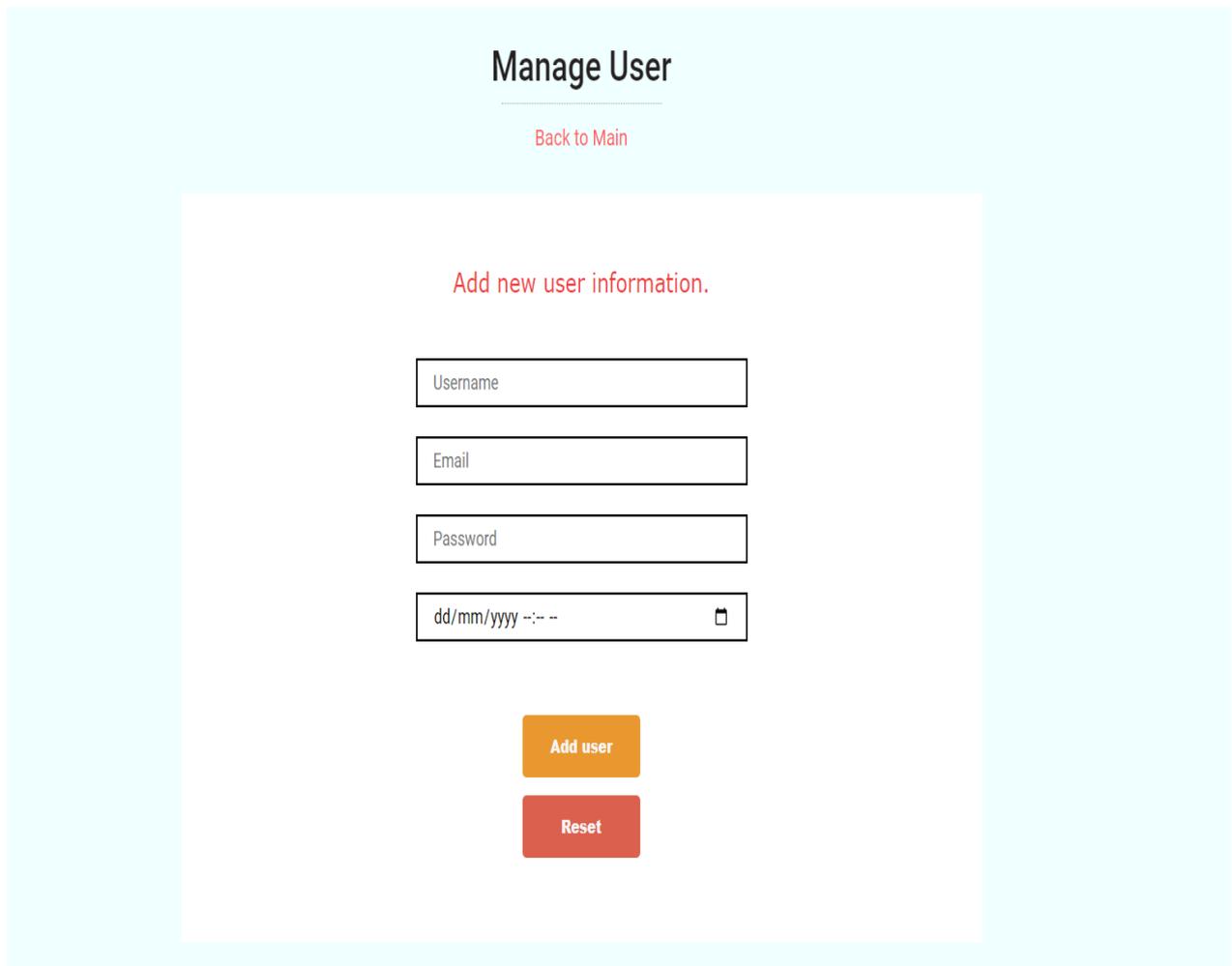
The screenshot displays a web interface for managing users. At the top left, there is a red 'Dashboard' button. The main heading is 'Manage User'. Below the heading is a blue 'Add New User' button. Underneath is a section labeled '| User Lists Record |' containing a table with the following data:

Username	Email	Password	Register Date	Action
heng97	hengsavatage97@gmail.com	830fc98d75fd60351dd124a2b5547521	2022-01-04 16:17:00	Delete
james95	jameseditor50@gmail.com	835b23a081627ea8d4aee21a4e0b639c	2022-08-04 17:05:38	Delete
nick95	nick95@gmail.com	6b86934f559fa6747a75a2ed878525cc	2022-03-09 16:30:00	Delete

Figure 5.4.5.1 Manage User (View/Delete User Lists)

Figure 5.4.5.1 shown the manage user section backend design interface which display the table of user list records for the admin to view. The admin can verify when the user have registered by identify from the register date. The password of each user is display as hashing data that had encrypted to prevent from visibility to view. Admin can have the action to remove each of the user lists at a single time by clicking on the delete button. The top of the user lists record table provide a button that can add new user lists with clicking it will navigate onto the next site for adding user list.

5.4.5.2 Manage User (Add User Lists)



The screenshot displays a web page titled "Manage User" with a "Back to Main" link. Below the title, there is a heading "Add new user information." followed by four input fields: "Username", "Email", "Password", and a date field with a calendar icon. At the bottom of the form are two buttons: "Add user" (orange) and "Reset" (red).

Figure 5.4.5.2 Manage User (Add User Lists)

Figure 5.4.5.2 is the following of manage user sections on the next site for adding user list by filling in username, email address, password and datetime. Each of the input field is the same concept are having required attribute within the input form to fill without leaving empty before submitting. The button of add user is for the admin to click for inserting the data which will be storing into database once had filled all details. The reset button is provided to reset all values of the elements to an initial value, this option is prevent from entering the invalid value before submitting.

5.4.6 Lesson

Topic	Title	File Type	File Name	Action
Topic 1	Articles	PDF	Articles.pdf	Delete Edit
Topic 2	Grammar	Docx	English Grammar.docx	Delete Edit
Topic 3	Prepositions	PDF	Prepositions.pdf	Delete Edit
Topic 4	Subject Verb Agreement	PDF	Subject Verb Agreement.pdf	Delete Edit
Topic 5	Tense	PDF	Learning Tenses.pdf	Delete Edit
Topic 6	Conjunctions	PDF	Conjunctions.pdf	Delete Edit
Topic 7	Vocabulary	Docx	Vocabulary.docx	Delete Edit
Topic 8	Phrases	PDF	Phrases & Clauses.pdf	Delete Edit

Figure 5.4.6 Lesson

Figure 5.4.6 shown the lesson records table contains each of the lesson content materials including information such as topic numbers, title, type of file (Docx and PDF), lesson file name and the action allow admin to click on the delete or edit button. At the top of the lesson records table provide a button link which is add new lesson to navigate to the next site for the admin to perform on adding lesson content and upload for file individually. The lesson content will need to consist of English structure that was provided in the file. Thus, the learning file material can be download directly by the user into their folder and attached from the file. From the lesson file allows the user to access their learning which inside the file consists of notes examples for them.

5.4.6.1 Lesson (Add/Upload Lesson Content)

The screenshot shows a web interface titled "Lesson" with a "Back to Main" link. Below the title is a form titled "Add new lesson." The form contains the following elements:

- A dropdown menu for selecting a topic, with options: "--Topic--", "Topic 1", "Topic 2", "Topic 3", "Topic 4", "Topic 5", and "Topic 6".
- A text input field for "Title".
- A dropdown menu for selecting a file type, with the option "--Choose file type--".
- A file upload area with a "Choose File" button and the text "No file chosen".
- An "Upload" button.
- A "Reset" button.

Figure 5.4.6.1 Lesson (Add/Upload Lesson Content)

Figure 5.4.6.1 is after the admin click on the button link will redirect to the next site which the form consist of input field. The first input field will be the topic with the multiple select option for choosing the topic, the following is to enter the title of lesson while next is select option to choose lesson file type which is either docxs or pdf format. The remaining is the input file for admin to choose lesson file content material. Once every detail had filled complete, admin will have to click on the upload input button as the system will read the data and store into the database before the data is print on the lesson records table that is enable for the user to retrieve the file and download it.

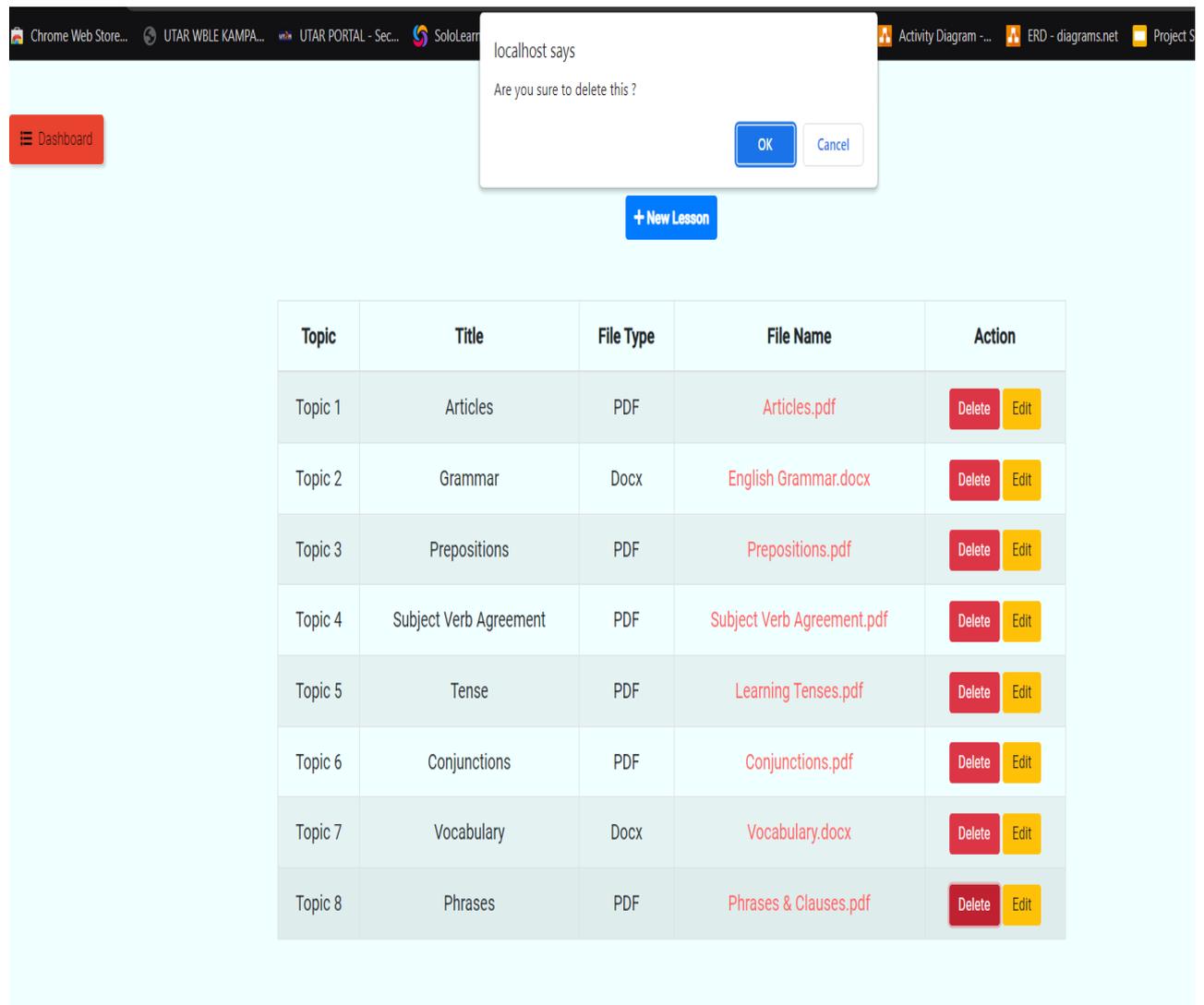
5.4.6.2 Lesson (Form Input Validation)

The screenshot shows a web form titled "Lesson" with a "Back to Main" link. The main heading is "Add new lesson." The form contains the following elements:

- A dropdown menu for "Topic" with options: "--Topic--", "Topic 1", "Topic 2", "Topic 3", "Topic 4", "Topic 5", and "Topic 6". A red error message "*Topic required!" is displayed to the right.
- A text input field for "Title". A red error message "*Title required!" is displayed to the right.
- A dropdown menu for "Choose file type" with the option "--Choose file type--". A red error message "*Choose file type is required!" is displayed to the right.
- A file upload button labeled "Choose File" with the text "No file chosen". A red error message "*Choose a file is required!" is displayed to the right.
- Two buttons at the bottom: "Upload" (dark grey) and "Reset" (red).

Figure 5.4.6.2 Lesson (Form Input Validation)

Figure 5.4.6.2 show about the form input for adding new lesson content consist of form validation which process as security when show from PHP form script. It will provide a proper validation of data when the value is not filled in each input field of the form. The validation of the data at the server side will verify mainly on the value which whether has empty string or value.

5.4.6.3 Lesson (Delete Lesson Content)


The screenshot shows a web application interface. At the top, there is a navigation bar with a 'Dashboard' button on the left and a '+ New Lesson' button in the center. A confirmation dialog box is open in the center, displaying the text 'localhost says' and 'Are you sure to delete this?' with 'OK' and 'Cancel' buttons. Below the dialog is a table with the following data:

Topic	Title	File Type	File Name	Action
Topic 1	Articles	PDF	Articles.pdf	Delete Edit
Topic 2	Grammar	Docx	English Grammar.docx	Delete Edit
Topic 3	Prepositions	PDF	Prepositions.pdf	Delete Edit
Topic 4	Subject Verb Agreement	PDF	Subject Verb Agreement.pdf	Delete Edit
Topic 5	Tense	PDF	Learning Tenses.pdf	Delete Edit
Topic 6	Conjunctions	PDF	Conjunctions.pdf	Delete Edit
Topic 7	Vocabulary	Docx	Vocabulary.docx	Delete Edit
Topic 8	Phrases	PDF	Phrases & Clauses.pdf	Delete Edit

Figure 5.4.6.3 Lesson (Delete Lesson Content)

Figure 5.4.6.3 shows is when the admin click on the delete button while prompt for confirm to remove the lesson content which also from the SQL database will be include for remove. Each of the lesson content from the table record will be remove one at a time as it cannot be the whole data deleted since it had been inserted each individually.

5.4.6.4 Lesson (Update Lesson Content)

The screenshot shows a web interface for updating lesson content. At the top, the word "Lesson" is centered. Below it is a red "Back" link. The main content area is titled "Update lesson.". It features a dropdown menu with a scrollable list of topics: "Topic 1", "Topic 2", "Topic 3", "Topic 4", "Topic 5", "Topic 6", and "Topic 7". "Topic 7" is currently selected. Below the dropdown is a text input field with the value "Vocabulary". Underneath that is another dropdown menu with "Docx" selected. At the bottom of the form is an orange button labeled "Update Lesson".

Figure 5.4.6.4 Lesson (Update Lesson Content)

Figure 5.4.6.4 refers as the update lesson site when admin click on the edit button by navigating forth to this site for modifying the value to make changes the right one. Each of the data that had been inserted earlier known as old value will show in the input field as it retrieve each of the data id from the database to specific which need to be modify. As the value had been modified, the value that is store through the database will be update accordingly. Hence, once the admin had clicked on the update lesson input button the system will show the message of the value that had modify is updating successful while redirecting back to the main page site.

