DOCUMENT FORMAT MANAGEMENT

By

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I declare that this report entitled "METHODOLOGY, CONCEPT AND DESIGN OF THE DOCUMENT FORMAT MANAGEMENT" is my own work except as cited in the references. The report has not been accepted for any degree and is not being submitted concurrently in candidature for any degree or other award.

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Name   : _____

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FORMAT MANAGEMENT

Academic Session: Year 3 Semester 3

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Finally, I want to thank my parents for their support and encouragement in my studies.

ABSTRACTS

This project is a document format management for academic journal purpose. It addresses the formatting of research for authors to submit articles for review. It generate a layout such as Institute of Electrical and Electronics Engineers (IEEE), Association for Computing Machinery (ACM), Public Library of Science (PLOS) and so on, for them which they use to write their research paper and save it in variable formats such as Portable Document Format (PDF) or Microsoft Work Document (DOCX).

Unfinished works are able to save it into database so that user allow to retrieve the saved data works next time when they come back and continues their work. These document format management are typically simulate the layout of the articles published by the author. It able to let author to preview their work in HTML layout before export.

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Chapter 1: Introduction

1.1 Motivation and Problem Statement

Word Processor software is a computer software application that helps users to perform word processing such as composition, editing, formatting and others. It is a tool that used by a lot of people who work in the office. It has been many work processor software established by other developers which can be categorized into free version and pay version. It comes to a trend that most of the people are getting comfort with getting their job done via computer by just typing whatever in their mind to generate a report, without the need of getting their hand dirty by writing it on a paper. This is due to the reasons: easy and speedy processing, convenient of document storage, and also environmental friendly of moving to paperless. It also solves the issues that arose by those people who are struggling on their special hand writing. Word Processor software comes to an important role to 'customize' the fonts the users prefer and generate a form of document generally can be readable by everyone.

Word Processor software generally invented to cater wide range of users. Students who need to complete their assignments by submitting the reports, for almost every semester. The reports typically needed to be designed in a certain format, for example: font size, header, footer, reference, and quotation format. This actually gives the students a hard time by setting up the format to meet the requirements. It would involve a lot of paper work if the student choose to complete the report manually.

News writers commonly generate bundles of articles daily. Most of them having problem in using word processor to set up the format they wish to have. It is because not everyone could afford to pay for the fees to use the word processor to do their document formatting. The basic word processor is only used for normal fonts inputting, most of the users do not even know the more-in-depth functions of the work processor.

User does not have a centralized system or software that helps them to generate a document files by auto formatting the input texts. Due to the difficulties and complexities of using those word processor software, there are not many users who know exactly the way of formatting the texts. In addition, even if they do, they might not getting the right format of other needs. For example, if you are required to write an IEEE style journal report, you might not have any clue of writing it in the right format.

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It would end up wasting time on 'googling' to find out the right answer and to understand it completely. Or when there are multiple format of reports that needed to be handed up at the same time, you might hitting your brain to find out what is Institute of Electrical and Electronics Engineers (IEEE), Association for Computing Machinery (ACM) or Public Library of Science (PLOS) format is before you kick a good start.

Even though Microsoft word 2013 provides thousands of templates which is sufficient for ordinary users, the exclusion of IEEE, ACM and PLOS templates and the 'pricey' licensing purchasing that lead to the drawbacks of getting it. Because it cost around RM870 to RM1500 for the Microsoft Office Suites 2013.

By developing a document formatting management software, it helps students, workers or writers to make their paper works become easier. With this system, users can effectively reduce their work load without getting themselves in trouble through setting up the format in word processing or having trouble without the need to understand what the format is.

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1.2 Project Scope

This project is plan to develop an online application which allow to configure formats such as IEEE, ACM, PLC and so on, this will provide users an interface to select the format they wanted and then let the users to key in or upload the contents. Consequently it will generate the layout for the user. The user will select the format and layout is generated on which user can write their work. The generated document will be save.

Unfinished work can be save in the database and retrieve it later for further modification. After the user finish their work, user is able to export it in Portable Document Format (PDF) and save it into database for backup and future use.

1.3 Objective

   i.   To develop a component that provides the configuration of a desired format.
  ii.   To devise an interface lets user to select the desired document format.
 iii.   To devise an interface lets user to select the desired referencing format.
 iv.   To generating and initializing the related layout of document as a result of selected format.
  v.   To save the prepared document in database.
 vi.   To allow user to load or retrieve back the saved document from database.
vii.   To preview the layout in HTML style.
viii.   To export the document in Portable Document Format (PDF)

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1.4 Background Information

A document file format can be a text or binary file format. It allows storage media to store the documents, mainly for use by computers, tablets and smartphones devices. It can exist in few type of incompatible document file formats: RTF File Format, DOC File Format, DOCX File Format, Opening Word 95 DOC Format Files, and Opening Word 97-2003 DOC Format Files.

For future document file formats, an agreement has been made to prove that XML should be the technical basis for it. Even though PDF is ease to remain as the selecting format for fixed-layout documents. For example, the recent XML-based open standards are ISO/IEC standards, Office open XML, followed by XHTML and DocBook.

The recent ISO/IEC standards are published to cater the issues arising from page description languages (PostScript and PDF) that only allow typical users to create and read the documents, but not edit.

While HTML is the most used and open international standard. It has recently becomes ISO/IEC standard and also used as document file format. The concerning fact standard for office documents that the default binary file format used by Microsoft Word is a proprietary format and not always supported by other word processors.

Chapter 2 Literature Review

2.1 Literature Review

According to the studies, one of the most widespread applications of computers is document formatting software. The hardware used have modernized the production of documents and broadened the idea of what a document might be. (Jeffrey. H, 1997, p.1)

Document formatting systems come with two camps. The first camp is about the interactive document editors. It offers an editable screen image of the document layout. For example, word processing systems and desktop publishing systems like: Interleaf and FrameMaker. (Jeffrey. H, 1997, p.1) Figure 2.1 below is an example of a desktop publishing system.
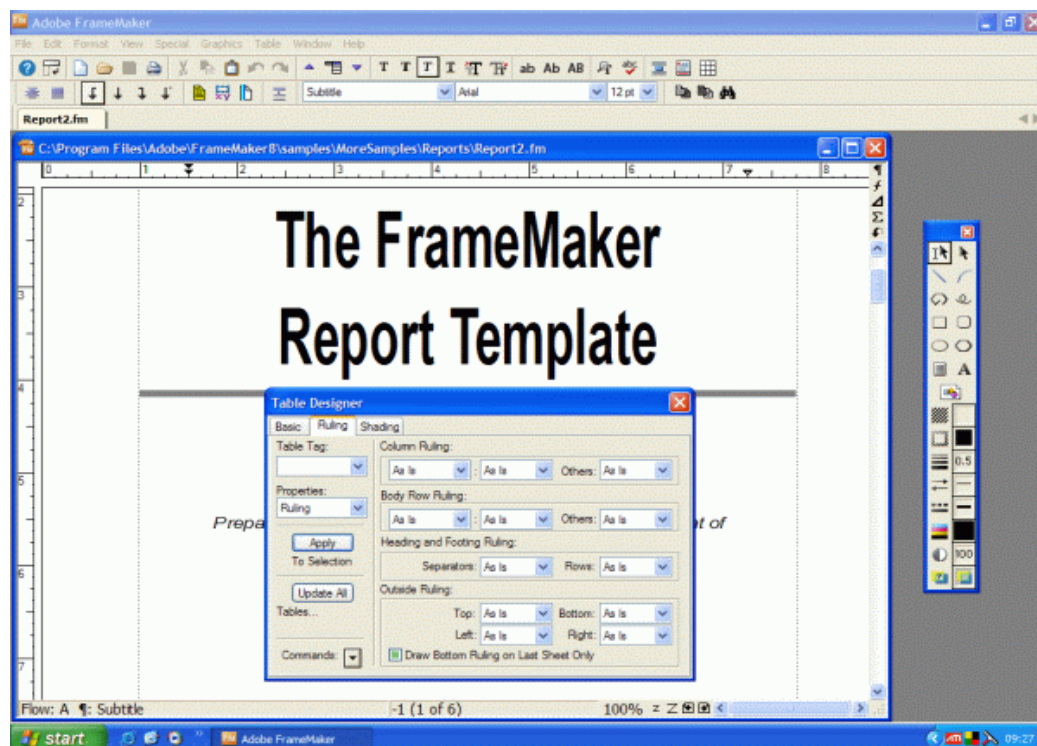

Figure 2.1 Desktop Publishing FrameMaker

While the other camp, the batch formatter that produces a non-editable layout. For example Lout, TEX, and Scribe. Nonetheless, there are some limited interactivities offered by batch formatters, such as the ability of filling in form or clicking on hyperlink. (Jeffrey. H, 1997, p.1) Figure 2.2 is an example of a batch formatting system.
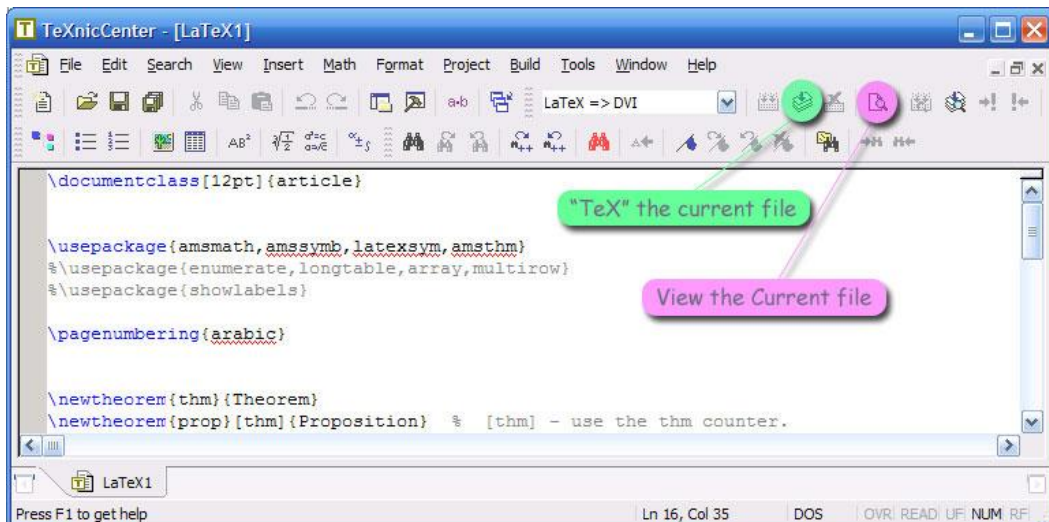
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Figure 2.2 Batch formatting LaTeX

2.1.1 The Camps versus The Features

Editability: the ability to edit the content, which is very suitable and giving advantages for interactive systems: word processing and desktop publishing systems. For example, when the logical structure does not follow a tree pattern, the user will be able to click on any pair of nodes to show that they are joined by an edge. But, it is not suitable for batch formatting system as the logical structure is not a tree-like pattern and the slow processing of edit-formatting-view cycle. In this case, it is essential for user to create names for the nodes and use the name when creating the edges. This will lead to more error-prone. Overall, the disadvantages of the interactive systems are lack of content structure in interactive editor and not very effective to use as editors as compare with good text editors.

Extendability: the ability to adding new features easily, which suits for batch formatters. It implies some initial kernel of primitive features. This includes horizontal and vertical stacking, rotation, and more. It also offers extra features, like getting floating figures and footnotes. But such features are lack of predictability.

Typography: the ability to embed fonts and design typefaces. It can be technique and art of arranging words in order to make language readable which includes hyphenation, ligatures, spacing and kerning. (Bringhurst & Robert, 2005. pp. 32) Figure 2.3 is an example of typography word.

Figure 2.3 Typography 'LIFE'

Optimality: the capability to find out the best possible layout for the given content. A good layout not certainly an optimal layout, and not all the optimal layout is certainly a good layout. Although in practice, optimal layout usually reduces the burden of rewriting content and this is why it has been included, but it does not inevitably reduce the burden of rewriting content in order to achieve a good layout. (Jeffrey H, 1997, pp.5-6)

The minimum badness in leaf node is the optimal layout. To do so, by creating more partial documents, each leaf node will applied an atomic operation. The leaf nodes will indicate all the layouts of document of interest until the sequence ends. (Jeffrey H, 1997, pp.7)

Beside, Widow Word and Orphan Word will also make the nodes become bad nodes. Widow Word means that the last sentence of the paragraph is falls at the beginning of the next page's first column. Orphan Word means that the starting sentence of the paragraph that appears by itself at the bottom of a page's last column or part of the sentence appears by itself at the end of a paragraph. By adding some words to a paragraph which has orphan word or widow word will help reduce the badness. (Jeffrey H, 1997, pp.7) Figure 2.4 is an example of how to reduce bad nodes.