5.4.7 Exercise

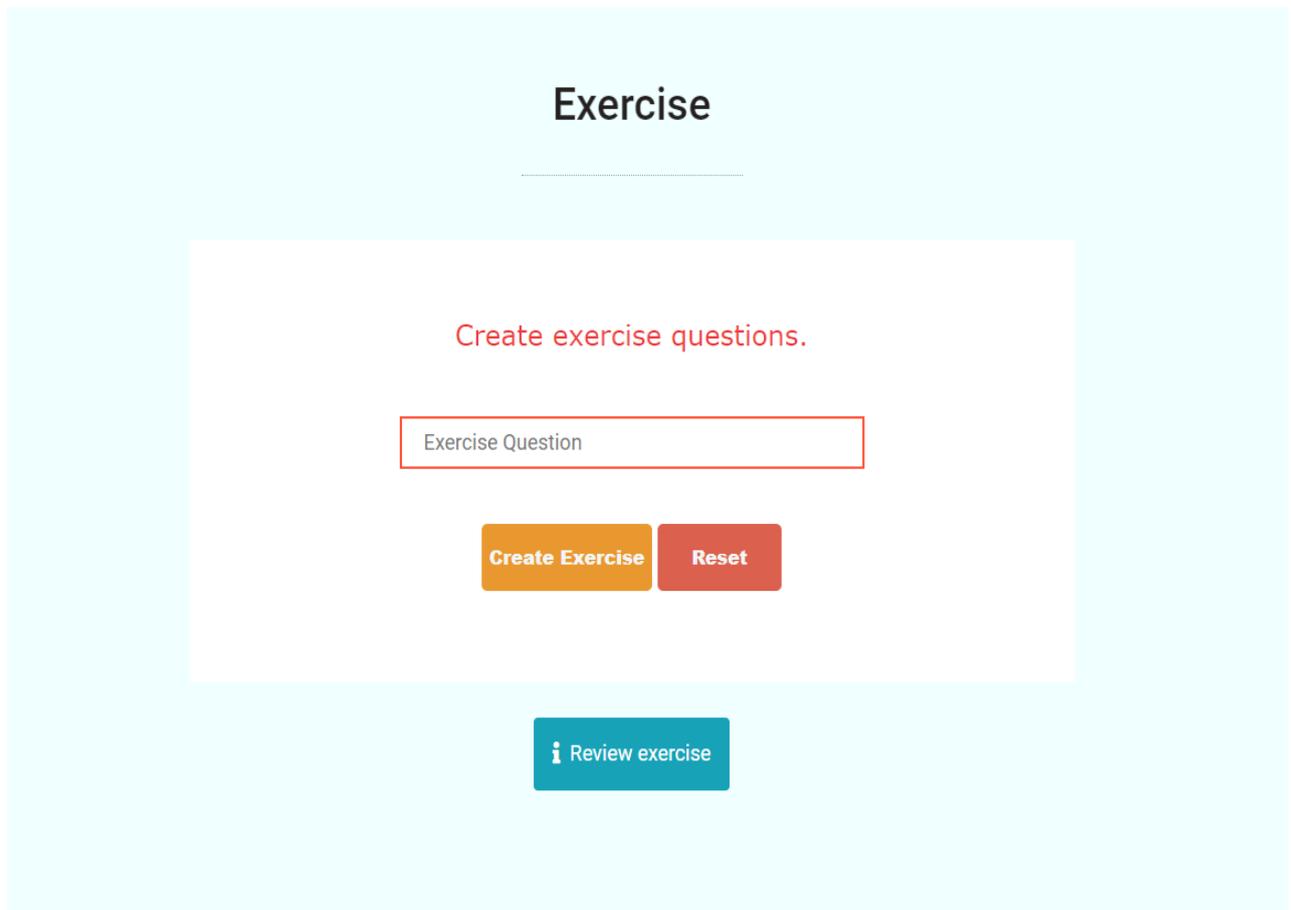


Figure 5.4.7 Exercise

Figure 5.4.7 above showing regarding about the exercise section where admin can create the questions by entering the value for the data to store into database include the answer will generate as true and false answer. The function for creating each exercise questions is clicking on the create exercise input button besides if enter the value wrongly can be reset. As the data is read and insert into database the system will show message that have create question and answer successful while redirect to next site to show questions and answers that have already print the data from the system. The review exercise button can be also redirect to the next site to show exercise question lists.

5.4.7.1 Exercise (Create Question Lists)

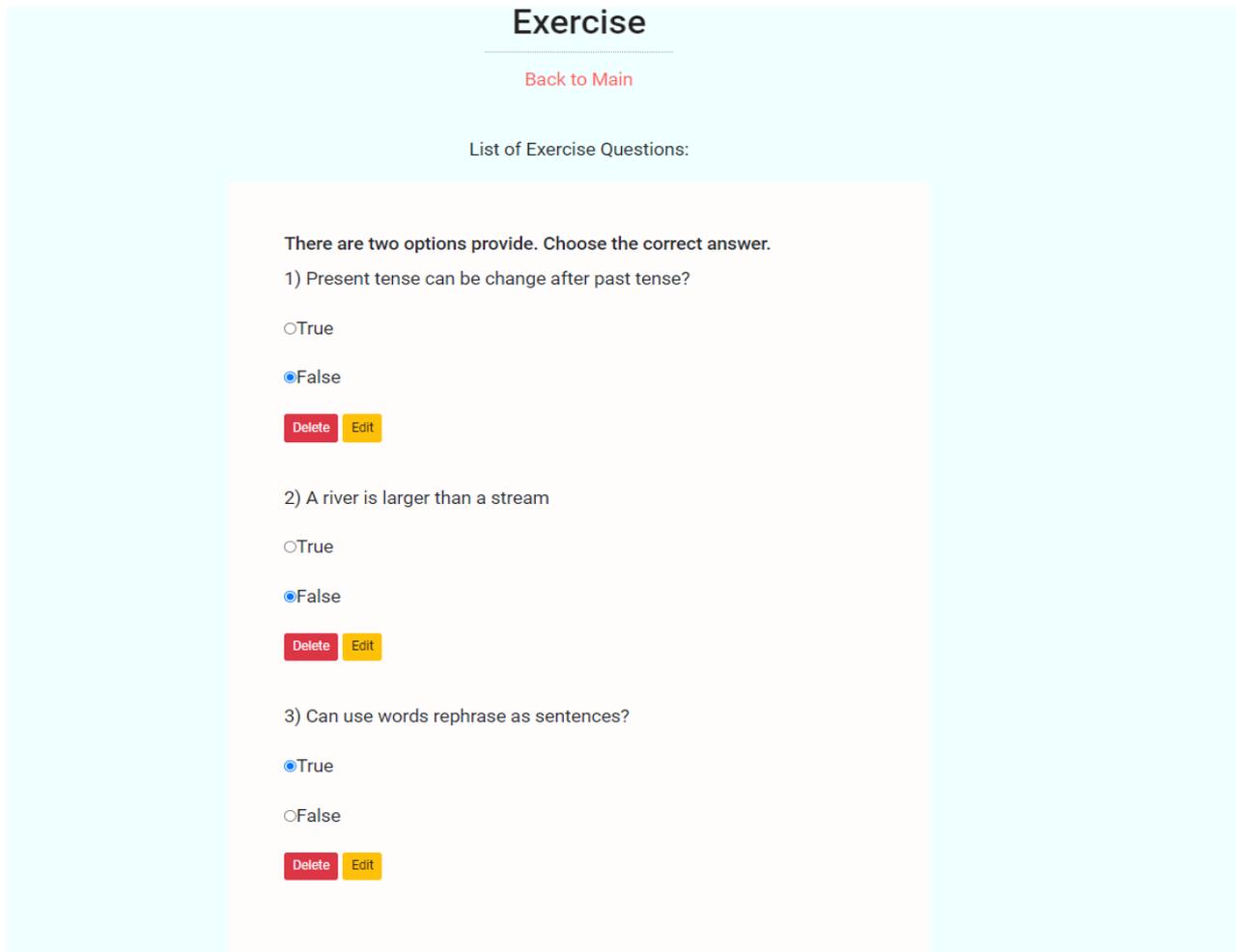


Figure 5.4.7.1 Exercise (Create Question Lists)

Figure 5.4.7.1 is the exercise that had created the questions and print on this site by displaying in paragraph format. Each of the questions have numberings with answers that is apply with radio button for check to allow choose either true or false. The radio buttons below have also print delete and edit button among each of the questions provide in this site. For the delete button enables the admin to choose any questions and by clicking, the question data will be remove permanently.

5.4.7.2 Exercise (Update Question Lists)

Exercise

[Back](#)

Update exercise questions and answer.

Present tense can be change after past tense?

True

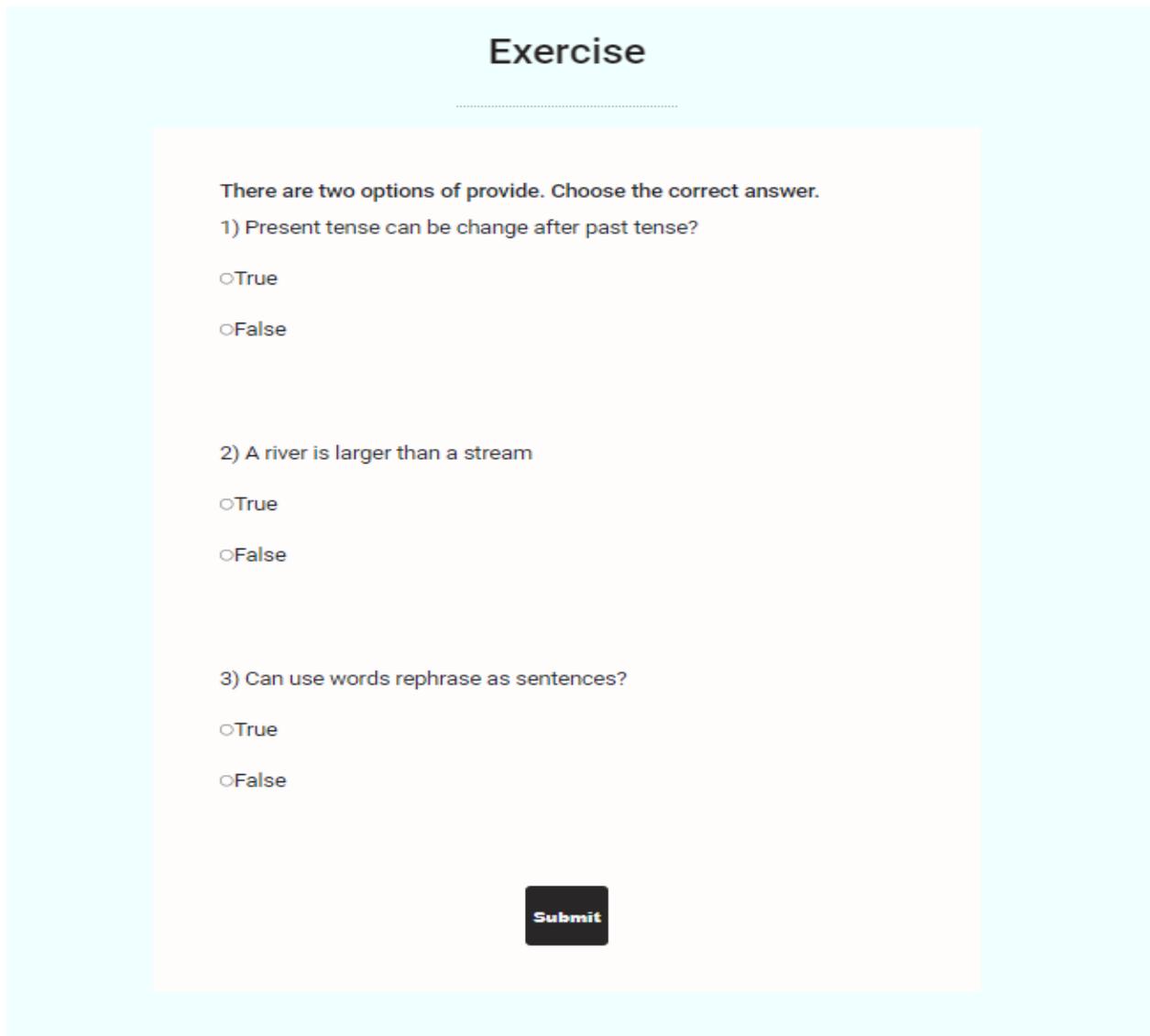
False

Update Exercise

Figure 5.4.7.2 Exercise (Update Question Lists)

Figure 5.4.7.2 shows the update exercise site when the admin had click on the edit button. Each of the value consist of the same concept of updating data by fetching the old value that have inserted earlier to be modify. The radio button of true and false answer can be modifying by checking either one as new change of the value while clicking on the update exercise button will prompt a message to notify whether the system had updated the data.

5.4.7.3 Exercise (Attempt Questions & Submit)



The screenshot shows a user interface for an exercise. At the top, the word "Exercise" is centered in a large, bold font. Below it, a horizontal dashed line separates the title from the content. The main content area is a light pink rectangle containing three questions. Each question is followed by two radio button options: "True" and "False". At the bottom center of the pink area is a black rectangular button with the word "Submit" in white text.

Exercise

There are two options of provide. Choose the correct answer.

1) Present tense can be change after past tense?

True

False

2) A river is larger than a stream

True

False

3) Can use words rephrase as sentences?

True

False

Submit

Figure 5.4.7.3 Exercise (Attempt Questions & Submit)

Figure 5.4.7.3 shows is the exercise questions for user to attempt each question that is published by admin to answer from user main page. Once every question had complete attempt, user can be able to click on the submit button. As if the question does not fulfill complete, the system will alert the user each of the question are required to attempt by answer completely before submitting.

5.4.8 Tutorial

The screenshot shows a web interface titled "Tutorial". At the top center is a blue button labeled "Insert video". Below this is a table with four columns: "Video Name", "Video Type", "Video File", and "Operation". The table contains three rows of data. Below the table is a teal button labeled "Review video".

Video Name	Video Type	Video File	Operation
Article Practice	MP4	Article Practice.mp4	Delete
Grammar	MP4	Grammar lesson.mp4	Delete
Speaking	MP4	Speaking skills.mp4	Delete

Figure 5.4.8 Tutorial

Figure 5.4.8 shown the tutorial video table record consist of video name, video type (MP3, MP4 and AVI format), video file and operation for the admin to perform the function of delete video. This is when after the admin had uploaded each of the video details to insert the data and store into the database while the data is print t the main page site of the tutorial section. At the top of the tutorial video table record have the button link to insert video redirect to next site while below is the button link info for the admin to navigate the next site for review the video content which is the source fetching from the video file format.

5.4.8.1 Tutorial (Insert Video Tutorial)

The screenshot shows a web interface for uploading video tutorials. At the top, there is a heading 'Tutorial' and a link 'Back to Main'. Below this, the main heading is 'Upload video tutorial.'. The form consists of three required fields, each marked with a red asterisk: a text input for 'Video Name', a dropdown menu for selecting a video type (currently showing '--Choose video type--'), and a file upload area (showing 'Choose File' and 'No file chosen'). At the bottom of the form are two buttons: a dark grey 'Upload' button and a red 'Reset' button.

Figure 5.4.8.1 Tutorial (Insert Video Tutorial)

Figure 5.4.8.1 shown about the site of upload video tutorial form when admin click on the insert video button link. The form is for allow the admin to fill in the details through input field, dropdown list of selecting video type and input file for choosing video file before uploading. It will also provide validation input concept as if the field is empty without filling any value for the server to read and store into database, as it will restrict from submitting process.

5.4.8.2 Tutorial (Video Tutorial Review)

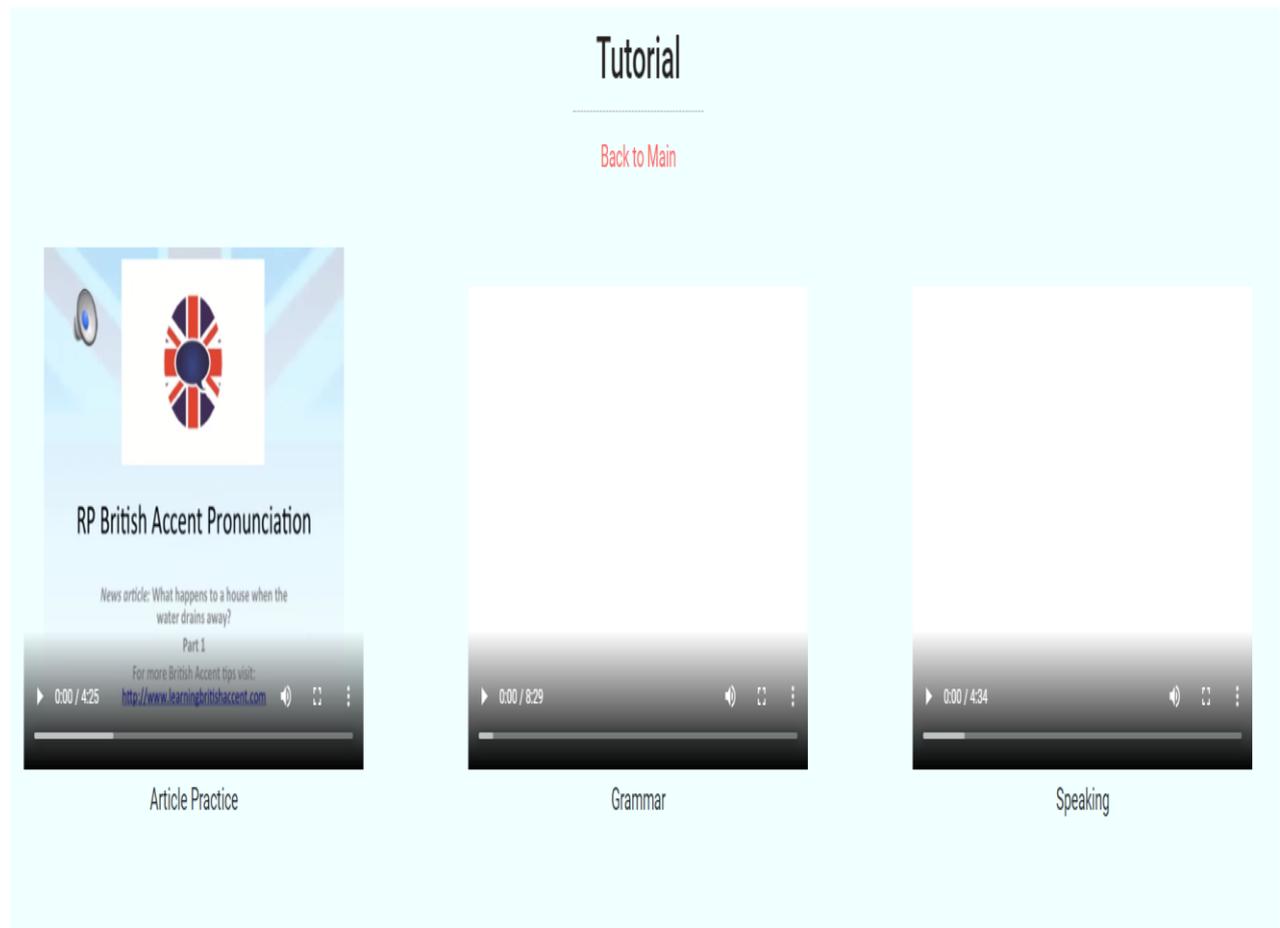


Figure 5.4.8.2 Tutorial (Video Tutorial Review)

The figure 5.4.8.2 following describe when the admin click on the review video button link will navigate forth to the site which each of the video source that had inserted and uploaded. This site is refer to admin for reviewing the uploaded video in source element for the user to view and play the video to watch the guidelines provide by the tutorial video content. Each of the video is display as grid view while in user main page is displaying as column view.

5.4.9 Quiz

Quiz

.....

Create quiz questions and answer.

Quiz Question

A

B

C

D

Correct Answer

Create Quiz Reset

Review quiz

Figure 5.4.9 Quiz

Figure 5.4.9 refer as the quiz section for admin to create quiz questions and answers (A, B, C, D) as value, this will be convert as radio button format of answers through input field include the correct answer while clicking the create quiz button for inserting the value storing into the database. The form input field also consist of required attribute to restrict if empty value submitting to the server. The button link below is also enable the admin for review on the quiz questions which had created before.

5.4.9.1 Quiz (Create Quiz Question Lists)

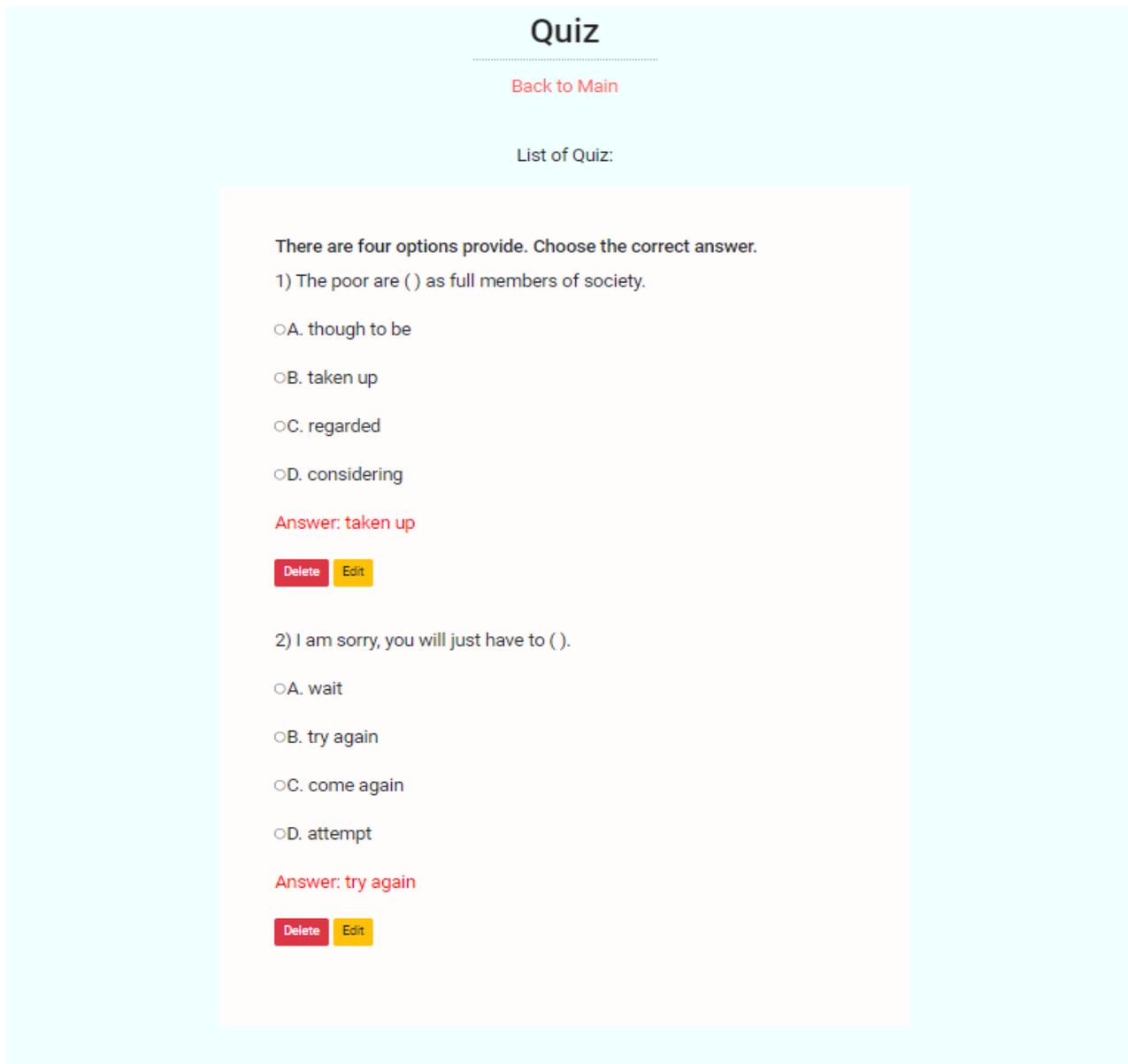


Figure 5.4.9.1 Quiz (Create Quiz Question Lists)

Figure 5.4.9.1 above provide is admin creates quiz question lists after the value enter into the input field had insert into database and fetch for printing into quiz questions format. Each of the questions insert consist of the numbering between the questions, answers as multiple choice questions (MCQ) and the correct answer is highlighted color text. The quiz questions has similar created questions format as exercise except for the answer which is in MCQ while each of the questions consist of delete button for admin to remove questions list while edit button to modify value.

5.4.9.2 Quiz (Update Quiz Question Lists)

Quiz

[Back](#)

Update quiz questions and answer.

The poor are () as full members of society.

though to be

taken up

regarded

considering

taken up

Update Quiz

Figure 5.4.9.2 Quiz (Update Quiz Question Lists)

Figure 5.4.9.2 shows the form for allowing the admin to update the question lists when clicking on the edit button. Most of the value that is inserted through input field before had retrieve for admin to modify by clicking on the update quiz button. The system will prompt the message to notify when the value is updated and will redirect back to the previous site where the quiz question lists is printed.

5.4.9.3 Quiz (Attempt Quiz Questions)

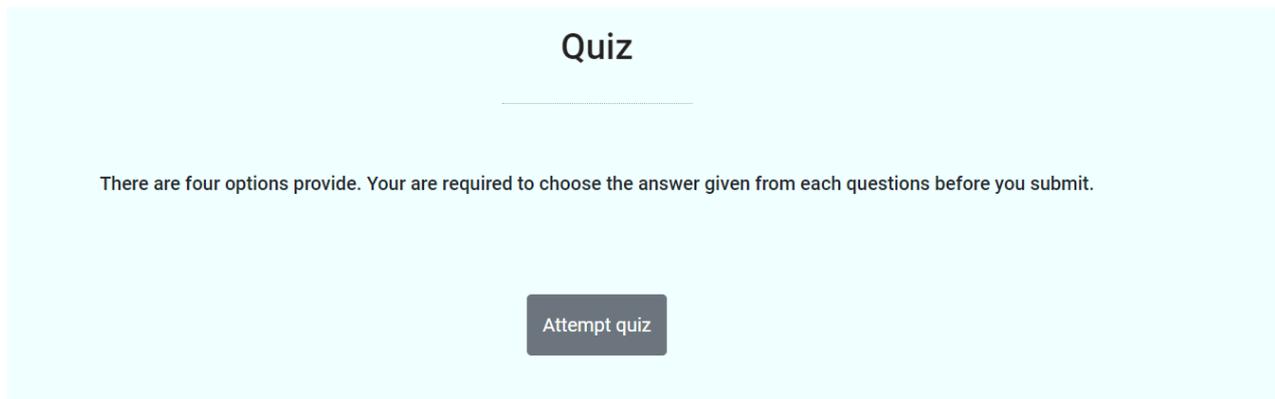


Figure 5.4.9.3 Quiz (Attempt Quiz Questions)

Figure 5.4.8.3 is the quiz from user main page site for the user to attempt quiz questions by clicking on the attempt quiz button link which the system will navigate to where the quiz questions for user to attempt.

5.4.9.4 Quiz (Submit Quiz Questions)

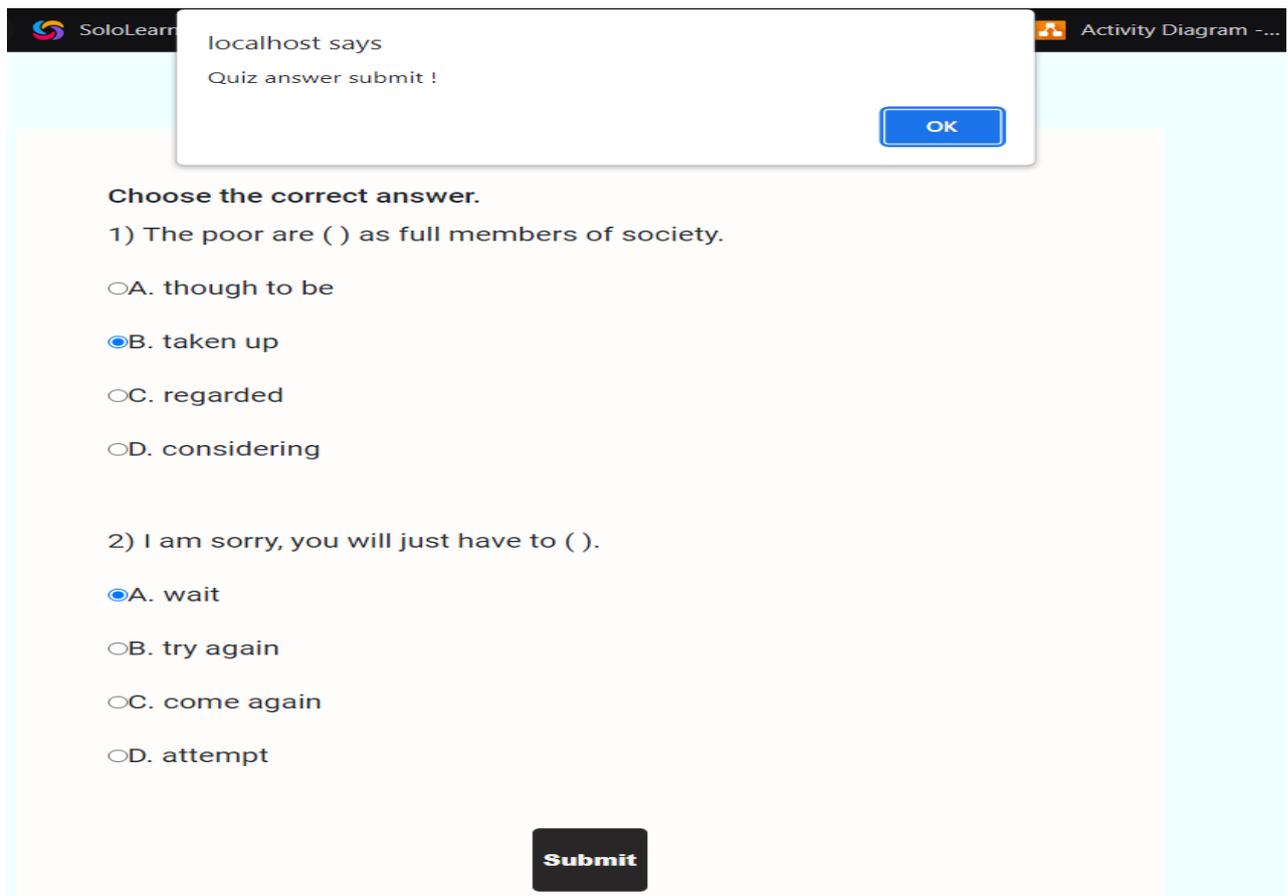


Figure 5.4.9.4 Quiz (Submit Quiz Questions)

Figure 5.4.9.4 review as the quiz questions attempt site allowing users to answer each of the questions given and submit. If the quiz questions had not been attempted by the user, the system will alert for every question provided are required to answer before submitting. Thus, after users had submitted, it will redirect link to the site for the user to review the correct answer.

5.4.9.5 Quiz (Review Correct Answer)

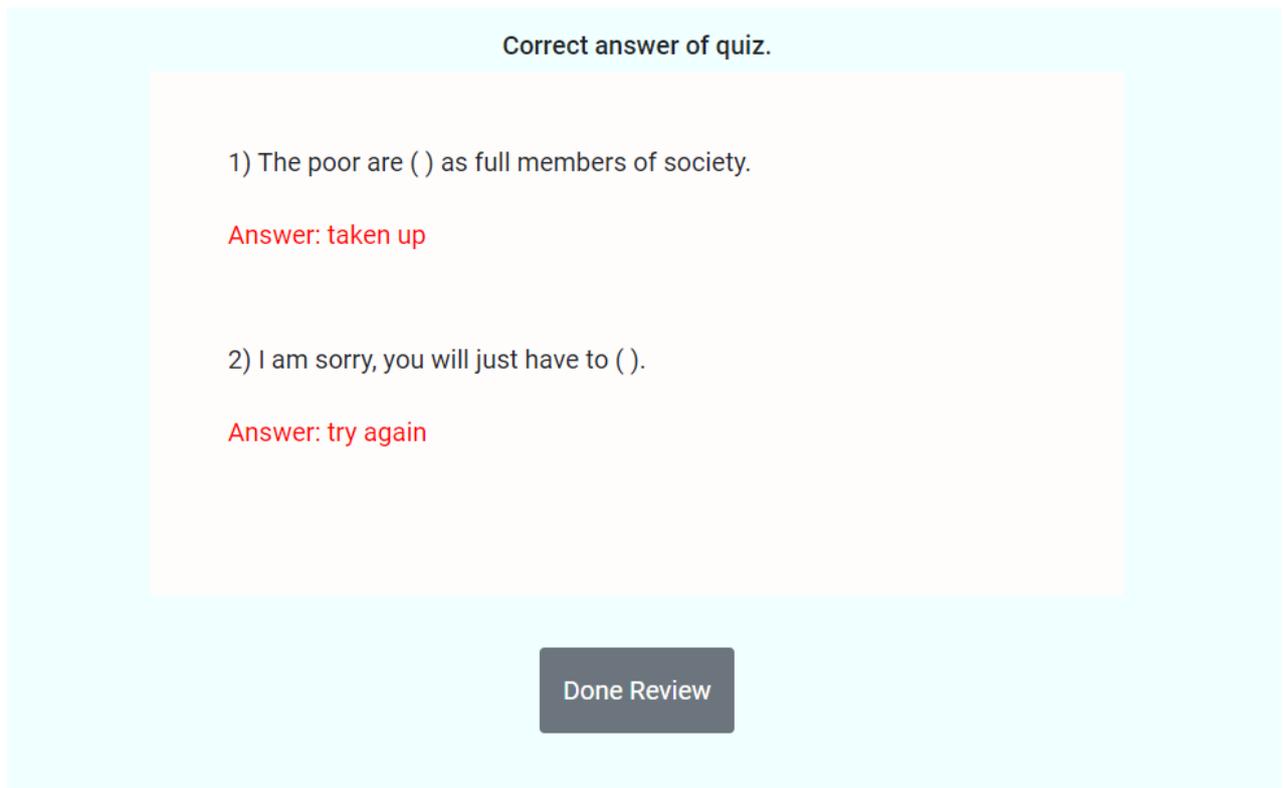


Figure 5.4.9.5 Quiz (Review Correct Answer)

Figure 5.4.9.5 is the site of showing the correct answer of the quiz to users. This is after they have attempted every question and submitted, the site will navigate next while revealing the correct answer for users to know their answer is correct or wrong.