Figure 2.4 Widow Word and Orphan Word

2.2 Fact Finding

The benchmark system that being used to compare is StyleEase and LaTeX.

StyleEase is an interactive document editor from academic formatting software company that used to build in with Microsoft words, it develop solutions for academic writers. StyleEase provide software system that automatically formats your document in APA, MLA or Chicago style within Microsoft Word, so that user no need to focusing on the referencing format and can just only focus on writing. But it lack of style which used by article which is IEEE format. Figure 2.5 is an example of the StyleEase Reference Entry.

Figure 2.5 StyleEase Reference Entry

As you can see this is the APA style reference interface for the StyleEase System. It provides user some text field to let user to key in necessary information to generate the reference.

LaTeX is batch formatting system, is a high-quality typesetting system, it includes the features for the writer to design those technical and scientific documentation. It is the de facto standard for the communication and publication of scientific literature.

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(LaTeX, n.d) Even though it got template for all style and formatting. But it required knowledge of using LaTeX language in order to create a document. Figure 2.6 is an example of the LaTeX language and the output of the language.

```
\documentclass[12pt]{article}
\usepackage{amsmath}
\title{\LaTeX}
\date{}
\begin{document}
  \maketitle
  \LaTeX{} is a document preparation system for the \TeX{}
  typesetting program. It offers programmable desktop
  publishing features and extensive facilities for
  automating most aspects of typesetting and desktop
  publishing, including numbering and cross-referencing,
  tables and figures, page layout, bibliographies, and
  much more. \LaTeX{} was originally written in 1984 by
  Leslie Lamport and has become the dominant method for
  using \TeX; few people write in plain \TeX{} anymore.
  The current version is \LaTeXe.

  % This is a comment, not shown in final output.
  % The following shows typesetting power of LaTeX:
  \begin{align}
    E_0 &= mc^2                                    \\
    E &= \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}
  \end{align}
\end{document}
```

LaTeX

LaTeX is a document preparation system for the TeX typesetting program. It offers programmable desktop publishing features and extensive facilities for automating most aspects of typesetting and desktop publishing, including numbering and cross-referencing, tables and figures, page layout, bibliographies, and much more. LaTeX was originally written in 1984 by Leslie Lamport and has become the dominant method for using TeX; few people write in plain TeX anymore. The current version is LaTeX 2_ε.

$$E_0 = mc^2 \qquad (1)$$

$$E = \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}} \qquad (2)$$

Note how the equation for E was typeset by the markup:

```
E &= \frac{mc^2}{\sqrt{1-\frac{v^2}{c^2}}}
```

The square root is denoted by "sqrt" and fractions by "frac".

Figure 2.6 LaTeX Language and output

As you can see, the user need to learn the LaTeX language in order to create own document. The left side is the LaTeX language that allow user to modify and the right side is the output of the LaTeX language coding. As the journal that review at the above. Batch formatting edit-format-view cycle is very slow.

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Chapter 3 System Design

3.1 How project is developed

For this document format management website system, it is using Servlets and JavaServer Pages (JSP) programming language, this technology able to help developer to develop a dynamically generated web pages based on HTML, JAVA, SCRIPT, XML, or other document types. This website developed by using the development tool called NetBean IDE and the database created by using the development tool called MySQL Query Browser.

NetBean IDE provides an environment for design the JSP source code for this website. By this, developer able to design the webpage easily. Once the developer run the project, there is no need for developer to re-run the project after editing the code inside the project. The developer only need to refresh the webpages after saved the webpage that had been edited.

Notepad++ also a good application for developer to backup and editing code. It build with the feature that allow user from back text to other language such as JSP, JAVA, HTML, SQL and others. By changing the language to other preferable language the application will auto highlight those keywords to allow user to see more clearly.

3.2 Technology Involve

The software that uses to develop the system is:-

- MySQL
- NetBean
- Window OS
- Notepad++

The hardware that uses to develop the system is:-

- Personal Computer

The language that uses to develop the system is:-
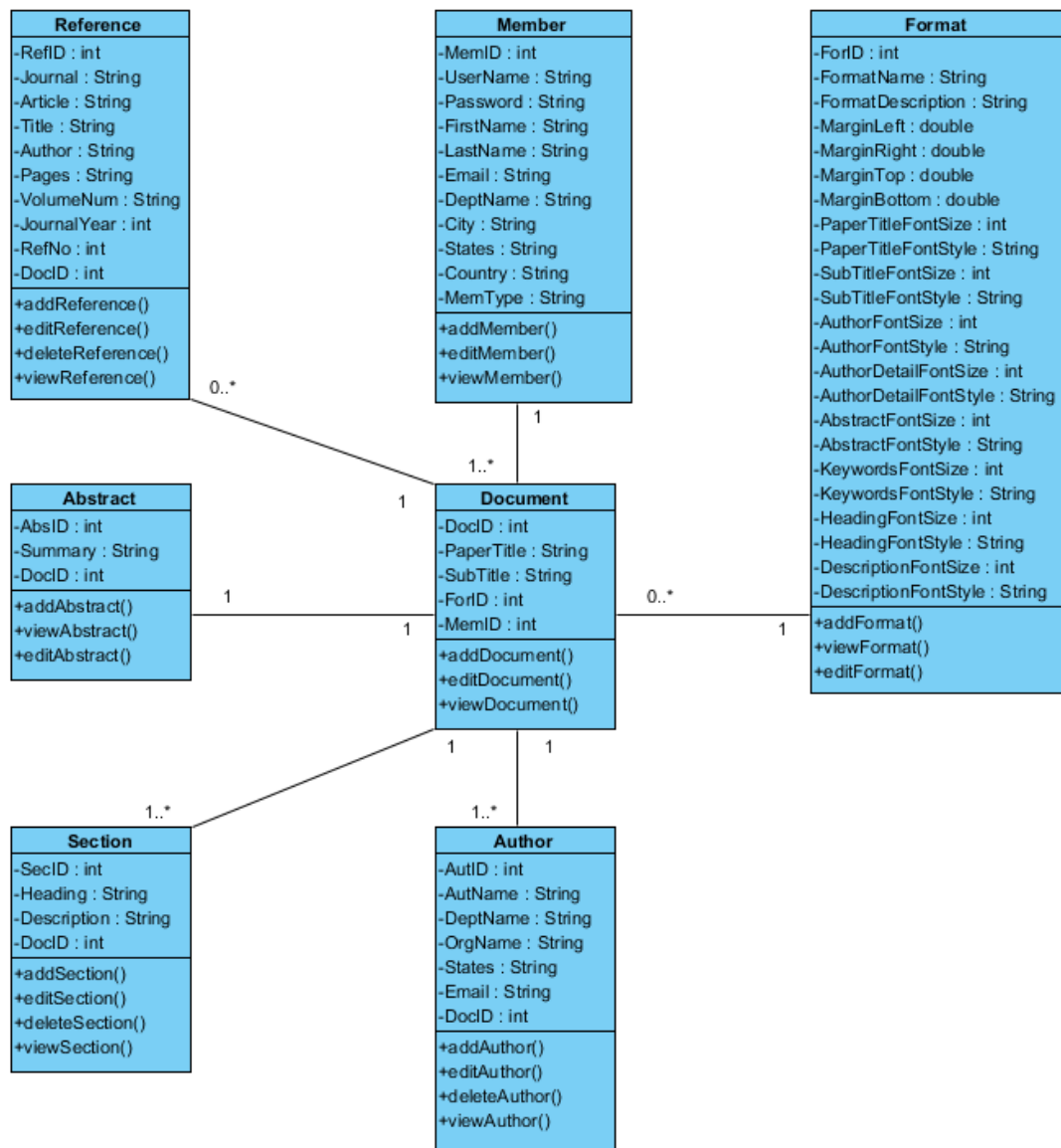
- JSP
- HTML
- JavaScript
- Java
- MySQL

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3.3 Class Diagram

Reference
-RefID : int
-Journal : String
-Article : String
-Title : String
-Author : String
-Pages : String
-VolumeNum : String
-JournalYear : int
-RefNo : int
-DocID : int
+addReference()
+editReference()
+deleteReference()
+viewReference()

Member
-MemID : int
-UserName : String
-Password : String
-FirstName : String
-LastName : String
-Email : String
-DeptName : String
-City : String
-States : String
-Country : String
-MemType : String
+addMember()
+editMember()
+viewMember()

Format
-ForID : int
-FormatName : String
-FormatDescription : String
-MarginLeft : double
-MarginRight : double
-MarginTop : double
-MarginBottom : double
-PaperTitleFontSize : int
-PaperTitleFontStyle : String
-SubTitleFontSize : int
-SubTitleFontStyle : String
-AuthorFontSize : int
-AuthorFontStyle : String
-AuthorDetailFontSize : int
-AuthorDetailFontStyle : String
-AbstractFontSize : int
-AbstractFontStyle : String
-KeywordsFontSize : int
-KeywordsFontStyle : String
-HeadingFontSize : int
-HeadingFontStyle : String
-DescriptionFontSize : int
-DescriptionFontStyle : String
+addFormat()
+viewFormat()
+editFormat()

Abstract
-AbsID : int
-Summary : String
-DocID : int
+addAbstract()
+viewAbstract()
+editAbstract()

Document
-DocID : int
-PaperTitle : String
-SubTitle : String
-ForID : int
-MemID : int
+addDocument()
+editDocument()
+viewDocument()

Section
-SecID : int
-Heading : String
-Description : String
-DocID : int
+addSection()
+editSection()
+deleteSection()
+viewSection()

Author
-AutID : int
-AutName : String
-DeptName : String
-OrgName : String
-States : String
-Email : String
-DocID : int
+addAuthor()
+editAuthor()
+deleteAuthor()
+viewAuthor()