5.4.10 Gallery

Gallery

[Back to Main](#)

Name of Image	Date/Time	Description	Image File	Operation
Writing skills	2021-07-18 12:30:00	Good writing skills allow you to communicate your message with clarity and ease to a far larger audience than through face-to-face or telephone conversations.	Writing skills.jpg	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
Listening practice	2021-10-20 18:00:00	Listening practice enhance you to understand the common vocabulary and expressions in short and clear dialogues.	Listening practice.jpg	<input type="button" value="Delete"/> <input type="button" value="Edit"/>
Lecturing and Speaking	2021-12-16 11:30:00	Gain motivation with effective speaking from the lecturing and learn on how to communicate.	Lecturing.jpg	<input type="button" value="Delete"/> <input type="button" value="Edit"/>

Upload image to view.

*

*

*

No file chosen *

Figure 5.4.10 Gallery

Figure 5.4.10 shown is the gallery section as the admin clicked on the insert image button link and it will forward to where the gallery table record have image details and files include the operation for delete and edit. Below of the image table record consist of form input filed for admin to perform for inserting image and upload. The form input field will require to fill in the name of image, date time, description, and file of image before upload and store into database while the image table record will print the new existing data of image that is fetch from the server.

5.4.10.1 Gallery (Update Image Info)

Update image information.



Gain motivation with effective speaking from the lecturing and learn on how to communicate.

Figure 5.4.10.1 Gallery (Update Image Info)

The figure 5.4.10.1 of the next following image site is for the admin update the image information. The form for updating had include the image on the top, value of image name, datetime and the description. The same goes for the updating data function rules which was the value that was inserted as data only can be modify as the existing records fetch from the table. The message will be notify when is updating successful by clicking on the update image input button else cannot be update if the value has not retrieve or read for modify.

5.4.10.2 Gallery (View Gallery Info)

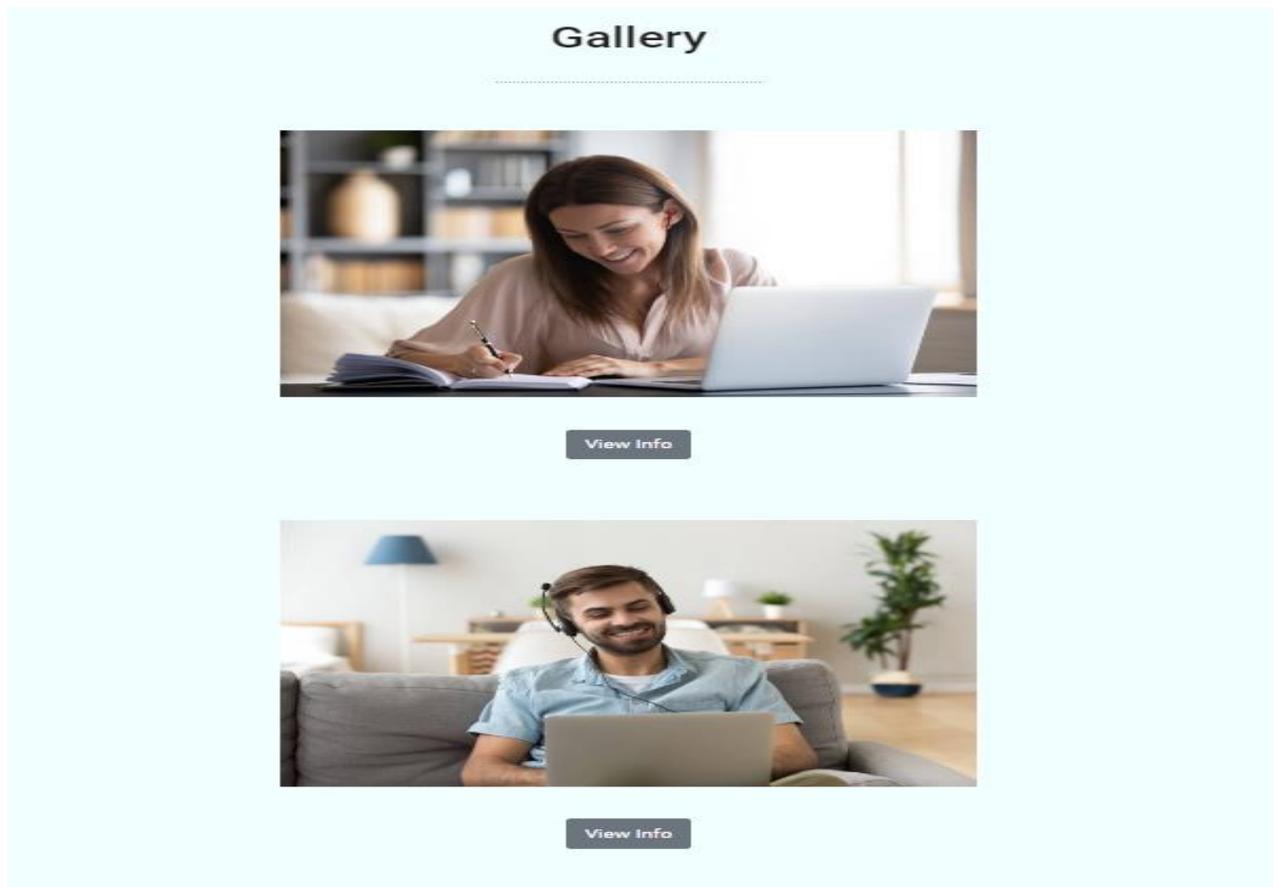


Figure 5.4.10.2-1 Gallery (View Gallery Info)

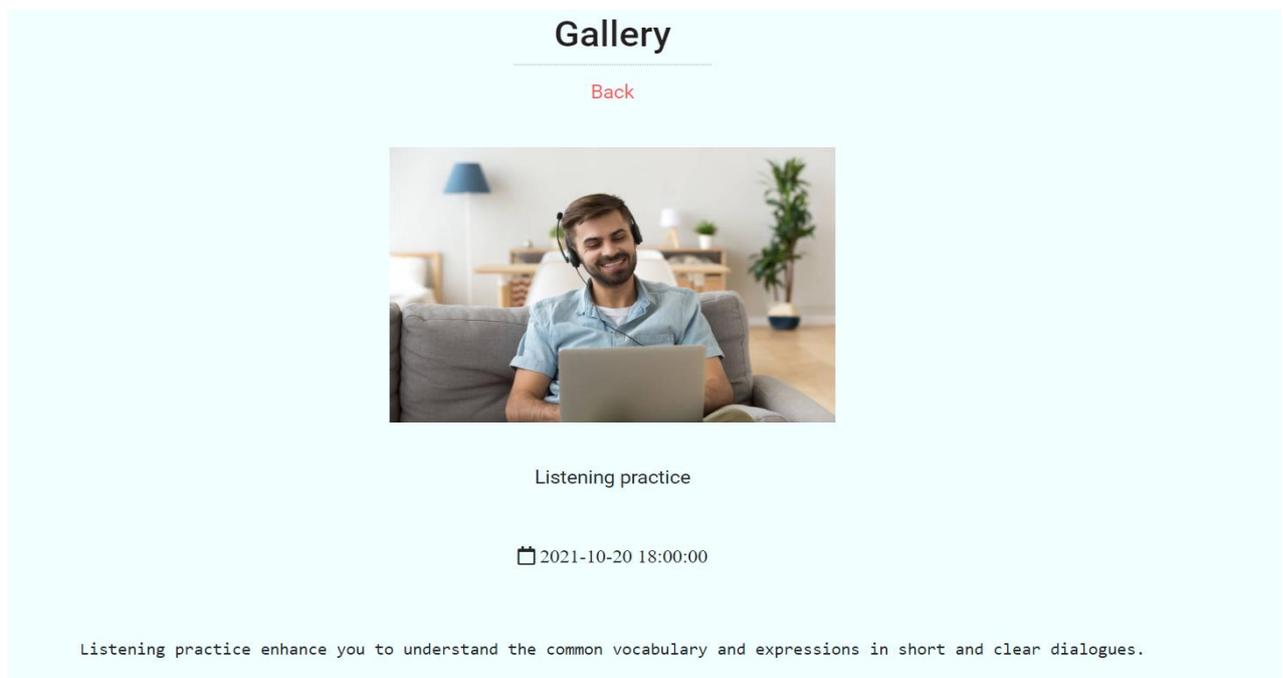
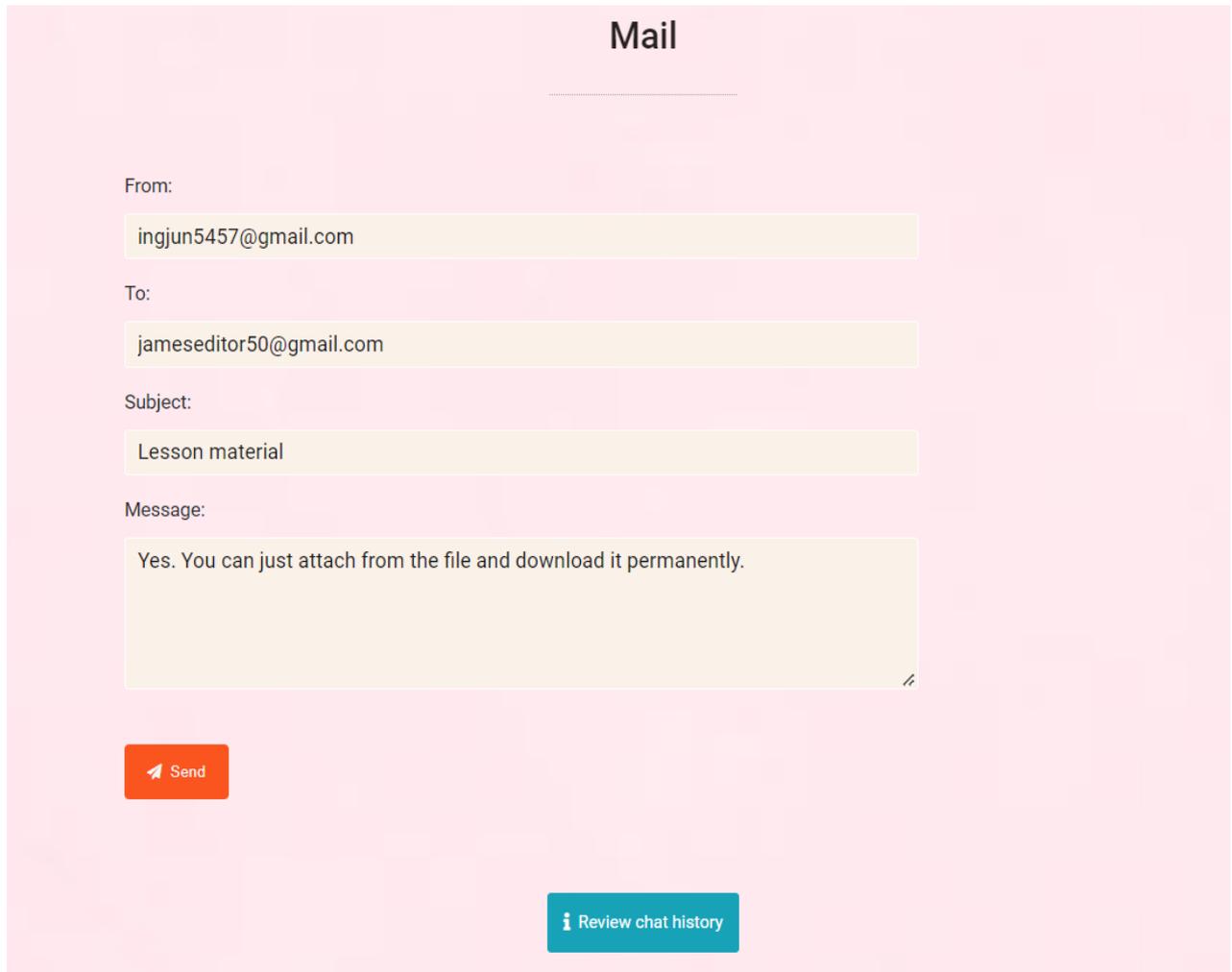


Figure 5.4.10.2-2 Gallery (View Gallery Info)

Both figure of 5.4.10.2 represents the gallery section from user main page is the users are enabled to view the information of the images by clicking on the button link which is provide under the photo to navigate to next site for viewing on the image details such as the image name, the published of image date and time and the description of image provide with meaningful content.

5.4.11 Mail



Mail

From:
ingjun5457@gmail.com

To:
jameseditor50@gmail.com

Subject:
Lesson material

Message:
Yes. You can just attach from the file and download it permanently.

[Send](#)

[Review chat history](#)

Figure 5.4.11 Mail

Figure 5.4.11 shows the mail section allows admin and user to send or receive message. The mail message is using from the online learning system platform as it send the message via Gmail SMTP using PHP Mailer server. The SMTP is connecting to the host of SMTP protocol while it also connect to the mailbox when sending. It is required the server, port, and account credentials as parameters for SMTP connection. The input field for sending mail message consists of email address (from address as sender and to address as receiver), subject and

message. Once have send the mail message, the system enable to alert that is send successful and will redirect the server to the mail inbox as well.