Figure 3.1 Class Diagram

3.4 Activity Diagram
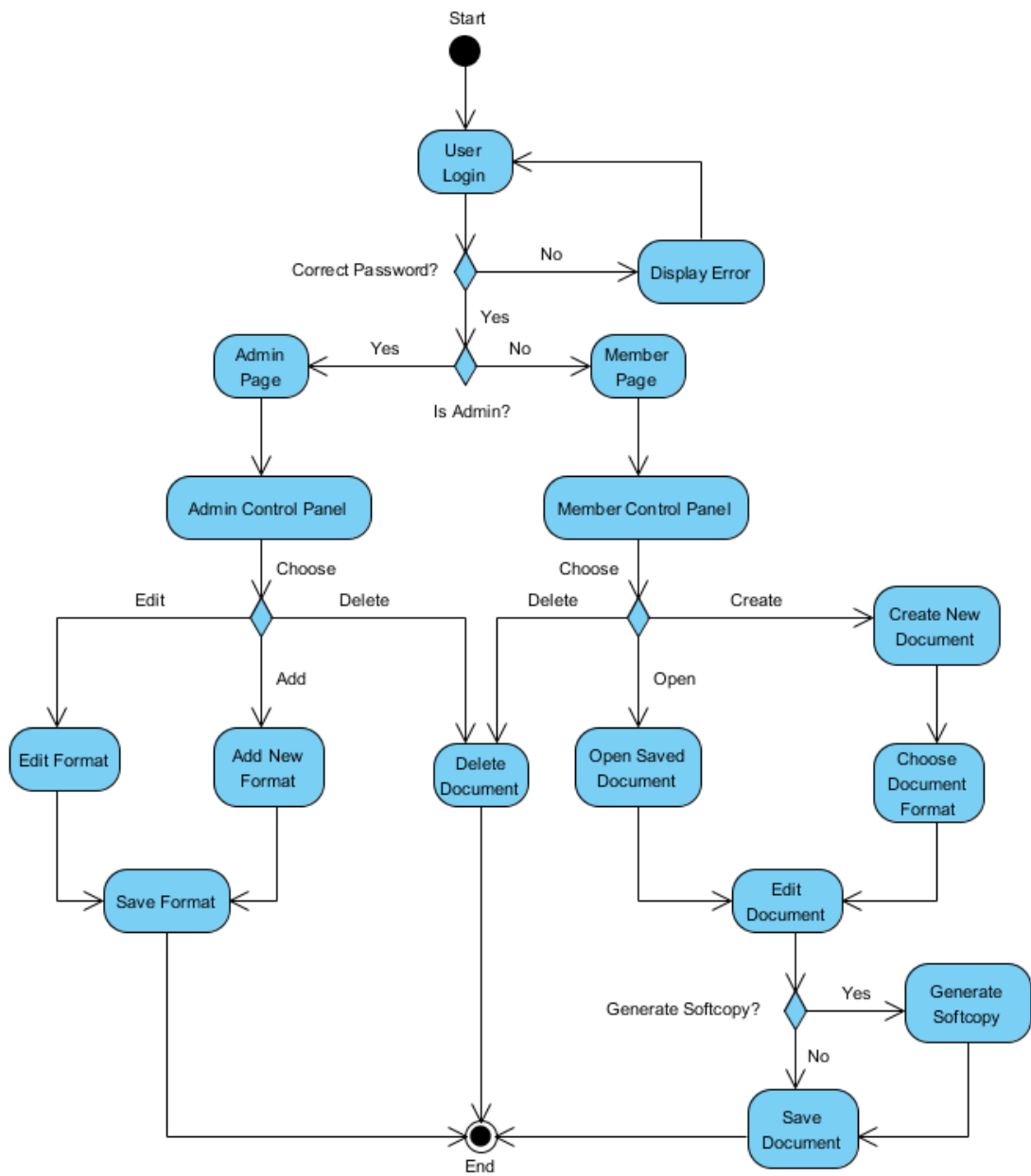
Figure 3.2 Activity Diagram

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3.5 Entity Relationship Diagram
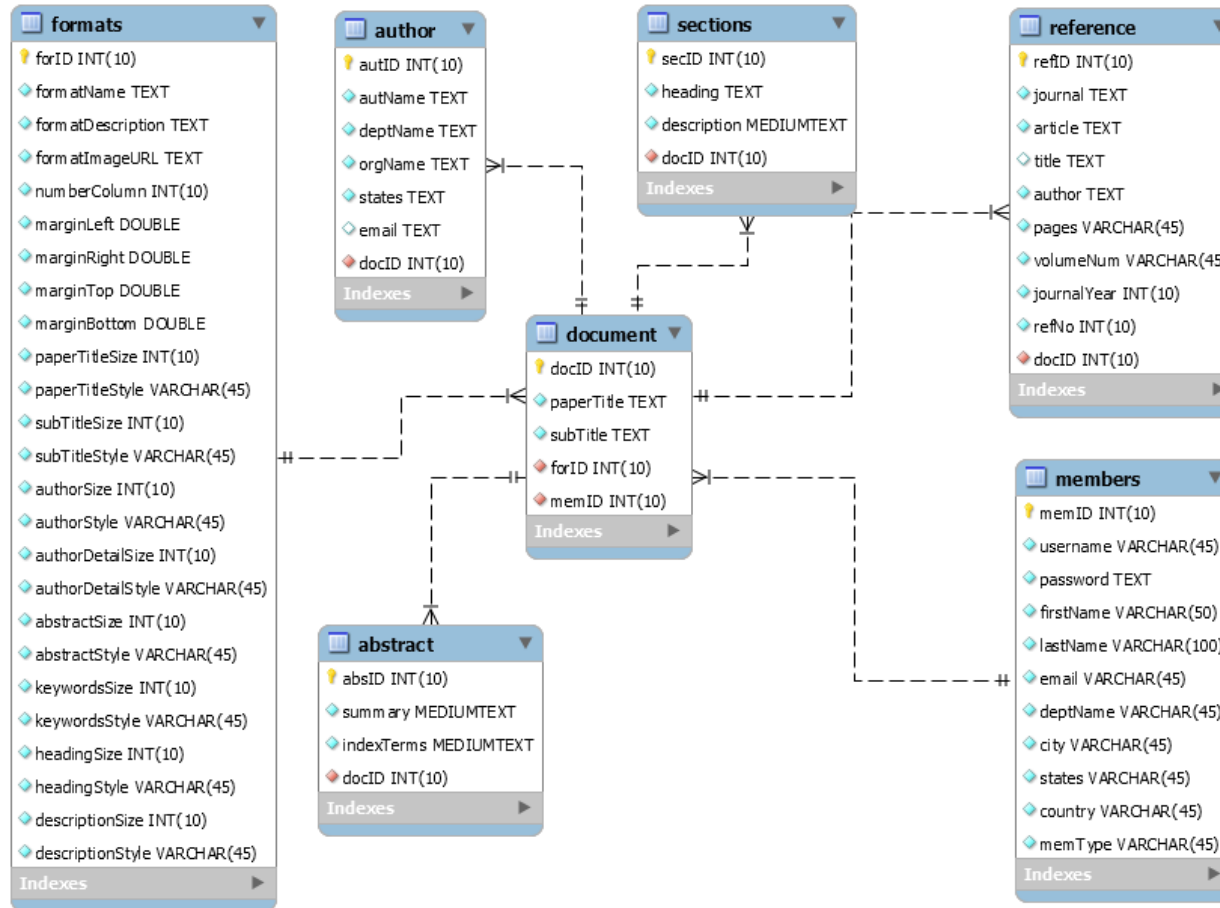
Figure 3.3 Entity Relationship Diagram

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Chapter 4 Methodology and Tools

4.1 Design Specifications

"The software methodology that is selected for developing Document Formatting Program is "Phased Development". This project adopts iterative development methodologies emphasized by Rapid Application Development (RAD) cycles. The Phased development methodology separates the overall system into a series of versions that are developed sequentially. The analysis phase identifies the whole system concept, and the project, and then categorizes the requirement into a series of versions. The most important and fundamental requirements are tie into the first system version. The analysis phase then go into design and implementation part, but only with a set of requirements identifies for version one. Once version one is implemented, the second version work will begin and follows the steps, and so on. In the same way, any additional feature or request during testing of the current or older version will be implemented in the next version. With this way the system gets in the hands of the users very quickly." (WSU, 2010)

There are list of reasons for a phased development approach. There are:

- Prioritizing the features ensures that the first version of system can be useful to who are using it. Not to all of them, perhaps. But it's usable. Mean that, the document formatting system at least can do the normal operation.

- This methodology approach makes budgets easier to do coordination, especially when you not complete yet a project like this before and aren't sure how extensive it will be. The system can gradually improve its weakness and any insufficient, so the budgets is easily to handle while anytime to develop the system.

- Once user is using the first versions of the program, priorities will change. A phased approach lets you and the developer adjust the features that need to be added. You can put the most time, attention and budget on the things that important portion.
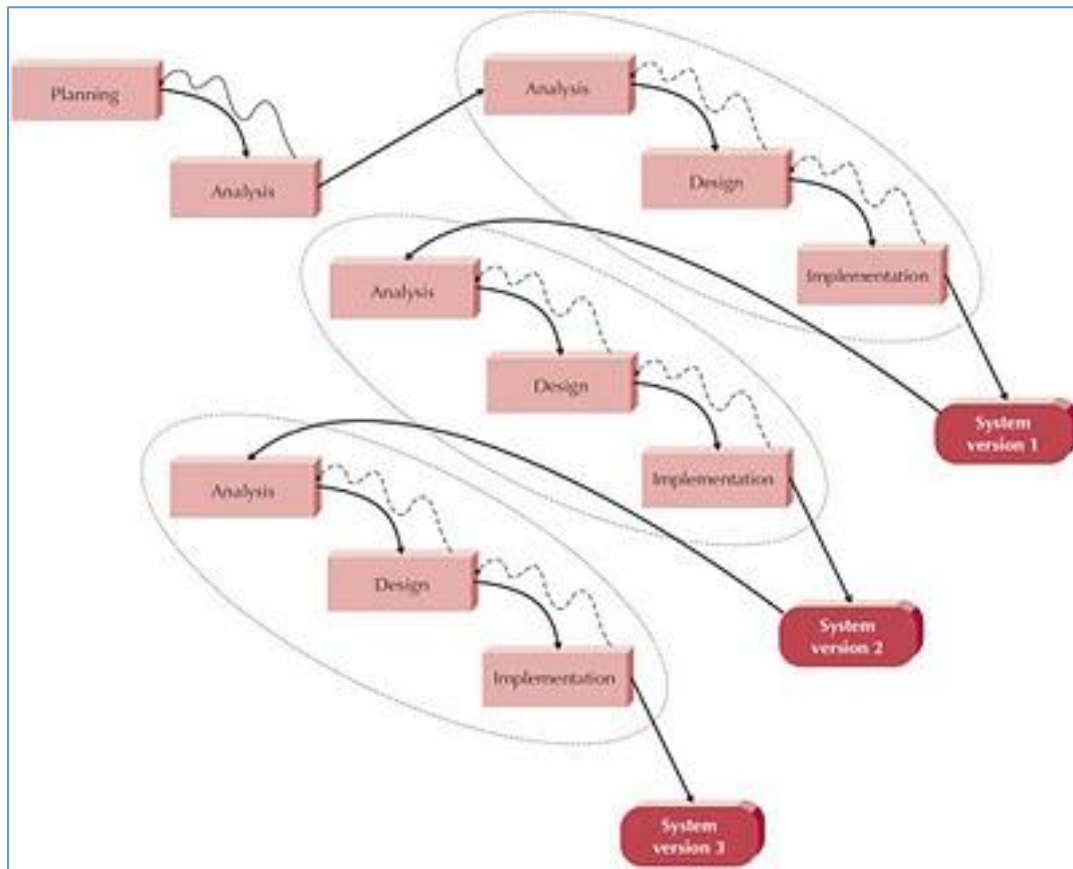
Phased Development Process

Figure 4.1 Phased Methodology

<u>Phase 1 – Planning/Preliminary Investigation</u>

The purpose of the preliminary investigation stage is to determine whether to pursue a system development project, and, if so, to perform the necessary preparatory work. In this phase a number of steps are taken. This phase is equivalent to planning phase of traditional SDLC.

<u>Phase 2 – Analysis</u>

This stage and the next two of design and preliminary construction are performed in a repeating manner. This idea of repeating phases is the main characteristic of the phased approach. The two main activities of the analysis stage include the analysis of the user's functional requirements, and the documentation of those requirements.

The following are the steps to be taken:

Step 1: Analyse Functional Requirements –

The system analyst is to analyse the existing system is studied for the purpose of understanding the functions that the new system must perform. A tool that facilitates this analysis is the functions/components matrix, which enables developer and user to view a system in terms of its required processes and resources.

Step 2: Document the Functional Requirements –

As the functional requirements of the new system are analysed, the developer creates written documentation in the form of narrative notes and graphic diagrams. The documentation is not merely the recording of the results of the analysis. Rather, the documentation facilitates the analysis. The two activities go hand-in-hand. The process of preparing the documentation enables the developer to synthesize the results of the analysis to form a well-ordered set of requirements.

A work plan which includes the project's Gantt chart and Network Diagram is developed. Then, a system proposal is generated and shown to management to verify. Next, a feasibility analysis is conducted based on all user requirements collected from the users among the developer in order to identify the software requirements, hardware requirements, breakeven point in the break even analysis, and check whether the proposed system will meet the organization's mission, vision, and objectives.

After that, all analysis is completed and produces a prototype of system proposal for others to view and discuss. If there are any changes requested by the customer, a system proposal will be modify again. After the system proposal is modify, a there will be generated to list out all system requirements. Finally, a meeting is conducted to generate the first report and discuss about the tasks or modules need to be finished for the first cycle among the developer.

<u>Phase 3 - Design</u>

At this point, the system developer and user will understand the existing system and are ready to design a new, improved system. Based on the phased development, the system will be developing in version by version. The first version is design about the Book Manager Module, second version will design about the patrons management

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module, third version is design regarding Loan Management Module and last version is design regarding Book Reservation Module with integrates all modules in one working system.

There are three main activities that occur in the design stage: the first two involve design and the third is related to documentation.

Step 1: Design New System Components –

The developer designs the new system inputs, outputs, and specifies the processing to be performed by the hardware and software. When designing the inputs and outputs, special attention is given to user navigation. Since the system is expected to produce some type of outputs for the user, attention can first be given to that function. With the outputs specified, attention can then turn to processing, storage, and input. The functions therefore evolve based on the outputs.

Step 2: Design Interfaces with Other Systems –

The system being designed will invariably interface with other systems. With the system functions designed, these linkages are then added.

Step 3: Document the New Design System –

The new system design is documented in terms of its processes, and perhaps objects. When a process-oriented approach is taken, the process model includes the data flow diagrams, structured English, and other tools as required. When object-oriented approach is taken, the object model includes such diagrams as class diagrams, and sequence diagrams.

<u>Phase 4 – Implementation</u>

At this phased, the system developer is ready to program the modules of the library system. The new system modular design now exists in the form of some combination of models. The next step is to convert these models to a production system consisting of hardware, software, and data. This conversion is accomplished in the preliminary construction stage. At the end of this stage a production system module exists that can be subjected to user review.

Step 1: Construct New System Software Modules and Testing –

Regardless of how the software is obtained, test data is prepared to subject the new software to thorough tests to ensure that it will meet the user's needs.

Step 2: Demonstrate to User –

The new version of the system will be demonstrated to its intended user. When the users are not completely satisfied with the demonstration, they specify what have to be done in order to make the module acceptable. In that case, the analysis, design, and preliminary construction stages are repeated. This repeating continues until the user approves the design of each module as demonstrated. The developer can then proceed with the final construction.

Phase 5 – System Version

During final construction, all of the modules of the new system are assembled and made ready for installation. Two major points concerning final construction need to be pointed out. First, the iterative analysis, design, and preliminary construction phases for each module prior to final construction need to be addressed. Each module is documented with a functional delivery to the user. Second, how the five construction activities span the SDLC stages need to be demonstrated. For example, the activity of planning and administering the education program begins prior to final construction and continues through system test and installation.

Phase 6 - System Test and Installation

During this phase, each time of the module is completed by developer, and will perform the software testing to testing the module. After the testing, development will conduct a meeting for discuss and gather feedback from current system and prepare the next module.

After the process of integrate system modules, the new system is almost ready for installation. Before that occurs, a final system test is required. Installation occurs and then user feedback is obtained to verify acceptability.

Step 1: Design and Perform the System Testing –

The testing performed up to this point has consisted of tests to ensure that the hardware and software components function as specified. The purpose of the system test is to ensure that the complete system will perform satisfactorily once it is turned over to the users.

Step 2: Installing Components –

Installation of the new system involves replacing the components of the existing system with those of the new one. The user begins performing the procedures of the new system.

Step 3: Conduct a User Acceptance Testing –

The system developer and the user conduct one or more reviews for the purpose of ensuring that the new system meets its objectives and satisfy the performance criteria.

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Chapter 5 Design plan and testing

5.1 Frontend and Backend Design
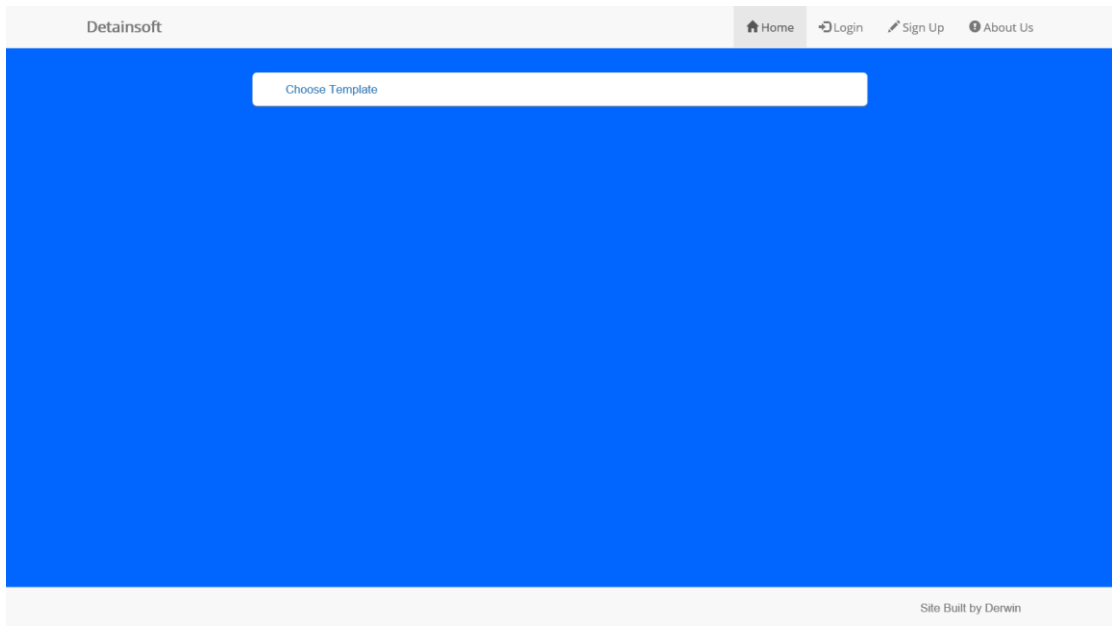
Figure 5.1.1 Home Page
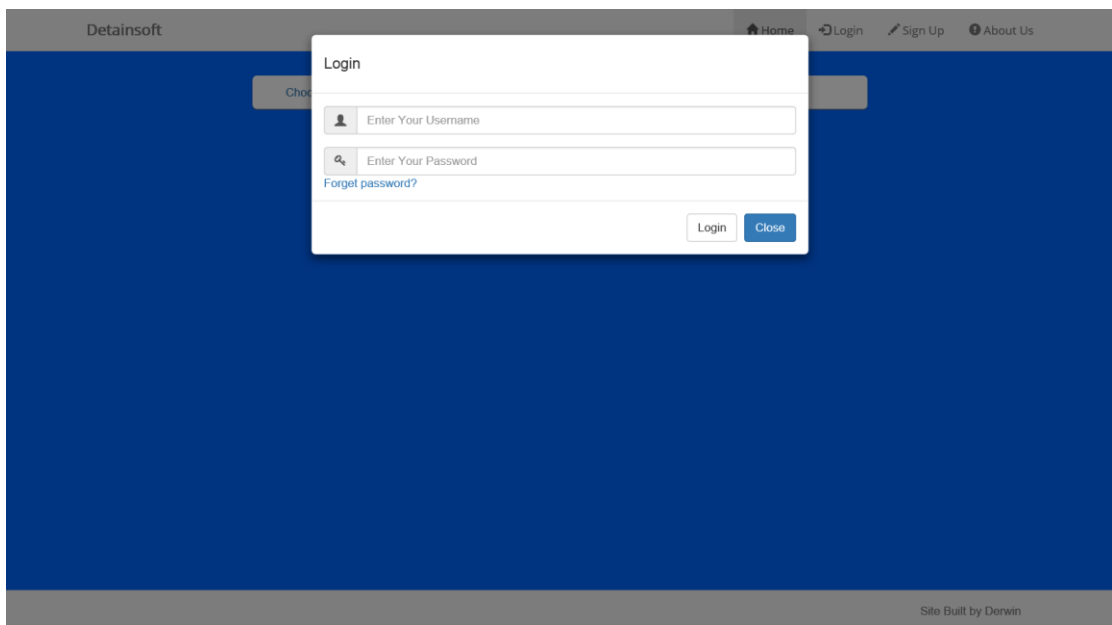
Figure 5.1.2 Login

For figure 5.1.2, user are able to login using the login panel.

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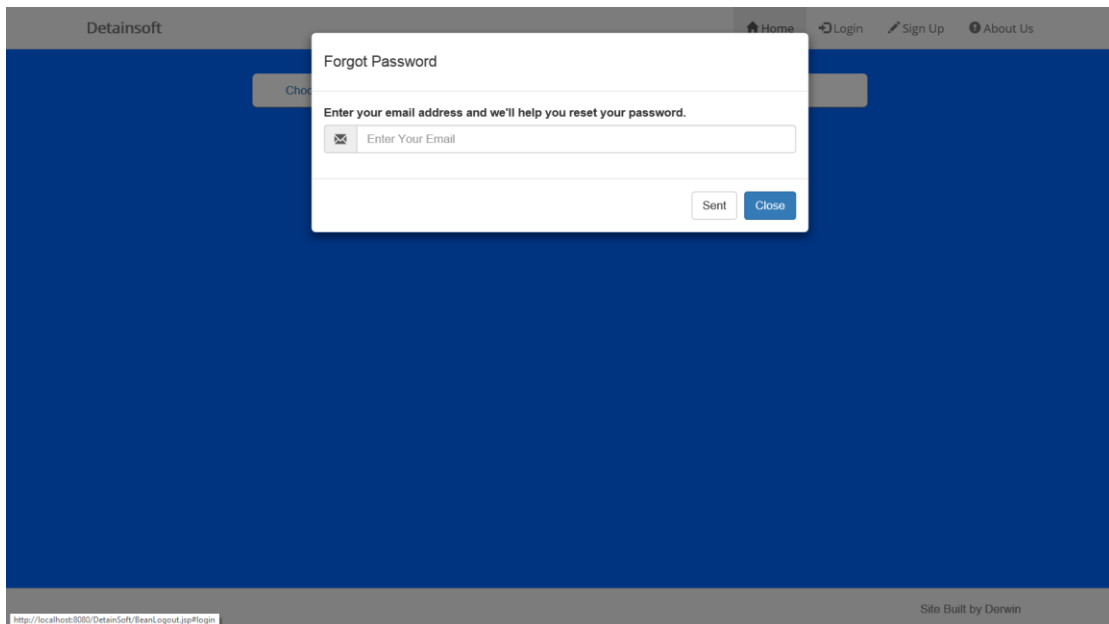
Figure 5.1.3 Forgot Password

For Figure 5.1.3, when user forgot their password, the user are able to key in their email address to get password reset. The system will sent a random generate password to user through email.
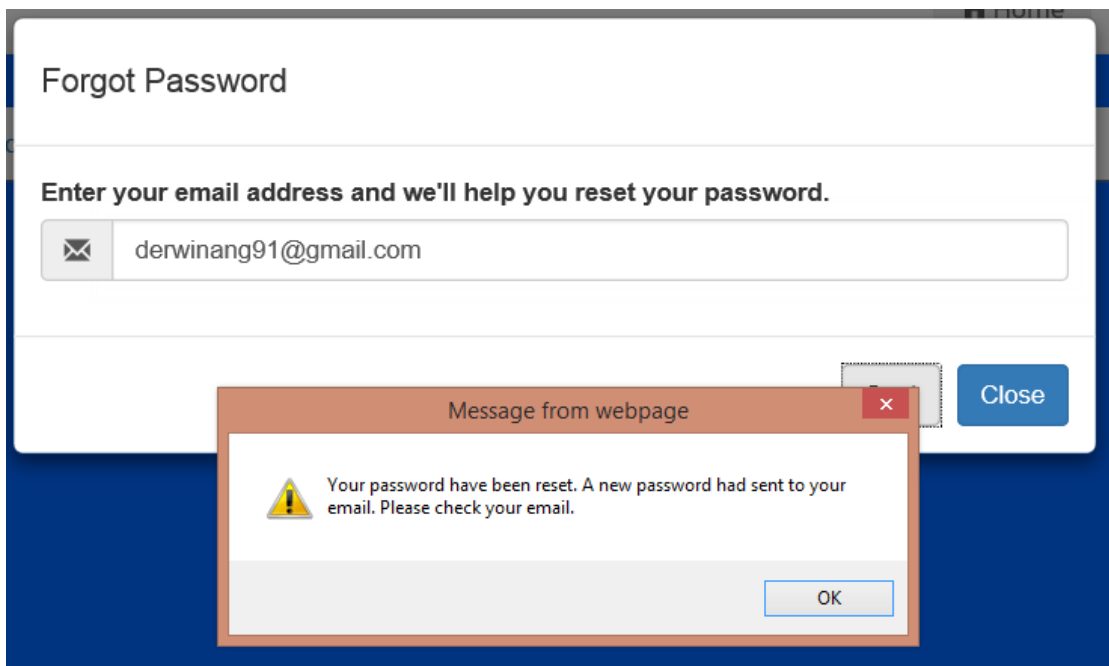
Figure 5.1.3.1 Password Reset Success

After the user had enter their email, the system will auto reset their password and prompt a message that tell the user that the password had been reset.

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derwinwolf@gmail.com   Thu, 2 Apr 5:56 PM
to derwinang91@gmail.com

New Password (This is a system generated email. Please do not reply to it.)