5.4.11.1 Mail (Mail Inbox of Recipient Send & Receive)

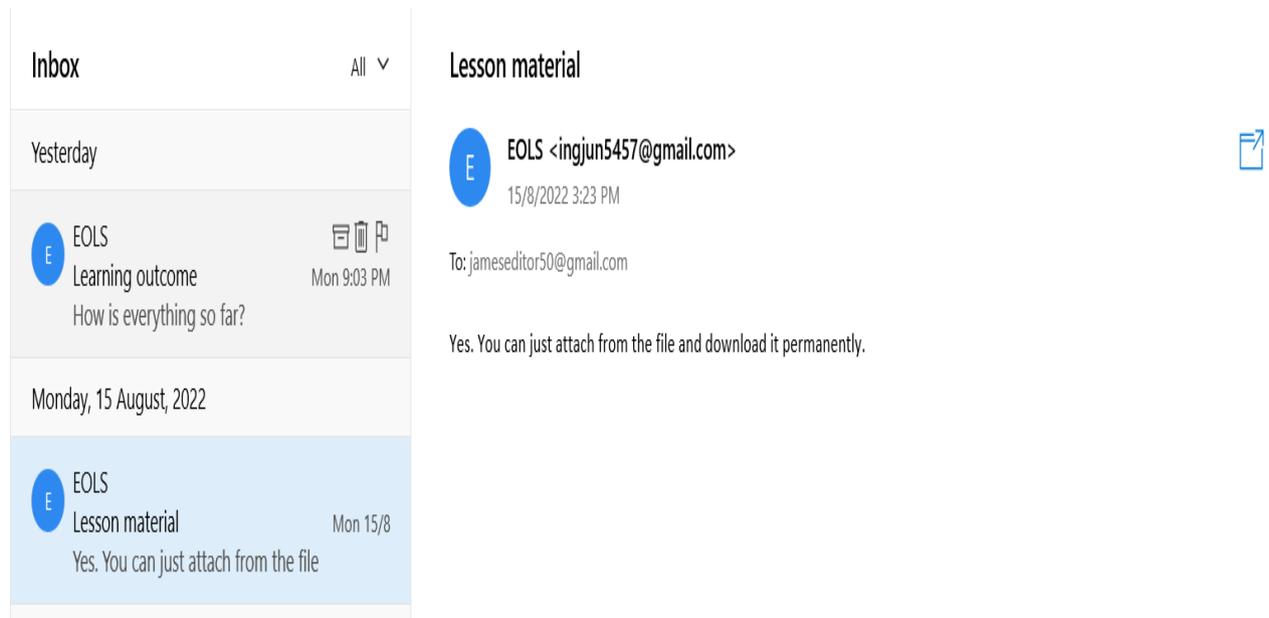
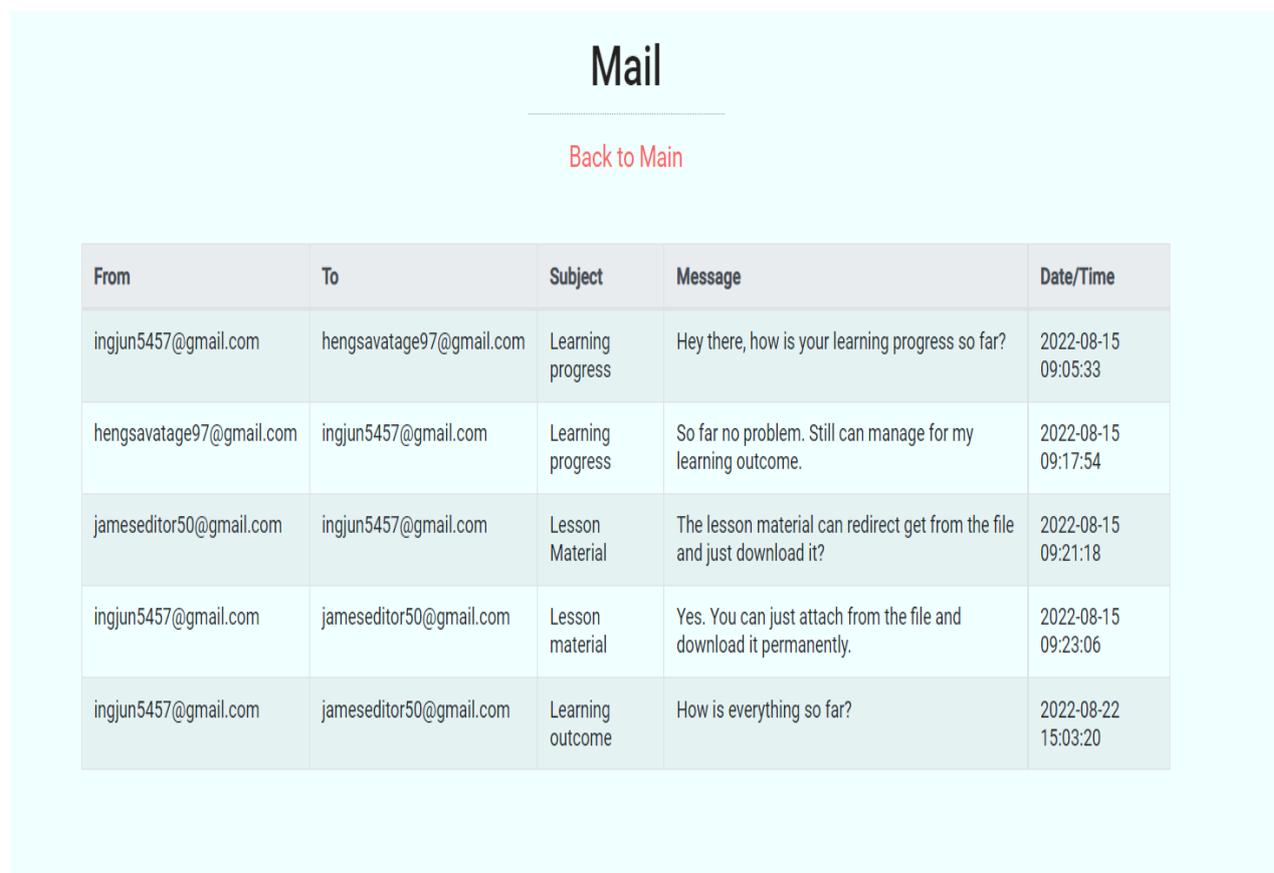


Figure 5.4.11.1 Mail (Mail Inbox of Recipient Send & Receive)

Figure 5.4.11.1 refers the mail inbox of the admin/user send and receive message through the platform of the system connecting the server of the mail inbox. This shows that the host of the SMTP enable to send the mail from the system platform by connecting with the SMTP server as the process is configuring the PHP mail. The form will be sending the mail message and will redirect forward to the email address account corresponding to the existing message, it will as well transfer the message into the mailbox for the admin or user as recipients to view the message which they had been send and receive.

5.4.11.2 Mail (View Message Log)


From	To	Subject	Message	Date/Time
ingjun5457@gmail.com	hengsavatage97@gmail.com	Learning progress	Hey there, how is your learning progress so far?	2022-08-15 09:05:33
hengsavatage97@gmail.com	ingjun5457@gmail.com	Learning progress	So far no problem. Still can manage for my learning outcome.	2022-08-15 09:17:54
jameseditor50@gmail.com	ingjun5457@gmail.com	Lesson Material	The lesson material can redirect get from the file and just download it?	2022-08-15 09:21:18
ingjun5457@gmail.com	jameseditor50@gmail.com	Lesson material	Yes. You can just attach from the file and download it permanently.	2022-08-15 09:23:06
ingjun5457@gmail.com	jameseditor50@gmail.com	Learning outcome	How is everything so far?	2022-08-22 15:03:20

Figure 5.4.11.2 Mail (View Message Log)

Figure 5.4.11.2 show the mail message log or can be the history of mail message that had send from the admin and user. The site is navigate from the admin clicking on the review message button link for the admin to view by tracking on the mail message log which is the records of mail flow from the mailbox fetch from the server. It is the mail message source of data retrieve from the sender and the receiver.

5.5 SQL Database**5.5.1 Admin/User – SQL Database**

No	Database Name	Data Type
1	id	int (10)
2	username	varchar (50)
3	email	varchar (50)
4	password	varchar (50)
s5	create_datetime	varchar (50)

Table 5.5.1 Admin/User– SQL Database

5.5.2 Lesson – SQL Database

No	Database Name	Data Type
1	id	int (10)
2	topic	varchar (255)
3	title	varchar (255)
4	file_type	text
5	filename	text
6	filename_timestamp	text

*Table 5.5.2 Lesson– SQL Database***5.5.3 Exercise – SQL Database**

No	Database Name	Data Type
1	id	int (11)
2	questions	varchar (255)
3	answer	tinyint (1)

*Table 5.5.3 Exercise– SQL Database***5.5.4 Tutorial – SQL Database**

No	Database Name	Data Type
1	id	int (10)
2	video_name	varchar (255)
3	video_type	text
4	video_file	text
5	videofile_timestamp	text

*Table 5.5.4 Tutorial– SQL Database***5.5.5 Quiz – SQL Database**

No	Database Name	Data Type
1	id	int (10)
2	quiz_questions	varchar (255)
3	answer A	varchar (255)
4	answer B	varchar (255)
5	answer C	varchar (255)

6	answer D	varchar (255)
7	correct_answer	varchar (255)

Table 5.5.5 Quiz– SQL Database

5.5.6 Gallery – SQL Database

No	Database Name	Data Type
1	id	int (11)
2	image_name	varchar (255)
3	datetime	datetime
4	description	varchar (255)
5	image_file	text
6	imagefile_timestamp	text

Table 5.5.6 Gallery– SQL Database

5.5.7 Mail – SQL Database

No	Database Name	Data Type
1	id	int (11)
2	from_email	varchar (255)
3	to_email	varchar (255)
4	subject	varchar (255)
5	message	varchar (255)
6	date_time	datetime

Table 5.5.7 Mail– SQL Database

Chapter 6 System Evaluation and Discussion

6.1 Survey Testing and Result

The purpose of conducting a survey is to collect data from the respondents with providing feedback and to identify the analysis of data result and the measurement of problems, the process of evaluation is also including the comparison of the requirements and specifications of the system. The survey method is using questionnaire to get the respondents for attempting so can be able to understand their perspective view regarding the system whether is effectiveness of using appropriately. There are around 60 respondents had attempt the survey questionnaire. The section of the survey questionnaire consists of demographic information, general questions, system evaluation, and user experience and feedback.

6.1.1 Demographic Information

1. What is your gender?

60 responses

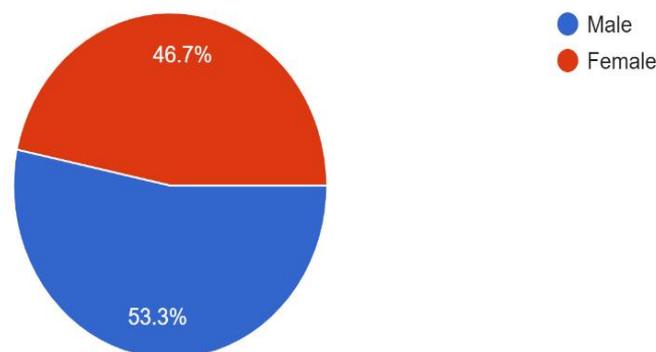


Figure 6.1.1-1 Demographic Information

The bar chart above shows the demographic information about the gender consists of male and female which is the fundamental needed in this survey questionnaire for segmenting data. The result provide are 53% of males and 47% female responses in the survey.

2. What is your current age?

60 responses

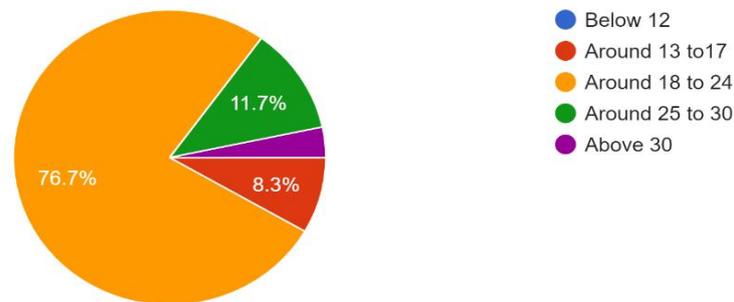


Figure 6.1.1-2 Demographic Information

The bar chart of the demographic information describe the age of the respondents. The range of the age from the survey questionnaire is among below 12 to above 30. Based on the result, there are none of the respondent is below 12 but most likely there are around 18 to 24 about 76.7%, age around 25 to 30 are around 11.7%, around 13 to 17 is 8.3%, and the least among age from the result is above 30 is only 3.3%.

3. What is your current education level have completed?(Choose more than one option)

60 responses

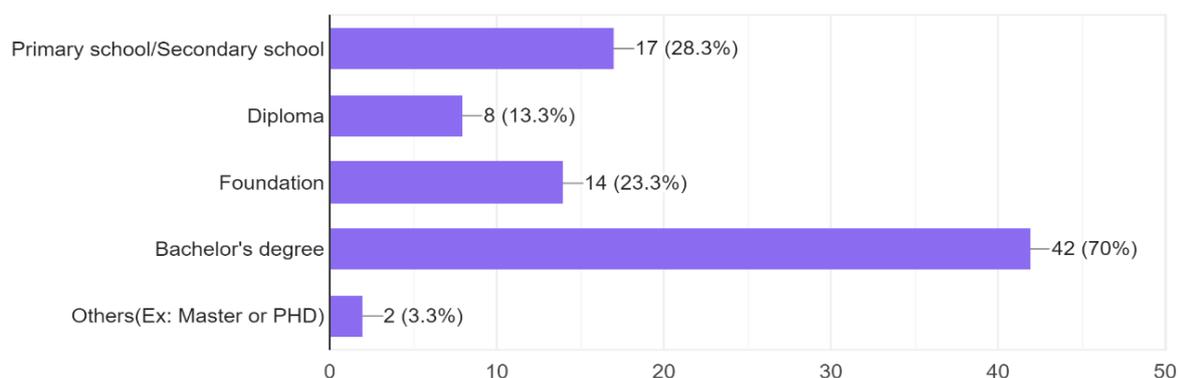


Figure 6.1.1-3 Demographic Information

From the graph of the demographic section shown is the questionnaire of current education level have completed from the respondents. There are primary school or secondary school has 17 participants that had completed is 28.3%, diploma has 8 participants completed is 13.3%, foundation has 14 participants completed is 23.3%, bachelor's degree consist of more

participants which are 42 participants is 70% and others such as master or PHD has only 2 participants about 3.3%.

6.1.2 General Questions

1. How long do you spend on learning from online each day?

60 responses

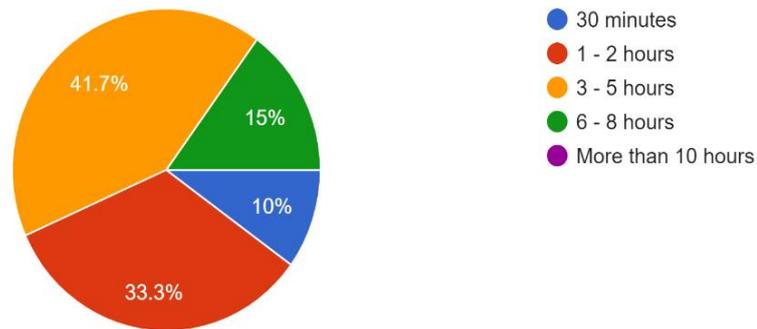


Figure 6.1.2-1 General Questions

The pie chart of the general questions shown about the hours spend on learning from online each day. The result of hours spending on learning is more on 3 to 5 hours which is 41.7%, spending around 1 to 2 hours is 33.3%, 6 to 8 hours is 15% and the least of 10% which hours spending is 30 minutes.

2. Which method of distance of learning would you prefer?

60 responses

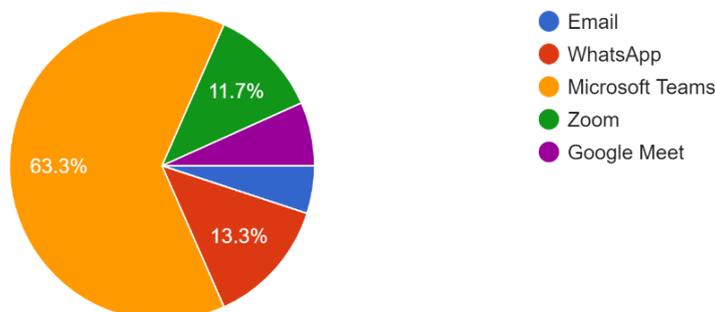


Figure 6.1.2-2 General Questions

Chapter 6 System Evaluation and Discussion

The pie chart above represents the method of distance of learning which is preferred by the participants. The results shown that most would prefer Microsoft Teams for learning distance which is 63.3%, prefer for WhatsApp is 13.3%, rate of distance learning method preferring Zoom is 11.7%, the least platform preferred are Google Meet and Email.

3. Which type of devices you most probably will used?

60 responses

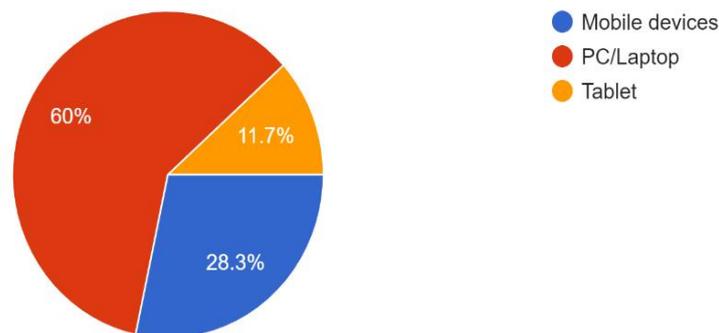


Figure 6.1.2-3 General Questions

The pie chart describes the type of devices that probably will be used by the participants. The results shown are PC or laptop is 60%, mobile devices used is 28.3% and tablet is the least probably will be used is 11.7%.