Your new password is sNjgycNCyU.
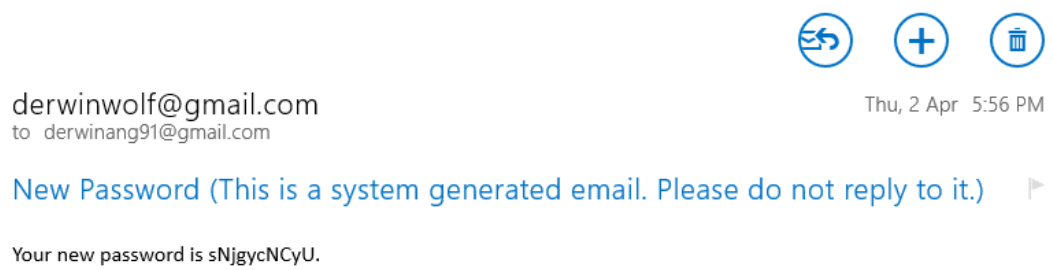
Figure 5.1.3.2 New Password

The new password will sent to the user email address as show in figure 5.1.3.2.
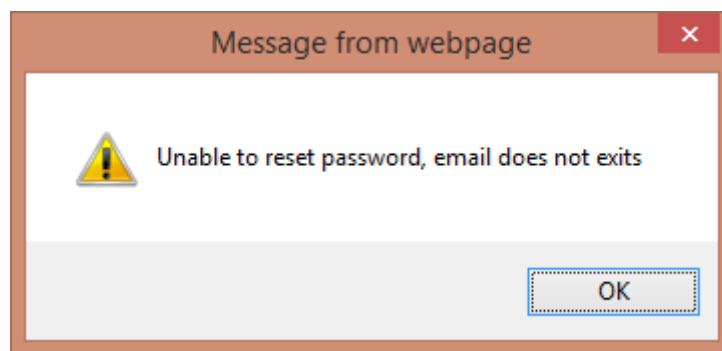
Figure 5.1.3.3 Email Not Exits

If the email address does not exist, the message will prompt out as show in figure 5.1.3.3.
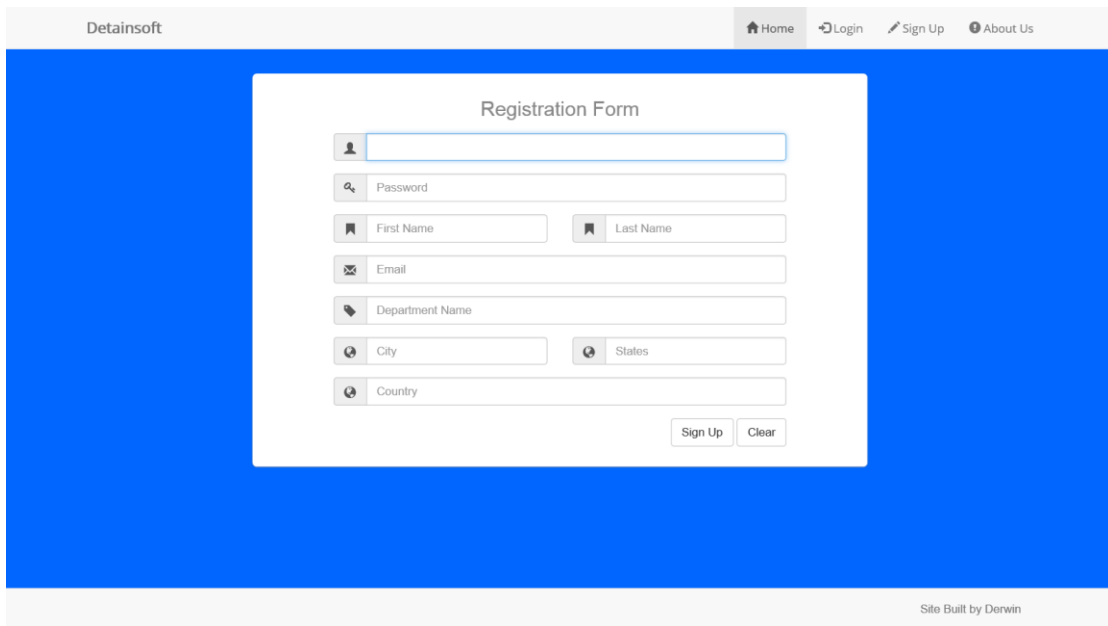
Figure 5.1.4 Register Form

Figure 5.1.4 is a register webpage. For those new comer, there are allow to register into this website to get access to the template given. It is because non-member are unable to use the template given. Error will show up when user is not yet login and try to access to the template. Error is show in figure 5.1.4.1.
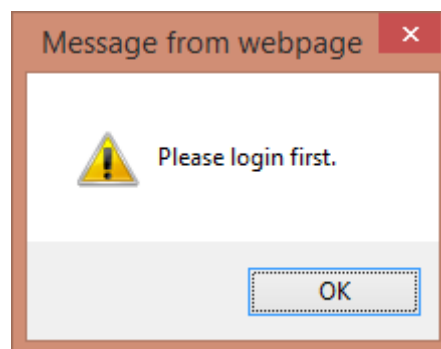
Figure 5.1.4.1 Error, Login First

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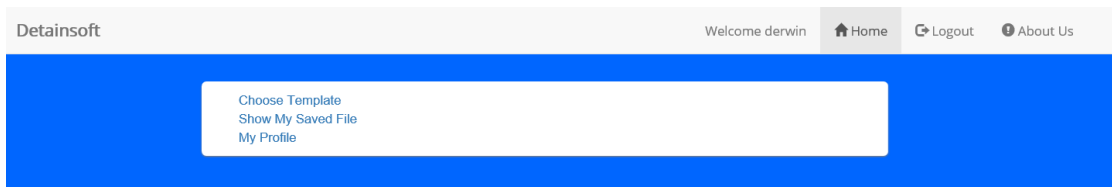
Figure 5.1.5 Author Panel

For figure 5.1.5, author are able to pick the action author wish to such as Choose Template, Show My Saved File and My Profile.
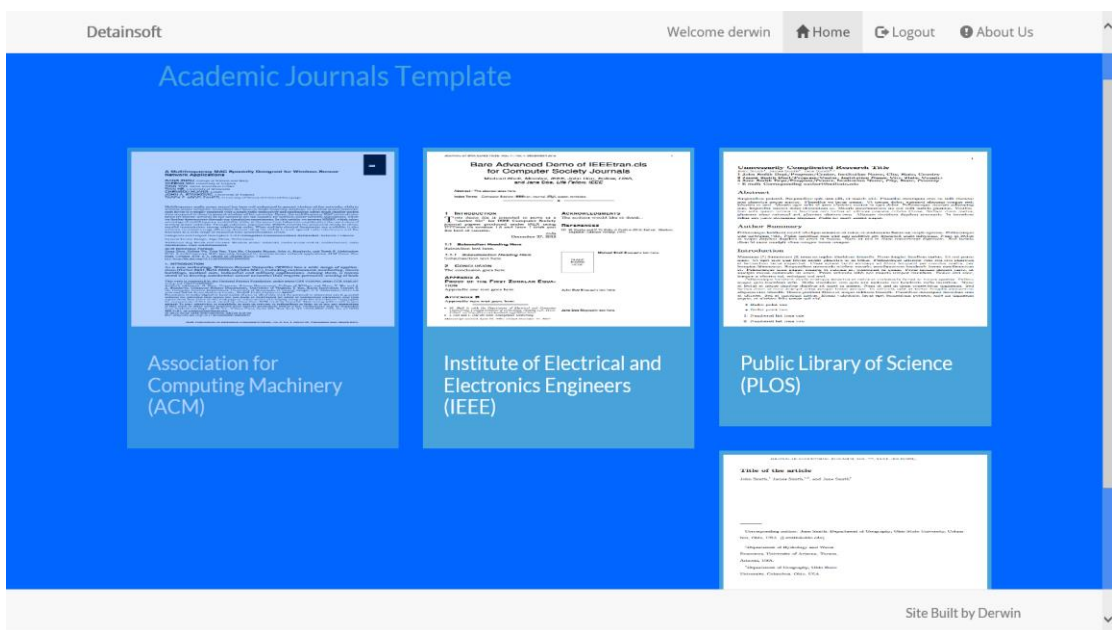
Figure 5.1.6 Choose Template

After author pick Choose Template, the webpage show as Figure 5.1.6 will be loaded. In here, all the template will show with image and template name show.

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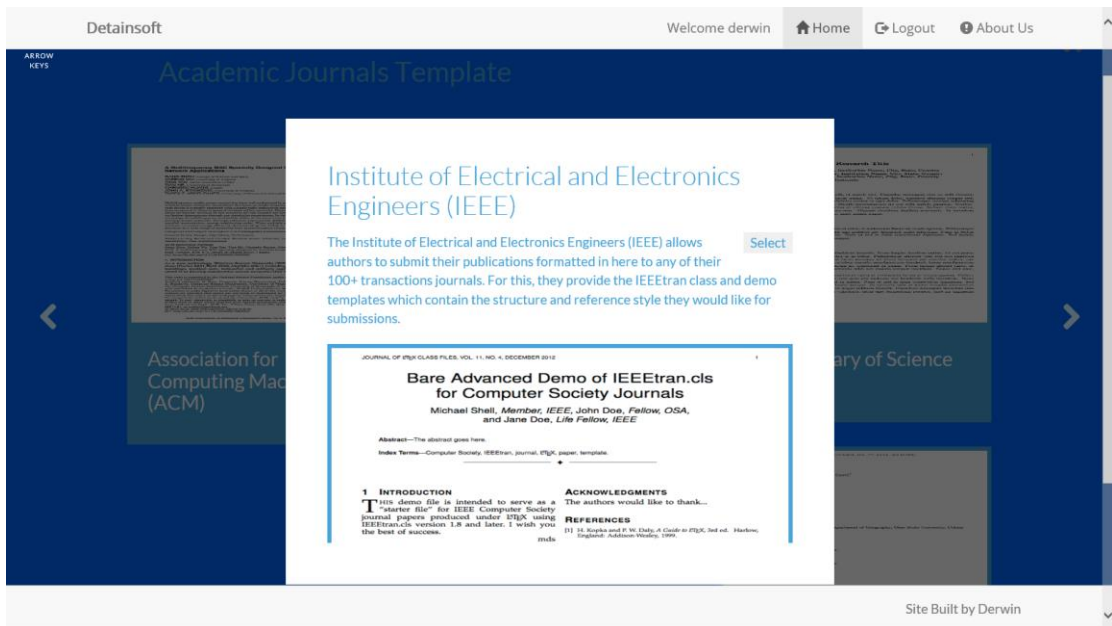
Figure 5.1.7 Chosen Template

When the author click a template, a new frame will show up with more detail explanation of the template. Author able to use it by click the "Select" button.

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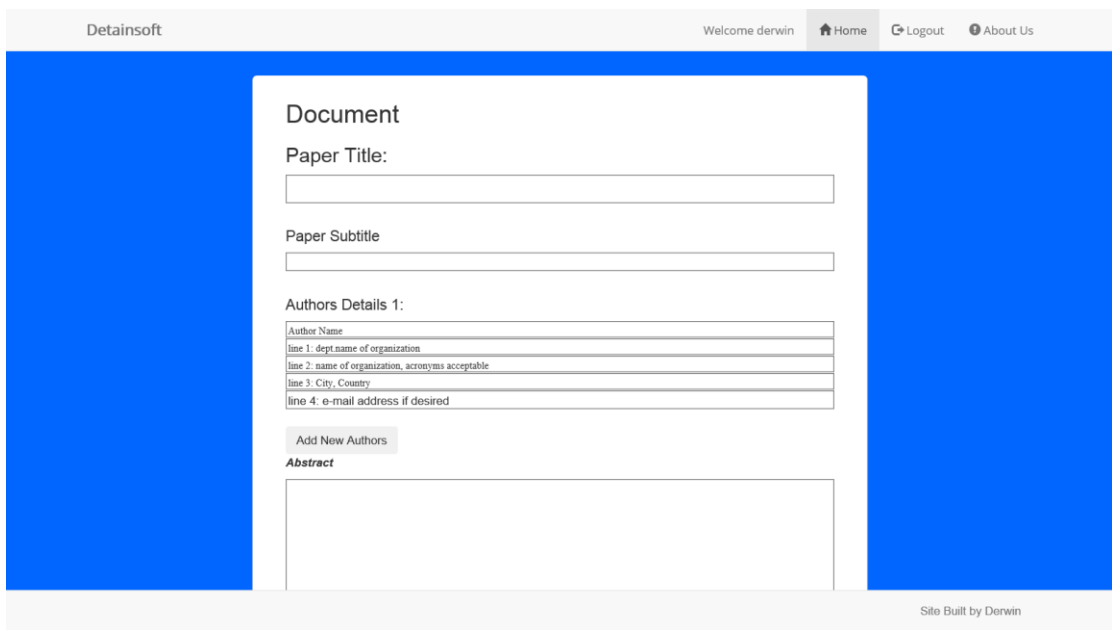
Figure 5.1.8.1 Document Part 1
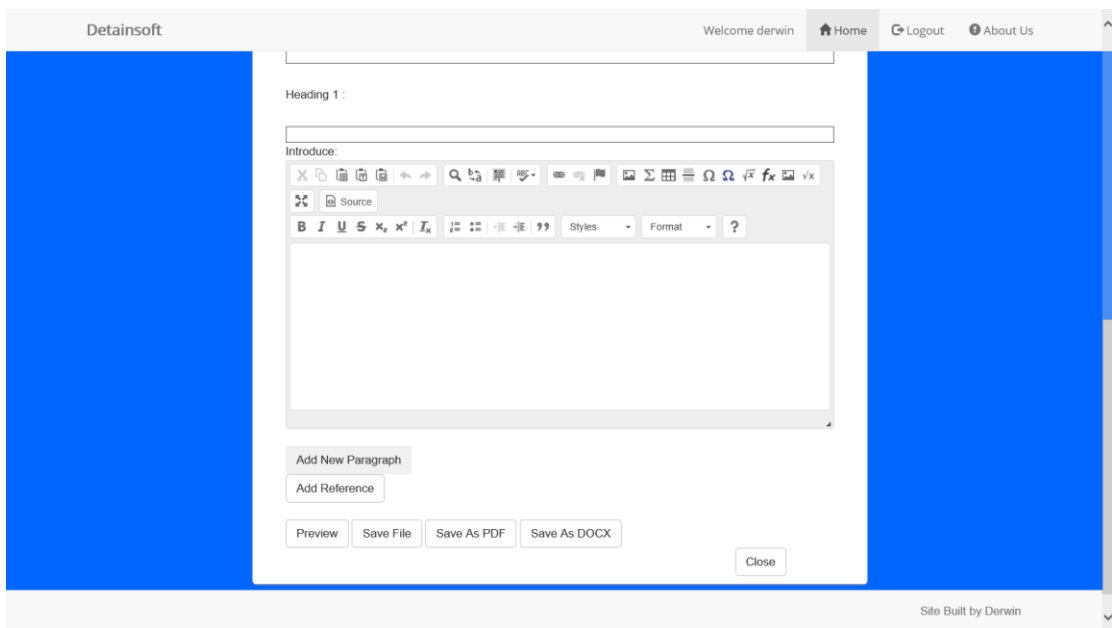
Figure 5.1.8.2 Document Part 2