4. Which study mode preferences do you prefer?

60 responses

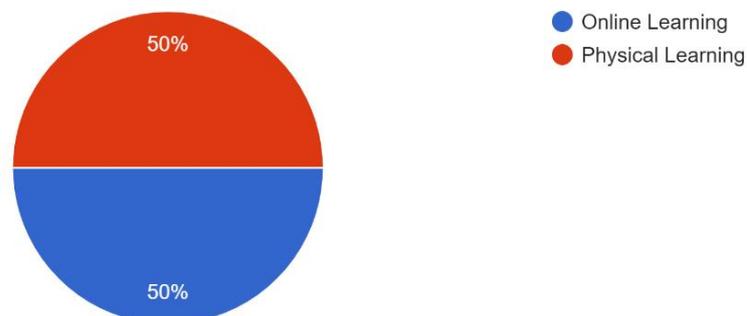


Figure 6.1.2-4 General Questions

Chapter 6 System Evaluation and Discussion

The following pie chart shown is the questionnaire of study mode preferences which the participants would preferred. The result outcome is expectedly average as both online learning and physical is partially preferred.

5. Which digital approaches allows you motivating for learning?

60 responses

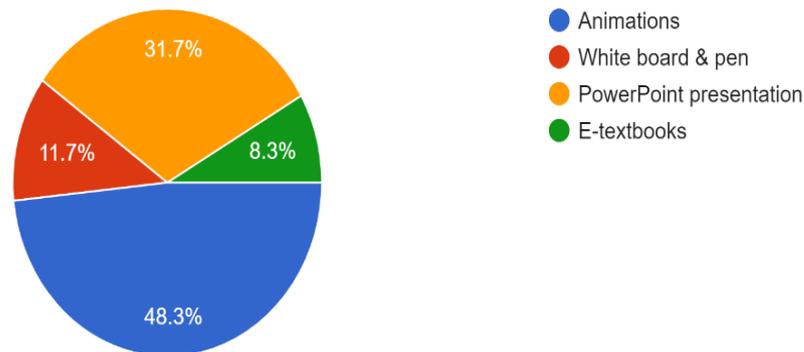


Figure 6.1.2-5 General Questions

The pie chart shows the digital approaches that allows motivating for learning to identify the participants selection. The result approximate the most chosen of digital approaches are animations which is 48.3%, next digital approaches is the PowerPoint presentation about 31.7%, white board and pen is 11.7%, and the least is the e-textbooks only 8.3%.

6.1.3 System Evaluation

The questionnaire of system evaluation concept for the participants to answer is to rate the option with the best indicate of the level agreement. The level agreement is about 1 to 5, the highest agreement is 5 while the lowest agreement is 1. As for neural agreement represent as 3.

a. Do you agree the usage of an online tools is effective for learning?

60 responses

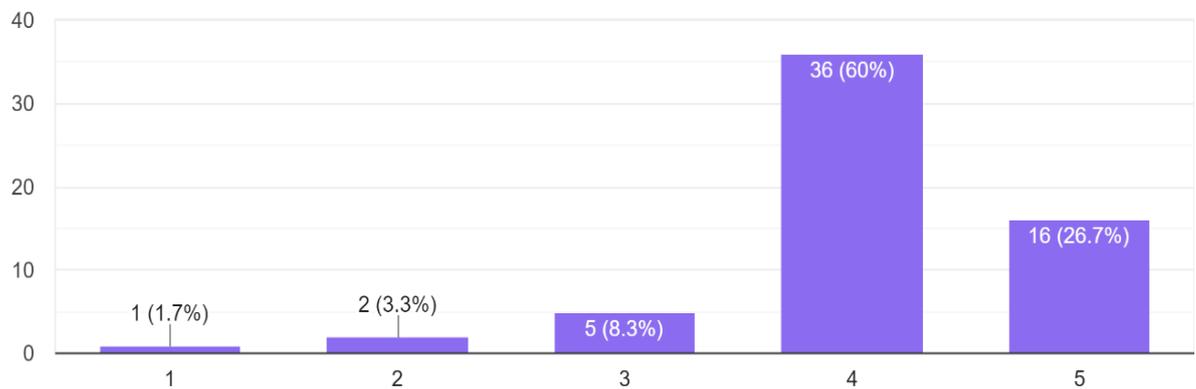


Figure 6.1.3-1 System Evaluation

The bar chart of the first system evaluation questionnaire is the review of the agreement on the usage of an online tools whether is effective for learning. The responses shown the most rate of agreement which is agree as 4 about 60% from 36 responses. The second rate is strongly agree as 5 about 26.7% from 16 responses. The result conclude that the evaluation has major of participants has agree on the usage of an online tools would be effective for learning.

b. Do you agree regarding the content apply from the online learning system is useful?

60 responses

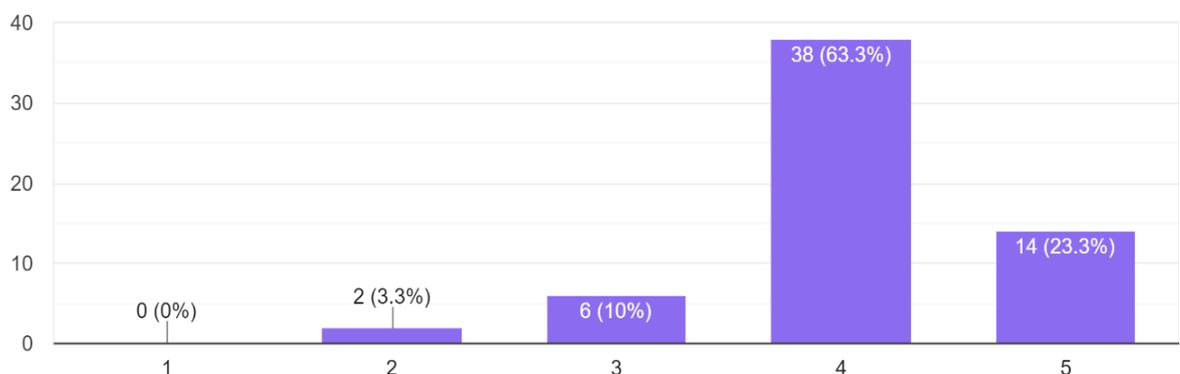


Figure 6.1.3-2 System Evaluation

Chapter 6 System Evaluation and Discussion

The bar chart of the questionnaire above shows the agreement of the usefulness content apply from the online learning system. The responses shown the most rate of agreement which is agree as 4 about 63.3% from 38 responses. The second rate is strongly agree as 5 about 23.3% from 14 responses while there is some of the responses is neutral as 3 about 10% from 6 responses. From the result recommend that the feedback responses is agree of the content apply from the online learning system is useful.

c. Do you agree the online learning system provide exercises to upload for learning materials?

60 responses

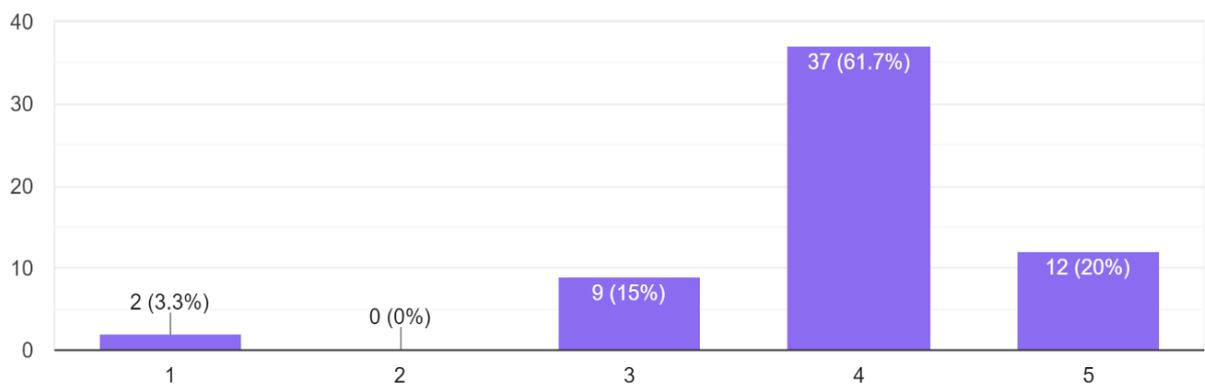


Figure 6.1.3-3 System Evaluation

The bar chart of the questionnaire above shows the agreement of the online learning system provide exercises to upload for learning materials. The responses shown the most rate of agreement which is agree as 4 about 61.7% from 37 responses. The second rate is strongly agree as 5 about 20% from 12 responses. There is some of the responses is neutral as 3 about 15% from 9 responses. The result of the questionnaire can conclude the responses is more on agree that the online learning system can be provide the exercises to upload for learning materials.

d. Do you agree the online learning system having video tutorial for learning?

60 responses

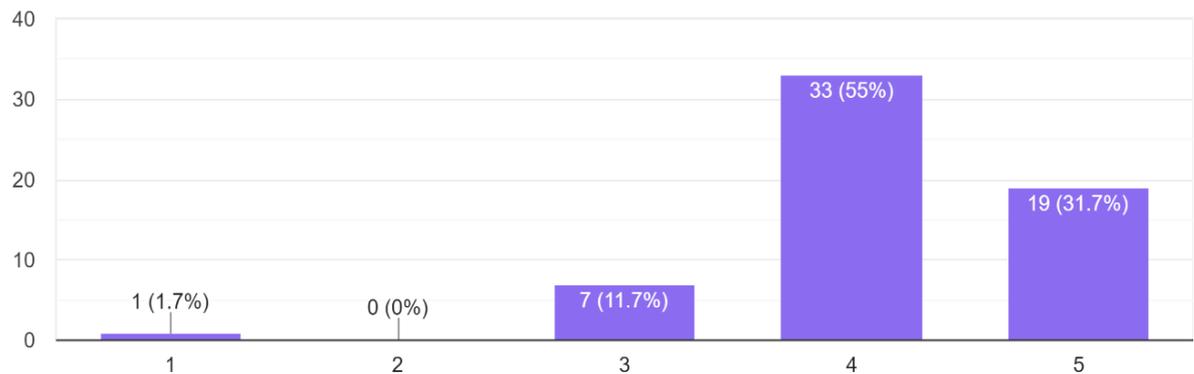


Figure 6.1.3-4 System Evaluation

The bar chart of the questionnaire above shows the agreement of the online learning system having video tutorial for learning. The responses shown the most rate of agreement which is also agree as 4 about 55% from 33 responses. The second rate is strongly agree as 5 about 31.7% from 19 responses while there is some of the responses is neutral as 3 about 11.7% from 7 responses that has different view compare from others questionnaire results. The outcome of the result remain agree with the online learning system by having video tutorial for learning.

e. Do you agree with the features of an online learning system to have quiz?

60 responses

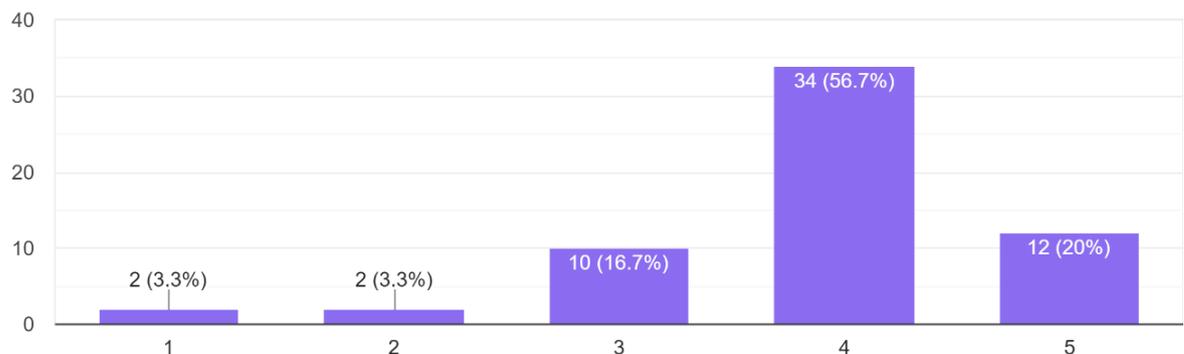


Figure 6.1.3-5 System Evaluation

Chapter 6 System Evaluation and Discussion

The bar chart of the questionnaire above shows the agreement regarding the features of an online learning system to have quiz. The responses shown the most rate of agreement which is agree as 4 about 56.7% from 34 responses. The second rate is strongly agree as 5 about 20% from 12 responses. There is also certain of neutral as 3 about 16.7% from 10 responses. From the results overview is still agree on the features of an online learning system to have quiz.

f. It is convenient for me to learn from online learning system.

60 responses

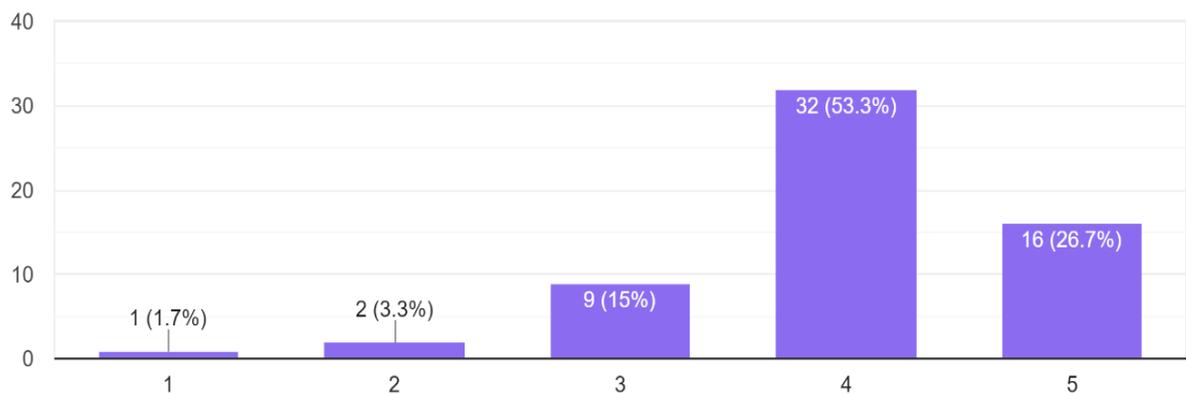


Figure 6.1.3-6 System Evaluation

The bar chart of the questionnaire above shows the agreement of online learning system is convenient to learn. The questionnaire is specific to understand the participants view of feedback. The responses shown the most rate of agreement which is agree as 4 about 53.3% from 32 responses. The second rate is strongly agree as 5 about 26.7% from 16 responses. There also have neutral agreement as 3 about 15% from 9 responses. The results of the questionnaire state that most has agree that it is convenient to learn from online learning system.

g. I think learning English with communication in face-to-face is more proficient than distance learning.

60 responses

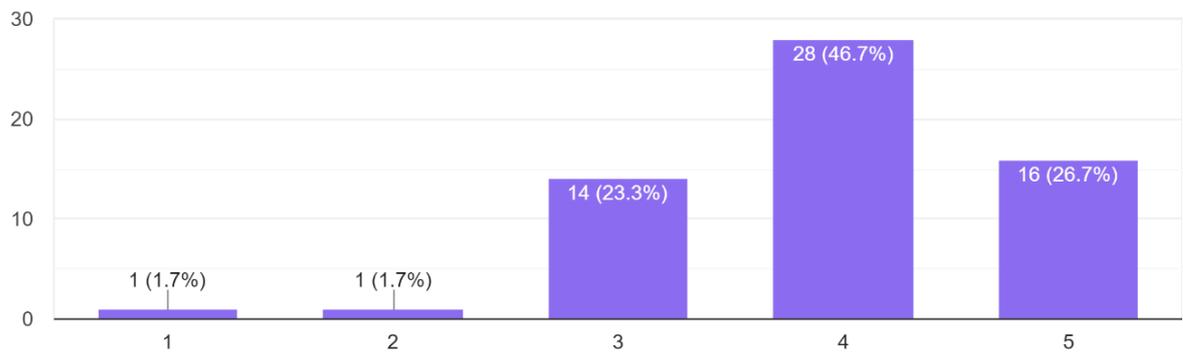


Figure 6.1.3-7 System Evaluation

The bar chart of the questionnaire above shows the agreement of learning English with communication in face-to-face is more proficient than distance learning. The questionnaire is also to know from the participants on their view of feedback. The responses shown the most rate of agreement which is agree as 4 about 46.7% from 28 responses. The second rate is strongly agree as 5 about 26.7% from 16 responses. There is the neutral agreement as 3 about 23.3% from 14 responses. The results of the questionnaire state that most has agree learning English with communication by face-to-face can be proficient than distance learning.

h. I think learning through online have the flexibility of participating without time and place constraints.

60 responses

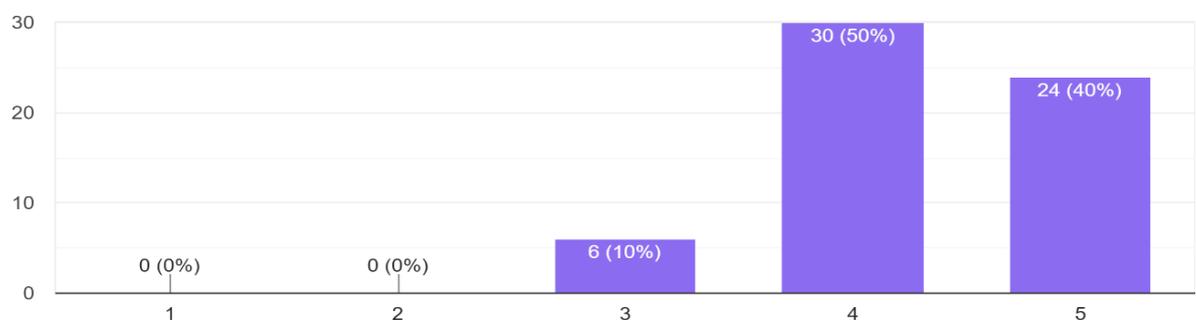


Figure 6.1.3-8 System Evaluation

The bar chart of the questionnaire above shows the agreement of the learning through online can have the flexibility of participating without time and place constraints. This questionnaire is about the participants view of opinion to response. The responses shown the most rate of agreement which is agree as 4 about 50% from 30 responses. The second rate is strongly agree as 5 about 40% from 24 responses. There also have neutral agreement as 3 about 10% from 6 responses. The results of the questionnaire describe that most responses is agree that the learning through online is flexible to participate without time and place constraints.

i. I found the online learning system can gain new skills and experiences.

60 responses

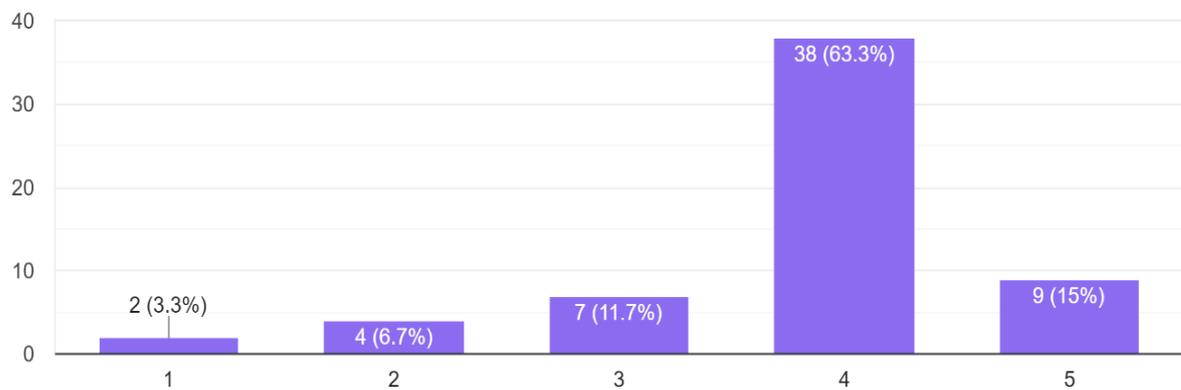


Figure 6.1.3-9 System Evaluation

The bar chart of the questionnaire above shows the agreement of the online learning system can gain new skills and experiences. From the responses shown the most rate of agreement which is agree as 4 about 63.3% from 38 responses. The second rate is strongly agree as 5 about 15% from 9 responses. There also have neutral agreement as 3 about 11.7% from 7 responses while the few remaining responses is either disagree or strongly disagree. The results of the questionnaire have the most responses is agree that the online learning system can be able to gain new skills and experiences.

j. I can have sufficient time for online learning.

60 responses

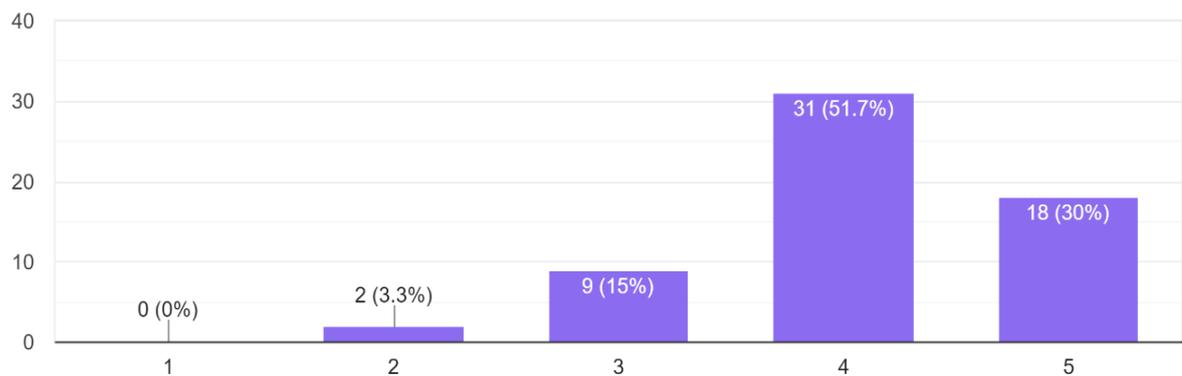


Figure 6.1.3-10 System Evaluation

The bar chart of the questionnaire above provide the agreement of having sufficient time for online learning. From the responses have the most rate of agreement which is agree as 4 about 51.7% from 31 responses. The second rate is strongly agree as 5 about 30% from 18 responses. There also have neutral agreement as 3 about 15% from 9 responses while there are only 2 responses is disagree. The results of the questionnaire state that most has agree that they can have sufficient time for online learning.

k. I can maintain with the outcome of learning through the approaches of distance learning.

60 responses

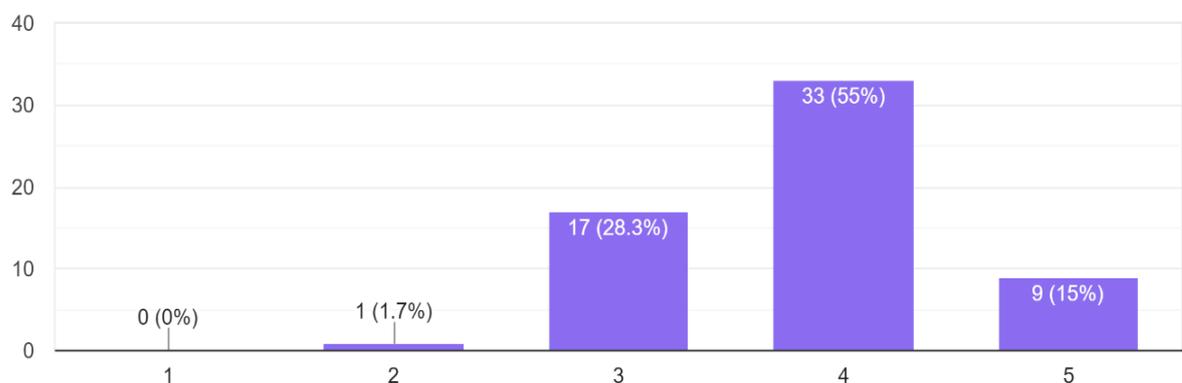


Figure 6.1.3-11 System Evaluation

The bar chart of the questionnaire above of the agreement is maintaining with the outcome of learning through the approaches of distance learning. From the responses have the most rate of agreement which is agree as 4 about 55% from 33 responses. The second rate is neutral as 3 about 28.3% from 17 responses. The next of the rate is strongly agree as 5 about 15% from 9 responses. The results of the questionnaire can determine most of the responses still has agree on the outcome of learning within distance learning.

I. I am able to motivate myself and enhance my knowledge through distance learning.

60 responses

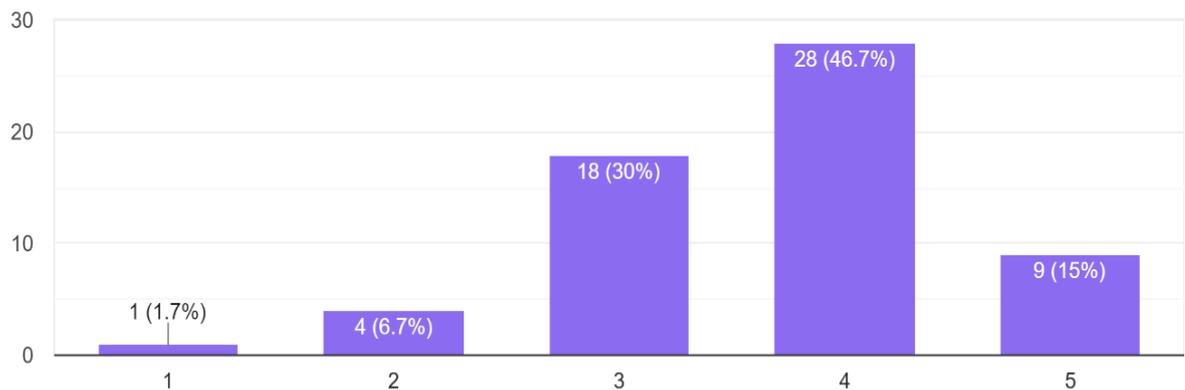


Figure 6.1.3-12 System Evaluation

The bar chart of the questionnaire above is the agreement of self-motivation and enhancing knowledge through distance learning. The responses have the most rate of agreement which is agree as 4 about 46.7% from 28 responses. The second rate is neutral as 3 about 30% from 18 responses. The next of the rate is strongly agree as 5 about 15% from 9 responses. The results of the questionnaire conclude regarding most has agree from distance learning can be able to motivate and gain by developing knowledge.

m. It is convenient for me to adapt with the approaches of learnings from the online learning system.

60 responses

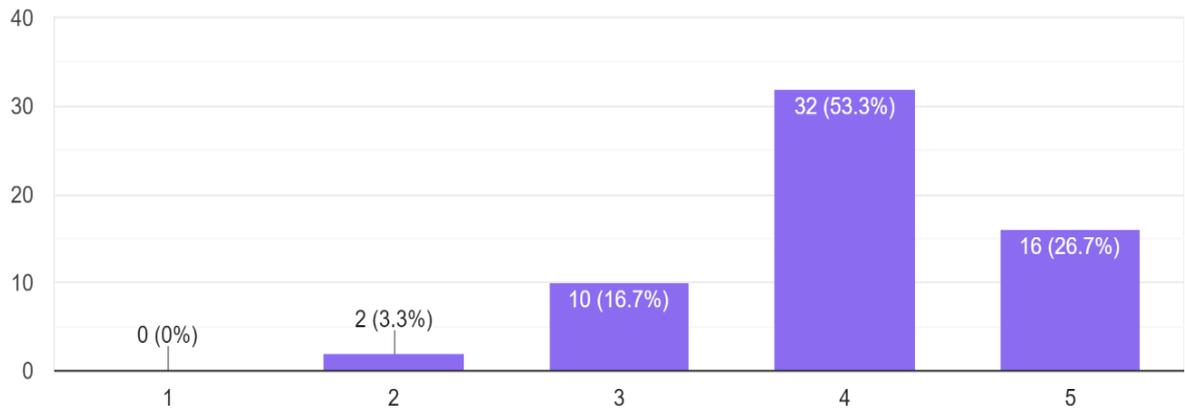


Figure 6.1.3-13 System Evaluation

The bar chart of the questionnaire of the agreement describe whether is convenient to adapt with the approaches of learnings from the online learning system. The responses have the most rate of agreement which is agree as 4 about 53.3% from 32 responses. The second rate is strongly agree as 5 about 26.7% from 16 responses while there is about 16.7% from 10 responses is neutral. The results of the questionnaire describe on most of the responses still has agree that it is convenient for them to adapt on the learning approaches through the online learning system.

6.1.4 User Experience and Feedback

The last section of the survey questionnaire is to identify the user experience and feedback from the participants which is to justify the recommendations on the improvement for online learning system.

1. Will you provide any future improvement on the system?

60 responses

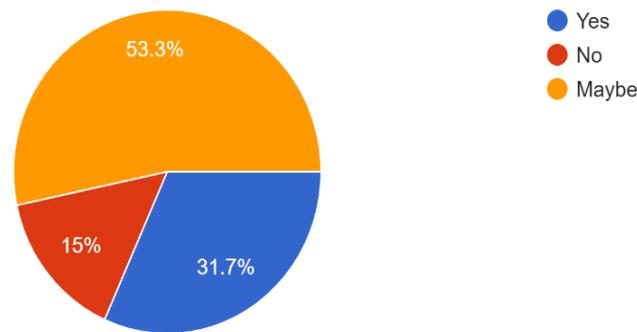


Figure 6.1.4-1 User Experience and Feedback

The pie chart of the questionnaire shows about the future improvement on the system. The responses most will be maybe provide feedback on the future improvement while others state yes and the least have no comment on the improvement.

2. Would you recommend the online learning system to others who wish to learn through online?

60 responses

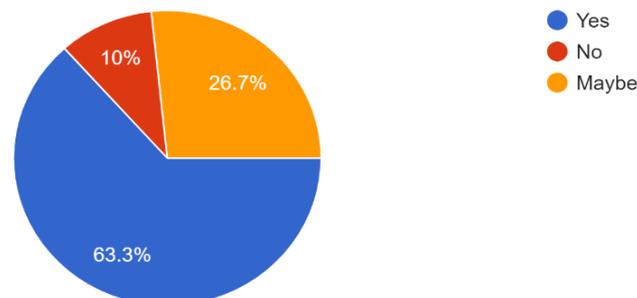


Figure 6.1.4-2 User Experience and Feedback

The pie chart of the questionnaire shows about the recommendation of the online learning system to others who willing to learn through online. Most responses is yes to recommend, as there are some participants will maybe recommend to others and others will not.

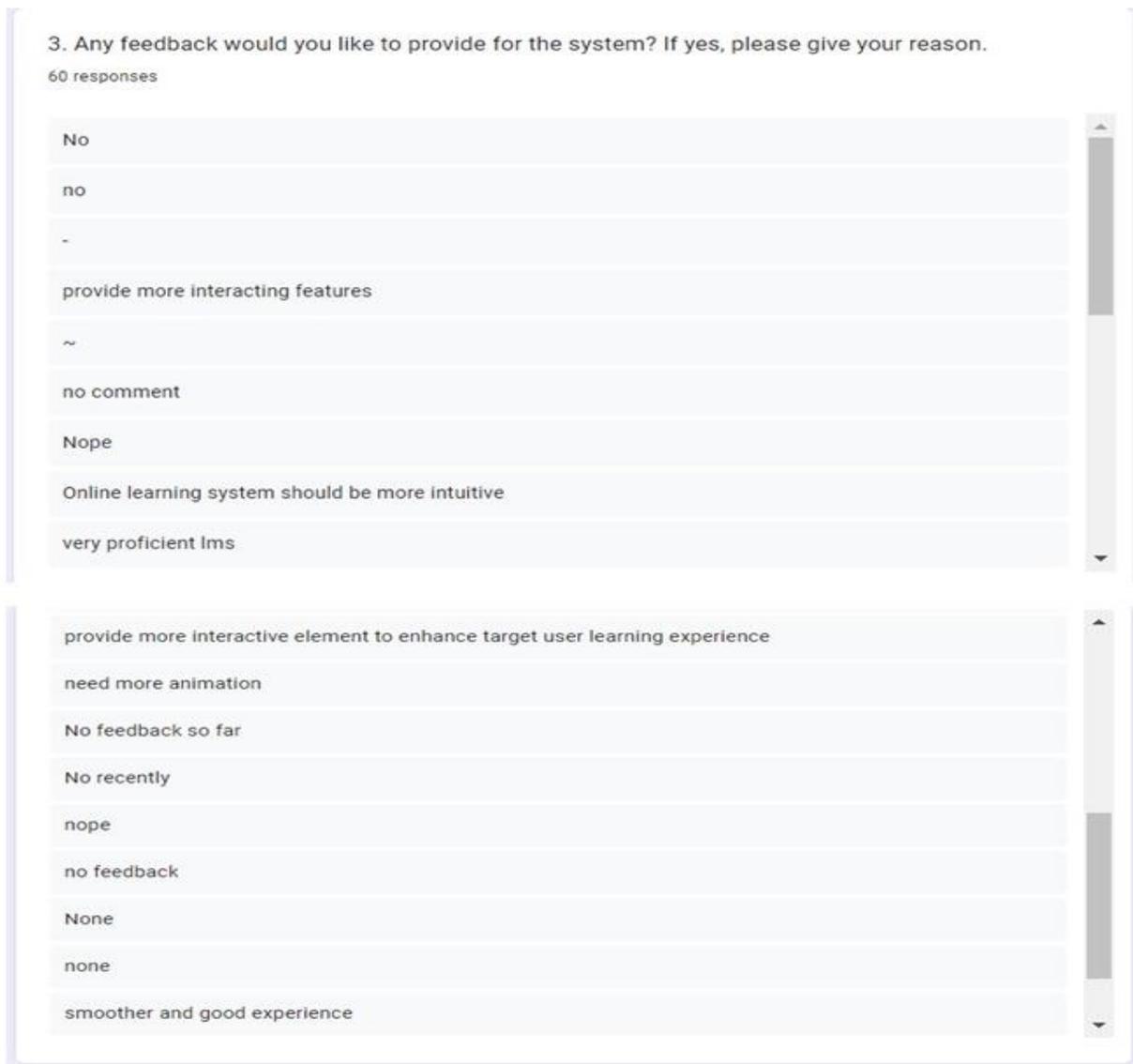


Figure 6.1.4-3 User Experience and Feedback

From the above shows the questionnaire about the feedback for the participants will provide on the system improvement based on their own justification. The feedback for the improvement for online learning system are needed to provide more interacting features, the online learning system should be more intuitive or proficient. Another comment is provide more interactive element for the target user learning experience to gain, more animation design applied in the system and the usage of the system needs to be smoother and good experience to make it more interesting for view instead of developing normal will be dull.