After "Select" button is click, the Document webpage will be loaded as show in figure 5.1.8.1 and figure 5.1.8.2. In here, the author just need to fill in all the necessary thing that required to fill in. Author are able to add new author, if the author partnership with others author. And author are able add more section or remove section if unused section is added.

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Figure 5.1.8.3 Author Detail

In figure 5.1.8.3, user are able to add new author or remove author if the user accidently press the button for add new author. If there is only left one author the remove button will be hidden so that the user will not remove all the section left nothing there.

Figure 5.1.8.4 Section

In figure 5.1.8.4, user are able to add or remove section, if there is only left one section the remove button will be hidden so that the user will not remove all the section left nothing there.
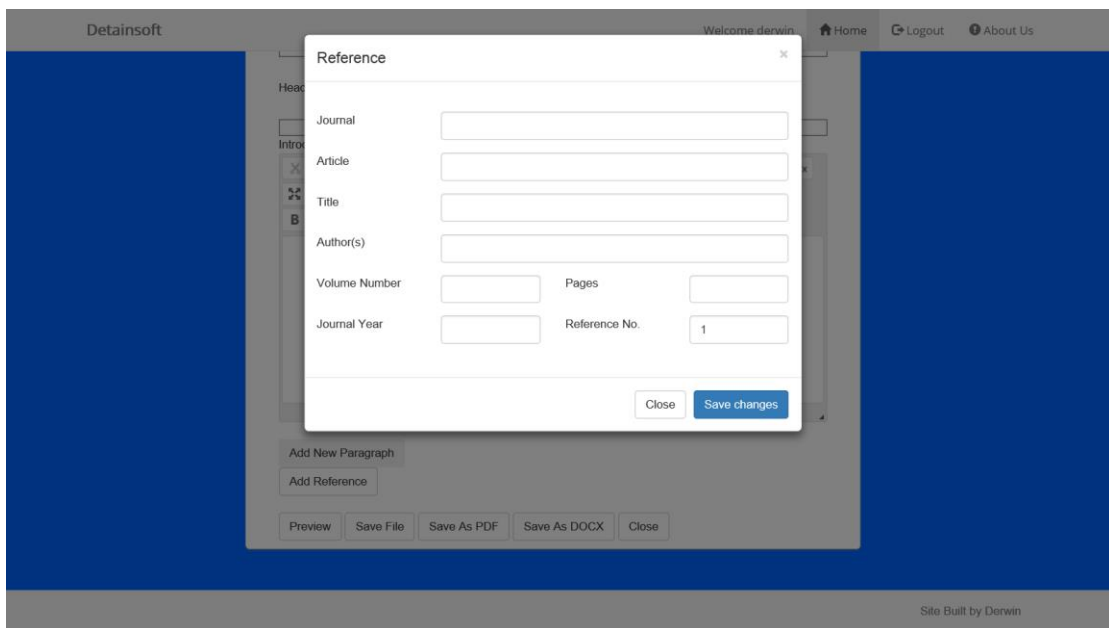
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Figure 5.1.9 Add Reference

Here, author able to add reference by key in necessary information and the reference format will auto generate to the author. Such as the following image in figure 5.1.9.1. The reference no will be auto generate and auto increment.
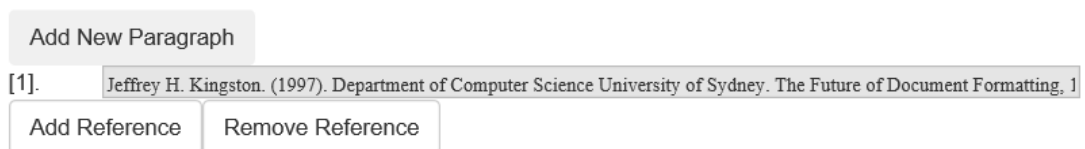

Figure 5.1.9.1 References

After references is added, it will auto convert to APA referencing style and display at as in the figure 5.1.9.1, the remove reference will be shown for user to remove the referencing at the bottom one.
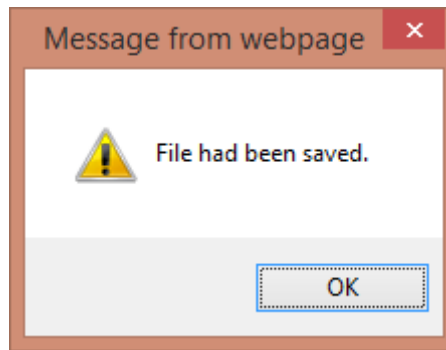
Figure 5.1.9.2 Alert Success Save PDF

When the user press the button for Saved As PDF, the alert message as show in figure 5.1.9.2 will be prompt out that tell user that the file had been saved. And the file will be save in the user local drive Desktop.
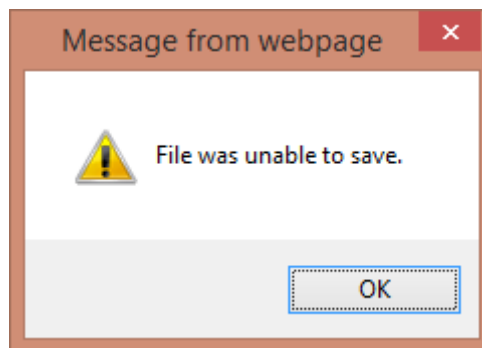

Figure 5.1.9.3 Alert Fail to Save PDF

If the system unable to save it into PDF, the alert message as show in figure 5.1.9.3 will prompt out to tell user that the file is not able to save.

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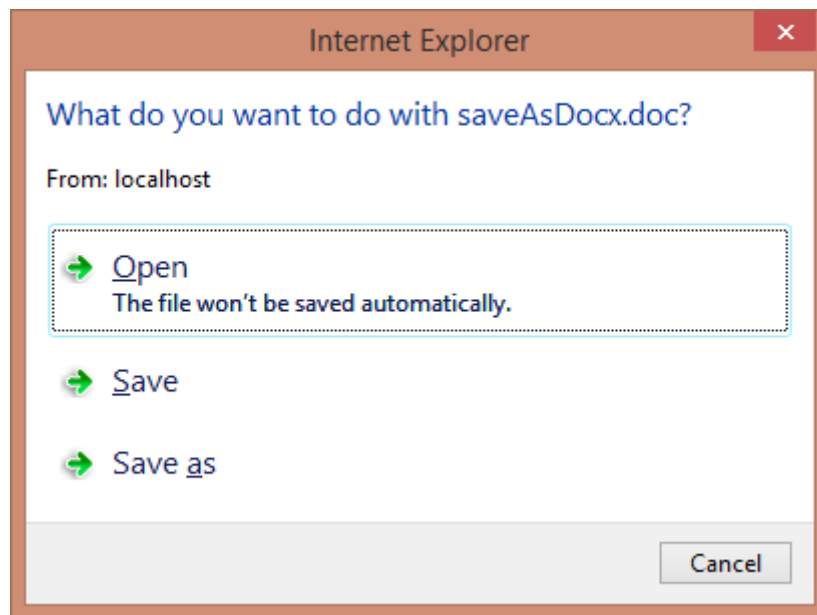
Figure 5.1.9.4 Save as Docx

When user press the button Saved As DOCX, the frame show as in figure 5.1.9.4 will be prompt out to let user choose the action.

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Figure 5.2.0 Author's Saved File

In figure 5.2.0, all the file that had been save by the author will list out view in webpage. Author able to edit the document or delete it.

Figure 5.2.1 View in HTML (IEEE)

In Figure 5.1.8.1 show as the above, there is a Preview button, when user click it, this page as show in figure 5.2.1 will load. User able to preview the document that had done in the template they had choose. Figure 5.2.1 is the preview for the template Institute of Electrical and Electronics Engineers (IEEE).

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Figure 5.2.1.1 Print Function

When the print button in the figure 5.2.1 is click, the frame that show in the figure 5.2.1.1 will be pop up. User able to print it or straight away convert it to PDF file.
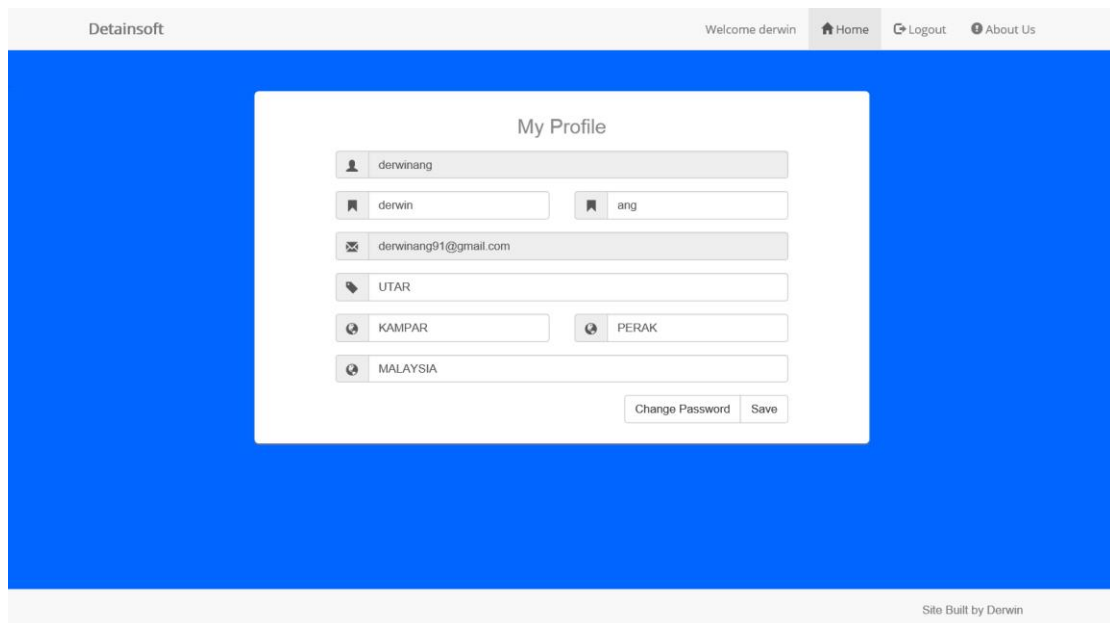
Figure 5.2.2 Member Profile

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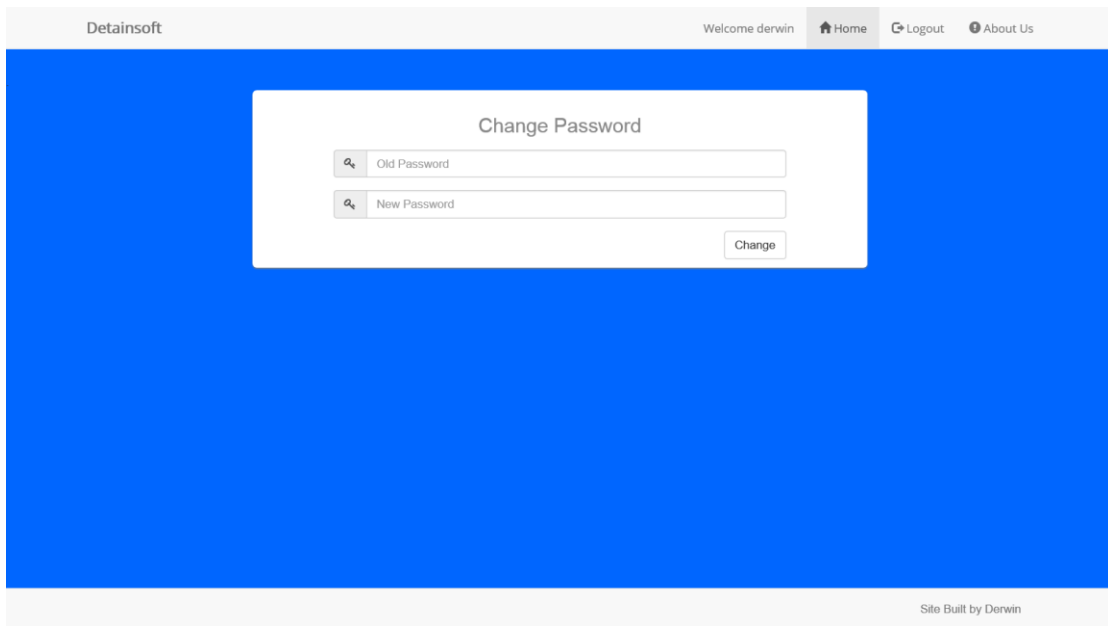
Figure 5.2.3 Change Password

In figure 5.2.2, user able to change the profile information and in figure 5.2.3 user able to change the password.

Figure 5.2.4 Logout

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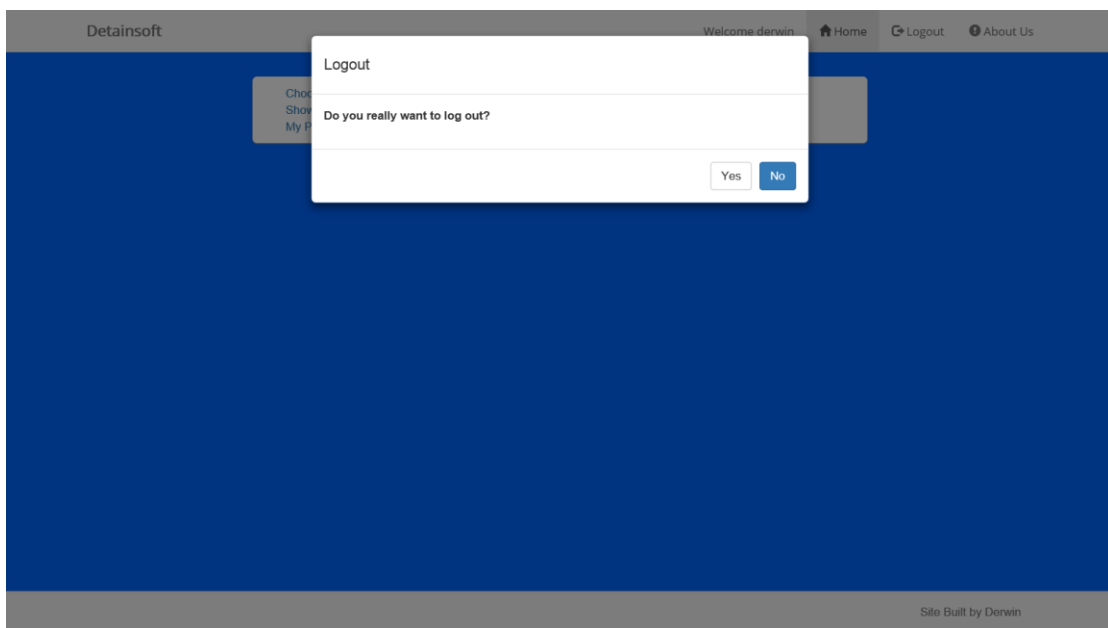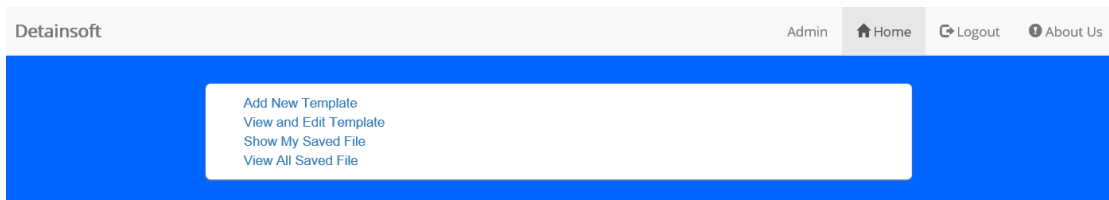
Figure 5.2.5 Admin Panel

For figure 5.2.5, admin are able to pick the action admin wish to such as Add New Template, View and Edit Template, Show My Saved File and View All Saved File.
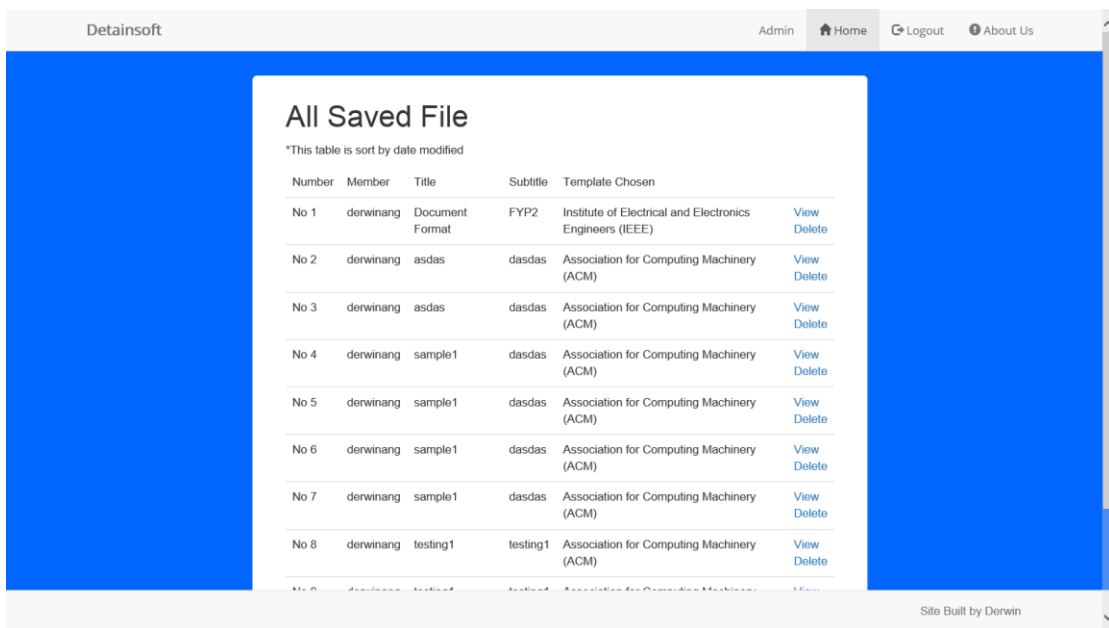
Figure 5.2.6 View All Saved File

In figure 5.2.6, admin able to view all the saved file that store in the database. Admin had the right to delete any member's document if it had violate the rule.

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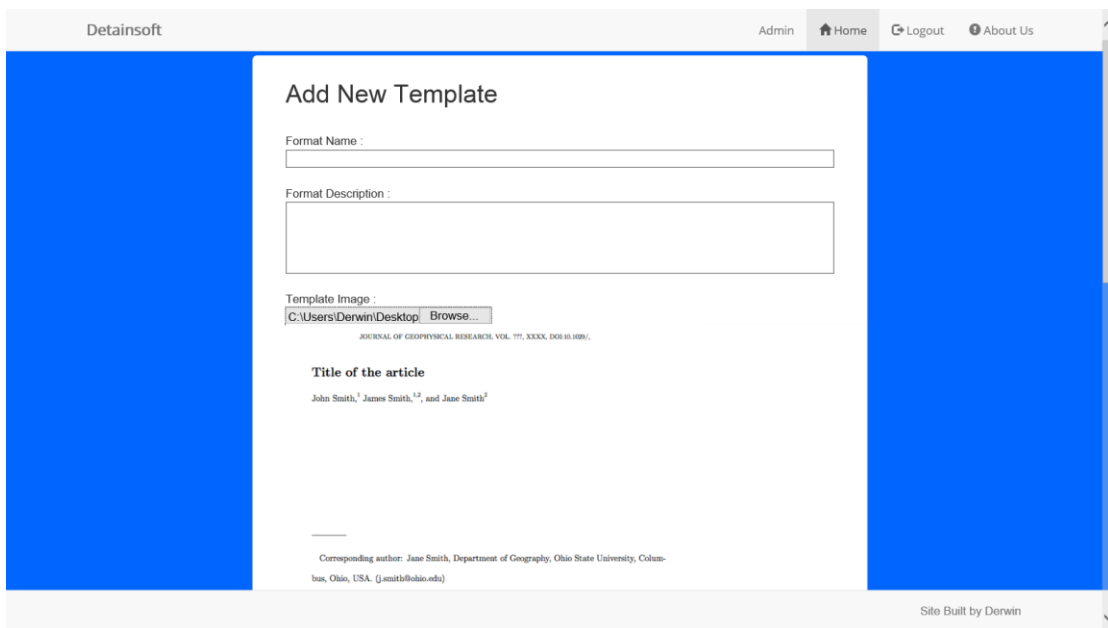
Figure 5.2.7.1 Add New Template Part 1
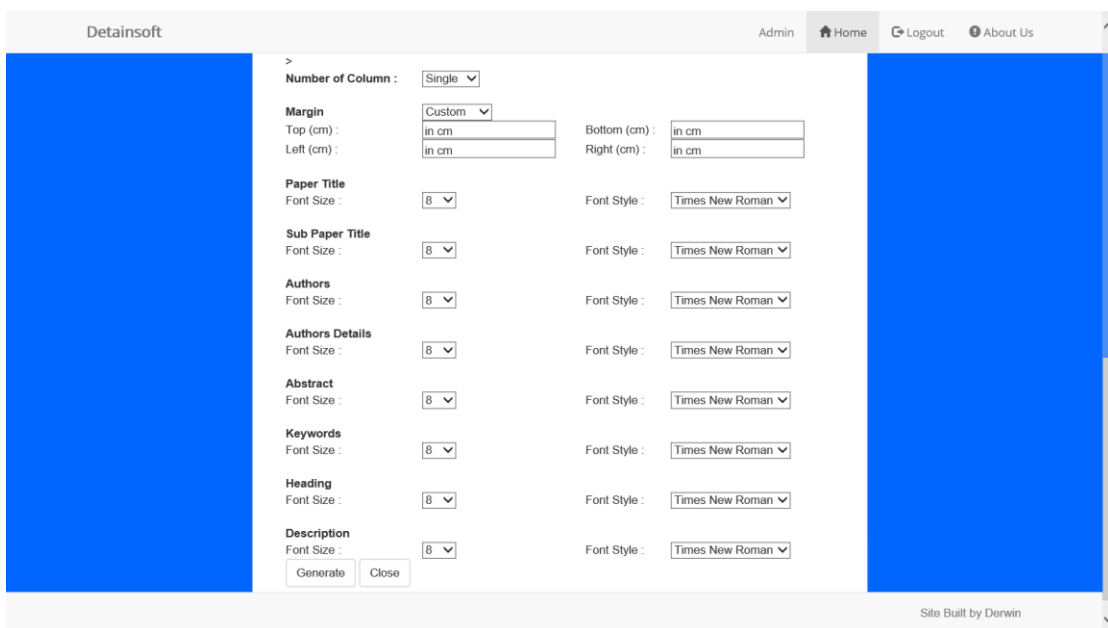
Figure 5.2.7.2 Add New Template Part 2

In figure 5.2.7.1 and 5.2.7.2, admin able to add new template for user to use. In figure 5.2.7.1 admin able to choose one sample image for the template to upload to the server, so that user able to view the sample image for the template before choosing it.