6.2 Discussion of System Evaluation

The overall data collected from the survey testing can be slightly match with the requirement of the system design and features. The first most relevant of the survey questionnaire about the system is to identify whether the audiences would prefer online learning or physical learning for study preferences and the devices they would probably use.

From the survey testing for system evaluation is significant to carry out of the outcome which the innovation of the learning system can be effective for learning. The method of learning is distributing with the influence of learning from indoor environment or outdoor environment is efficient. The responses from the participants from the result delivered is more agreement of learning distant can still develop learning to enhance knowledge while it also enable them to gain new experiences. Hence, the evaluation of the system is to understand their feedback given about their view of opinion of the online learning system tools usage and features whether it is effectiveness to use.

There are major of the system evaluation would need to highlight is by learning English would it be communication in face-in-face is better than distance learning. This result of questionnaire is commonly for the participants would be agree due to distance learning cannot be able to engage in person, meanwhile the possible could be having issues on using the online learning system tools without others to guide. As the online learning system have provide a video as tutorial guidelines with demonstration on learning. This can conclude that some of the learners would be having difficulties from online learning, so they would need to choose for physical learning to comprehend for their learning. It can be also state that online learning system tools allows the learners to gain new experience for learning as it also can develop different methods of learning currently at the trend of the technology had been upgraded.

Chapter 7 Conclusion and Recommendation

7.1 Project Review and Discussion

From this project, the project of online learning system somehow can still manage for the design of each feature and the functionality apply for the layout of the system including the navigation of the system page site or each section. But the system implementation functionality is mostly to create or add for the learning content which appear to be read from the server, uploading the file of the content and able to modify by making new changes or remove the unwanted content.

The purpose of the Online English Learning System is to allow the learners to gain motivation by learning through online, which the system have the learning materials such as lesson notes apply to develop English language skills with the structure of each topics given and the tutorial is basically upload for them as blended learning with demonstration method by illustrate and explaining on the learning phenomena as this is conduct different method for guiding instead of having face-to-face classes. It is just for self-study that is a specific of learning without limitation of time, the learners can watch the video multiple times they can wish. Apart from that, there have several exercise and quiz questions for them to attempt answer each that is provided. It is a unique method for them to practice from the exercises and quiz through online. Moreover, there are additional content to entertain from online is the gallery had published the images to offer the learners the inspiration on learning with reviewing on the visualize article. The complex concept of ideas for the system is allowing the learners or administrator to send mail messages which is an effective way for them to communicate through online learning platform by browsing Internet connection.

Conclusively, the major importance of this project is to distribute for the learners to gain their learning outcome and for them to meet the expectation for them to achieve on their learnings with gaining language skills. Besides, the learners will eventually get the quality of learning language through the methods of distance of learning as long they can be able to access from online. They can be forward to decide for themselves whether the online learning method is useful for them to strengthen their learning and boost their skills.

7.2 Future Work and Recommendation

The estimation of planning for the project to be complete is based on the justification of ideas for the system on which features functionality can be workable and sustain further for the usage through various of resources and existing systems that have lack of features comparing to the current system provided. There are some recommendations on the improvement of the system for the future.

First, the system has lack of proper design such as the layout need to be more intuitive such as the navigations having more selection to view and each of the buttons eventually is simplified of the design but there still can be strengthen even better of the layout and the security of the alert message need to have contextual feedback that is more availability to view and flexible. Each of the alert message can be creating the matching colour links inside the alert box which is suitable for the system security action instead of just prompt an empty options of alert message without classes. The examples classes of the colour links for the alert box are basically success, info, warning, danger and primary for each of the message to view clearly in the system as a sign.

Apparently, the development of the online learning system has lack of account security while the account profile need to have additional information such as full name, contact number, gender and others. The recommendation for future enhancement will need to allow the options of changing password if the admin or users have forgotten instead of just logging into the account show their username. Another is regarding the quiz functionality have lacking functionality like showing the attempt of questions and score of their answer by generating the result for them to view. The overview of the quiz currently had only managed to allow the user to attempt each question and answer while submitting will redirect them to just view the correct answer from ach questions given without letting them know which questions of the answer they have done wrong. Moreover, the system features will need to include a proper estimation of planning for the system functionality with more innovative ideas to gain attractive from the perspective view of the client. Thus, the online learning system have at least managed to provide the learning content and video guidelines for the learners to adapt for their learning.

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Appendix

Section 1 of 6

Online English Learning System For Novices ✕ ⋮

Hello to my lecturers and friends, my name is Chong Ing Jun. I am a student who is currently studying Bachelor of Information System (Honours) Business Information System from University Tunku Abdul Rahman, Kampar Campus. This questionnaire survey is for the requirement of my Final Year Project which known as "Online English Learning System For Novices" to develop for those who have inexperience on using or learning languages from online learning system. The objectives of this system testing survey questionnaire are to identify the effectiveness of various online tools and technologies, the preferred learning methods of the learners, and other factors that might influences the teaching-learning process. The data will be collected for educational purposes to understand from others perspective and feedback, but not for commercial usage.

Image title



Section 2 of 6

Section A: Demographic Information ✕ ⋮

Instructions: The section questions given are required to choose your answers.

1. What is your gender? *

Male

Female

Other...

2. What is your current age? *

Below 12

Around 13 to17

Around 18 to 24

Around 25 to 30

Above 30

3. What is your current education level have completed?(Choose more than one option) *

Primary school/Secondary school

Diploma

Foundation

Bachelor's degree

Others(Ex: Master or PHD)

Section 3 of 6

Section B: General Questions



Instructions: The section questions given are required to choose your answers.

1. How long do you spend on learning from online each day? *

1. 30 minutes
2. 1 - 2 hours
3. 3 - 5 hours
4. 6 - 8 hours
5. More than 10 hours

2. Which method of distance of learning would you prefer? *

1. Email
2. WhatsApp
3. Microsoft Teams
4. Zoom
5. Google Meet

3. Which type of devices you most probably will used? *

- Mobile devices
- PC/Laptop
- Tablet

4. Which study mode preferences do you prefer? *

- Online Learning
- Physical Learning

5. Which digital approaches allows you motivating for learning? *

- Animations
- White board & pen
- PowerPoint presentation
- E-textbooks

Section 4 of 6

Section C: System Evaluation



Based on your opinion, please rate the option with the best indicate with your agreement for the following statements.

Level of agreement:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Neutral
- 4 - Agree
- 5 - Strongly agree

a. Do you agree the usage of an online tools is effective for learning? *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

b. Do you agree regarding the content apply from the online learning system is useful? *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Appendix

c. Do you agree the online learning system provide exercises to upload for learning materials? *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

d. Do you agree the online learning system having video tutorial for learning? *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

e. Do you agree with the features of an online learning system to have quiz? *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

f. It is convenient for me to learn from online learning system. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Appendix

g. I think learning English with communication in face-to-face is more proficient than distance learning. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

h. I think learning through online have the flexibility of participating without time and place constraints. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

i. I found the online learning system can gain new skills and experiences. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Appendix

j. I can have sufficient time for online learning. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

k. I can maintain with the outcome of learning through the approaches of distance learning. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

l. I am enable to motivate myself and enhance my knowledge through distance learning. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

m. It is convenient for me to adapt with the approaches of learnings from the online learning system. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Section 5 of 6

Section D: User Experience and Feedback



Instructions: The section questions given are required to choose your own answers.

1. Will you provide any future improvement on the system? *

- Yes
- No
- Maybe

2. Would you recommend the online learning system to others who wish to learn through online? *

- Yes
- No
- Maybe

3. Any feedback would you like to provide for the system? If yes, please give your reason. *

Long answer text

.....

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 1 & 2
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Discuss about survey questionnaire on the first week and show to supervisor when done in week 2.

2. WORK TO BE DONE

Create questionnaire survey for respondent to fill. Target around 60 participants to collect feedback from their responses.

3. PROBLEMS ENCOUNTERED

Need to conduct the questionnaire based on the project objectives to match the requirement while making new changes.

Some participants will casually fill the survey.

4. SELF EVALUATION OF THE PROGRESS

The progress of creating questionnaire survey is fulfill while need to get the respondent to fill the survey and collect the data.

Khor SW

Supervisor's signature

Chong Ing Jun

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 3 & 4
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Start progress on development for each module functionality based on the project scope required.

2. WORK TO BE DONE

Will need complete every system feature functionality before submission of report and presentation demo

3. PROBLEMS ENCOUNTERED

First need to learn website development language before progress on each module.

Design user interface also require time consuming before working on features functionality.

4. SELF EVALUATION OF THE PROGRESS

Concept of idea for system implementation is still lack of innovative.

Khor SW

Supervisor's signature

Chong Ing Jun

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 5 & 6
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Continuous to progress on the system module while set the criteria which that able for the functionality to work.

2. WORK TO BE DONE

The flow of some module functionality of the system had manage to work.

3. PROBLEMS ENCOUNTERED

The design of the interface still need to be adjust.

4. SELF EVALUATION OF THE PROGRESS

The development for the system to process still need more testing to verify the bug or checking output error.

Another is ensure it is connected to MySQL database.

Khor SW

Chong Ing Jun

Supervisor's signature

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 7 & 8
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

The target of the respondent have reached.

The development of the system features have progress around 70% complete

2. WORK TO BE DONE

Show each of the system functionality features to supervisor to review which need to modify from his comments.

Start drafting report of chapter 1 to 7 to send to supervisor by week 11

3. PROBLEMS ENCOUNTERED

Still to make some minor changes for system functionality.

Based on the project objectives, one of the module features need to provide more content in the system.

4. SELF EVALUATION OF THE PROGRESS

Report start a bit late after progress on partial of the system prototype functionality.

Khor SW

Supervisor's signature

CIJ

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 9 & 10
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Complete the remaining system module functionality.

Progress on the report for Chapter 1 to 4.

2. WORK TO BE DONE

Complete develop the each of the system functionality and still need make minor changes for the maintenance such as proper design and add on information.

Update new diagrams in chapter 3 and 4

3. PROBLEMS ENCOUNTERED

Got some design of the system is not consistent and need to adjust properly.

No problem for report just need some amount of time for each content structure to complete.

4. SELF EVALUATION OF THE PROGRESS

Still need to improve on the system although have done implementing the features.

Khor SW

Supervisor's signature

Chong Ing Jun

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 11
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Draft for every chapter of report is complete.

The remaining of the system features implement still have to show supervisor to get from his comment.

2. WORK TO BE DONE

Show to supervisor for the report and system development that have update.

3. PROBLEMS ENCOUNTERED

Just make minor changes for the report from his comment and keep updating on the system development.

4. SELF EVALUATION OF THE PROGRESS

Progress is smooth so far.

Khor SW

Supervisor's signature

CIJ

Student's signature

FINAL YEAR PROJECT WEEKLY REPORT

(Project II)

Trimester, Year: Y4T1	Study week no.: 12
Student Name & ID: Chong Ing Jun / 19ACB01917	
Supervisor: Khor Siak Wang	
Project Title: ONLINE ENGLISH LEARNING SYSTEM FOR NOVICES	

1. WORK DONE

[Please write the details of the work done in the last fortnight.]

Strengthen the whole complete report.

Add on information for the account in system development and adjust the design completely but still need to maintain updating for the content from the system before presentation and demo

2. WORK TO BE DONE

Complete the whole report before submitting and update on system development.

3. PROBLEMS ENCOUNTERED

No problems encountered.

Discuss with supervisor with arranging a meeting if got anything need to be update immediately.

4. SELF EVALUATION OF THE PROGRESS

Progress is almost complete.

Khor.SW

Supervisor's signature

Chong Ing Jun

Student's signature

POSTER

Online English Learning System For Novices



Introduction



Online English Learning System is for those learners or novices who was inexperienced of learning languages. The online learning system is a website platform enables to gain access for learning, efficiency for improving, and convenient to use.

Objectives



- ✓ To improve the learning and teaching quality from the platform.
- ✓ To provide an opportunity for the individual with an effective self-pace learning.
- ✓ To allow the approaches of remote learning for delivering new experiences and challenges.

Methodology

-> SDLC Process

- ✓ Phase 1: Analysis
- ✓ Phase 2: Planning
- ✓ Phase 3: Design
- ✓ Phase 4: Development
- ✓ Phase 5: Testing
- ✓ Phase 6: Maintenance



System Result



Admin

- ✓ Sign up, login or logout to the account and view account information.
- ✓ Manage user record lists by insert or delete.
- ✓ Add/upload, edit and delete lesson content materials.
- ✓ Create, update and delete exercise question and answer.
- ✓ Insert/upload or delete tutorial video.
- ✓ Create, update and delete quiz question and answer.
- ✓ Insert/upload, edit or delete gallery image.
- ✓ Send/receive mail message to user and review message history.

User

- ✓ Sign up, login or logout for account and view account information.
- ✓ Retrieve lesson content materials and download from file.
- ✓ Answer exercise questions by choosing true or false answer and submit.
- ✓ View tutorial video.
- ✓ Answer quiz questions by choosing only one answer and can review the correct answer after submitting.
- ✓ View image information from gallery.
- ✓ Send/receive mail message to admin.

Conclusion



In a conclusion, there will be needed for the system enhancement in future. The system need a proper design which is the layout need intuitive for the view of navigations and buttons. The security of the alert message need more availability to view and flexible such as creating the matching color links inside the alert box that is suitable for the system security action. The system need to allow for various options for changing password if the admin or users have forgotten instead of just logging into the account show their username. This include the quiz functionality have lacking functionality like showing the attempt of questions and score of their answer by generating the result for them to view. The system have at least managed to provide the learning content and video guidelines for the learners to adapt for their learning.



By Chong Ing Jun

Bachelor of Information Systems (Honours) Business Information Systems
Faculty of Information and Communication Technology (Kampar Campus), UTAR

FINAL YEAR PROJECT

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TECHNOLOGY**

Full Name(s) of Candidate(s)	Chong Ing Jun
ID Number(s)	19ACB01917
Programme / Course	Bachelor Of Information Systems (Honours) Business Information Systems(IB)
Title of Final Year Project	Online English Learning System For Novices

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Based on the above results, I hereby declare that I am satisfied with the originality of the Final Year Project Report submitted by my student(s) as named above.

Khor SW

Signature of Supervisor

Name: Khor Siak Wang

Date: 02/09/2022

Signature of Co-Supervisor

Name: _____

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FACULTY OF INFORMATION & COMMUNICATION TECHNOLOGY (KAMPAR CAMPUS)

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