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Figure 5.2.8 About Us

BIS (Hons) Information Systems Engineering
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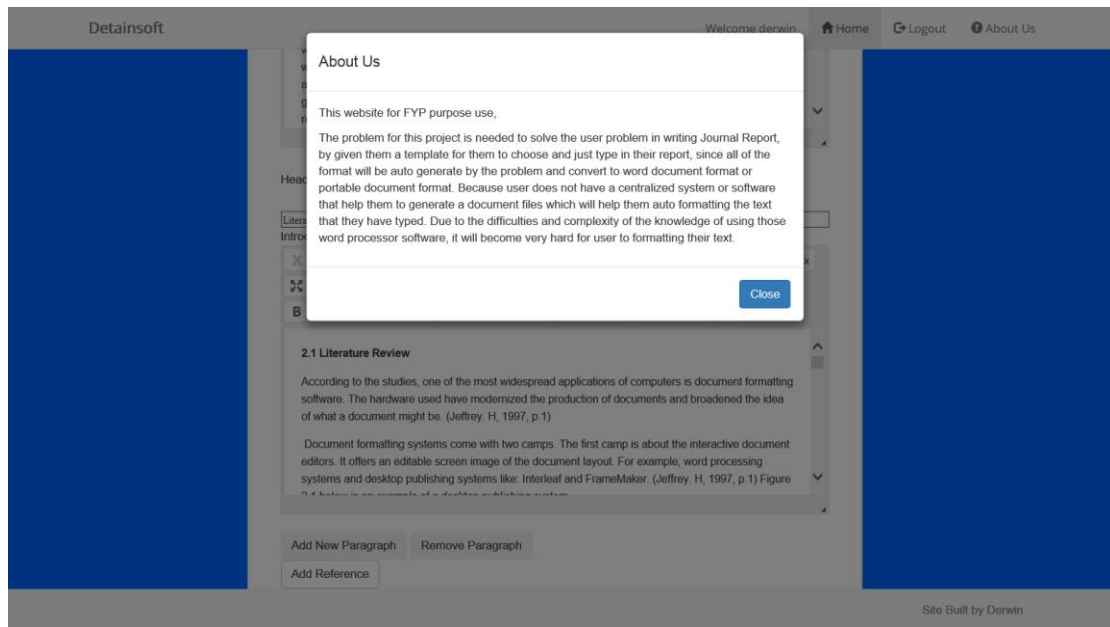
5.2 Test Case

Test Case Module: Login Page

Test Case Code: LG

Test Priority: MED

Description: Test the login function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
LG001	1. Open login page.	Login frame pop up.	Login frame pop up.	Pass
LG002	1. Enter the correct username and password. Click Login.	The system will allows the user to login with the correct username and password.	The system allow user to login and navigate the user to user panel.	Pass
LG003	1. Enter the correct username and wrong password. Click Login.	The system will pop up error message.	The system will pop up error message wrong username or password and navigate user back to preview page.	Pass
	2. Enter the wrong username and correct password. Click Login.	The system will pop up error message.	The system will pop up error message wrong username or password and navigate user back to preview page.	Pass
	3. Enter wrong username and password. Click Login.	The system will pop up error message.	The system will pop up error message wrong username or password and navigate user back to preview page.	Pass

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Test Case Module: Forgot Password Page

Test Case Code: FP

Test Priority: MED

Description: Test the reset password function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
FP001	1. Open forgot password page	Forgot password frame will pop up	The login frame will be close and forgot password frame will pop up.	Pass
FP002	1. Enter correct email address. Click Sent.	User password will be reset.	User password will be reset and sent the new password to user email.	Pass
FP003	1. Enter wrong email address. Click Sent.	The system will pop up error message.	The system will pop up error message tell the user the email does not exist.	Pass
FP004	1. Enter invalid email address. Click Sent.	The system will pop up error message.	The system will highlight the text field and tell user must enter a valid email address.	Pass

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Test Case Module: Register Page

Test Case Code: RG

Test Priority: MED

Description: Test the register function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
RG001	1. Click Sign Up button.	User will navigate to register page.	User will link to register page that require user to key in necessary information such as Username, Password, First Name, Last Name, Email, Department Name, City, States, Country.	Pass
RG002	1. Enter valid information. Click Sign Up.	User successful register.	All user information will be store in database and user will navigate back to main page.	Pass
RG003	1. Enter duplicate username. Click Sign Up.	Error message will prompt up.	The system will pop up an error message that tell user. that username or email had been used.	Pass
RG004	1. Enter duplicate email. Click Sign Up.	Error message will prompt up.	The system will pop up an error message that tell user that username or email had been used.	Pass
RG005	1. Enter symbol in Password field. Click Sign Up.	Error message will prompt up.	The system will highlighted the Password field and tell user to enter correct format.	Pass

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	2. Enter number or symbol in First Name field. Click Sign Up.	Error message will prompt up	The system will highlighted the First Name field and tell user to enter correct format.	Pass
	3. Enter number or symbol in Last Name field. Click Sign Up.	Error message will prompt up.	The system will highlighted the Last Name field and tell user to enter correct format.	Pass
	4. Enter invalid email in Email field. Click Sign Up.	Error message will prompt up.	The system will highlighted the Email field and tell user to enter correct format.	Pass
	5. Enter number or symbol in City field. Click Sign Up.	Error message will prompt up.	The system will highlighted the City field and tell user to enter correct format.	Pass
	6. Enter number or symbol in States field. Click Sign Up.	Error message will prompt up.	The system will highlighted the States field and tell user to enter correct format.	Pass
	7. Enter number or symbol in Country field. Click Sign Up.	Error message will prompt up.	The system will highlighted the Country field and tell user to enter correct format.	Pass

Test Case Module: New Document Page

Test Case Code: DC

Test Priority: MED

Description: Test the document function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
DC001	1. User pick new template without login.	Error message will prompt up.	The system will pop up an error message to warn user to login first, and navigate user back to preview page.	Pass
	2. User pick new template after login	User will navigate to document page.	User will navigate to new document page that allow user to use the template.	Pass
DC002	1. User press add new authors.	A new frame will show up.	A new author frame will show up and remove author button will also show up.	Pass
	2. User press remove authors.	A bottom frame for author will removed.	A last author frame will be removed.	Pass
	3. Only one author frame left.	A removed button will be removed.	A removed author button will be removed to prevent user to remove all authors.	Pass
DC003	1. User press add new paragraph.	A new frame will show up.	A new paragraph frame will show up and remove paragraph button will also show up.	Pass
	2. User press remove paragraph.	A bottom frame for author will removed.	A last paragraph frame will be removed.	Pass

	3. Only one paragraph frame left.	A removed button will be removed.	A removed paragraph button will be removed to prevent user to remove all paragraph.	Pass
DC004	4. User press add new reference.	A new frame will show up.	A new reference frame will show up and remove reference button will also show up.	Pass
	5. User press remove reference.	A bottom frame for reference will removed.	A last reference frame will be removed.	Pass
	6. No reference frame left.	A removed button will be removed.	A removed reference button will be removed because there is no more references to remove.	Pass
DC005	1. Preview button is press.	The document will preview in HTML page.	The new windows or tabs will pop up and preview all the works in the selected template to let user to view and print.	Pass
	2. Save File button is press.	The system will save the file.	The system will store all the works into the database.	Pass
	3. Second time press Save File button.	The system will edit the current file.	The system will store back the works into current database.	Pass
	4. Save As PDF button is press.	The system will store the works in PDF format.	The system will store the works in PDF format.	Pass
	5. Save As DOCX button is press.	The system will store the works in DOCX format.	The system will store the works in the DOCX format but not the image and IEEE style.	Fail

	6. Close button is press.	The system will close the page.	The system will navigate the user back to main page.	Pass

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Test Case Module: Reference Page

Test Case Code: RF

Test Priority: MED

Description: Test the add references function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
RF001	1. Add Reference button is press.	A new frame will pop up.	A reference frame will show up to let user key in necessary information.	Pass
RF002	1. Enter valid journal years. Click Submit.	Nothing will show.	The reference able to store in the webpage.	Pass
RF003	1. Enter invalid journal years. Click Submit.	Error message will show.	The system will pop up error message that tell user the journal years is invalid.	Pass

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Test Case Module: User Saved File Page

Test Case Code: SF

Test Priority: MED

Description: Test the list user saved file function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
SF001	1. User click show my saved file link.	Navigate user to show saved file page and list all the saved file.	Navigate user to show saved file page and list all the saved file with Edit and Delete function given.	Pass
SF002	1. User click edit button.	Load back the selected document.	Navigate user to document page with all the works user had saved.	Pass
	2. User click delete button.	Delete selected document.	The selected document will be deleted and navigate user back to show saved file page.	Pass

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Test Case Module: My Profile Page

Test Case Code: MP

Test Priority: MED

Description: Test the edit my profile function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
MP001	1. User click my profile link.	Navigate user to user profile.	Navigate user to user profile that allow user to view and edit the user info.	Pass
MP002	1. Enter valid information. Click Save.	User successful edit user profile.	All user information will be store in database and user will navigate back to main page.	Pass
MP003	1. Enter number or symbol in First Name field. Click Save.	Error message will prompt up	The system will highlighted the First Name field and tell user to enter correct format.	Pass
	2. Enter number or symbol in Last Name field. Click Save.	Error message will prompt up.	The system will highlighted the Last Name field and tell user to enter correct format.	Pass
	3. Enter number or symbol in City field. Click Save.	Error message will prompt up.	The system will highlighted the City field and tell user to enter correct format.	Pass
	4. Enter number or symbol in States field. Click Save.	Error message will prompt up.	The system will highlighted the States field and tell user to enter correct format.	Pass
	5. Enter number or symbol in	Error message will prompt up.	The system will highlighted the	Pass

	Country field. Click Save.		Country field and tell user to enter correct format.	

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Test Case Module: Change Password Page

Test Case Code: CP

Test Priority: MED

Description: Test the change password function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
CP001	1. Click the change password button	Navigate user to change password page.	Navigate user to change password page.	Pass
CP002	1. Enter correct old password and valid new password. Click Change.	Success change the password.	The user will successful change the password and navigate the user back to user panel.	Pass
CP003	1. Enter wrong old password and valid new password. Click Change.	Error message will show up.	The system will pop up an error message that tell the user the old password is mismatch.	Pass
	2. Enter correct old password and invalid new password. Click Change.	Error message will show up.	The system will highlighted the Password field and tell user to enter correct format.	Pass

Test Case Module: New Template Page

Test Case Code: NT

Test Priority: MED

Description: Test the add new template function

Test Case ID	Steps (Description)	Expected Results	Actual Results	Status
NT001	1. Admin click the new template link.	Navigate user to new template page.	Navigate admin to the new template that allow admin to create new template.	Pass
NT002	1. Key in necessary value. Click Generate.	New template will be saved.	The system will store the new template into the database. And navigate admin back to main page.	Pass

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Chapter 6 Limitation and Future Work

6.1 Limitation

The limitation of the <u>Saved as DOCX</u> is it not allow to store Institute of Electrical and Electronics Engineers (IEEE) format and the image into the Microsoft Word Document (DOCX).

The limitation of the <u>Saved as PDF</u> is it not allow to get the style of the image when store into the Portable Document Format (PDF).

The limitation of the <u>Add New Template</u> is admin only allow to add the template for the Academic Journals.

The limitation of the <u>Add New Template</u> is admin not allow to pick the spacing size before or after the paragraph.

The limitation of the <u>Reference</u> is only allow for APA Referencing Style.

The limitation of the <u>Remove</u> button for the document is only allow to remove the author, section or the reference of the bottom one. User unable to remove the selected author, section or the reference.

The limitation of the template style only work in the Internet Explorer Browser, other browser such as Google Chrome, Mozilla Firefox, Opera, and Safari will have some bug in running the template style.

6.2 Future Word

   In future, this system will implement more template such as for Articles, Assignment, Books, Cover Letters, Formal Letters and others. So that user are able to create more document using other template.

   Besides that, the reference will implement more referencing style for user to pick. So it easy for user to create document such as assignment that require the selected referencing that choose by the school.

   Furthermore, the add new template form will be modified to add in more choose for that will suit for other templates such as for Articles, Assignment, Books, Cover Letters, Formal Letters and others.

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Chapter 7 Conclusion

    The problem for this project is needed to solve the user problem in writing Journal Report for academic journal, by given them a template for them to choose and just type in their report, since all of the format will be auto generate by the program and convert portable document format (PDF), user also just covert to PDF or just view and print the document user had write. Because user does not have a centralized system or software that help them to generate a document files which will help them auto formatting the text that they have typed. Due to the difficulties and complexity of the knowledge of using those word processor software, it will become very hard for user to formatting their text.

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