

# **DepoSis: A Thesis Collection Repository for Mobile and Desktop**

**A Capstone Project**

**Presented to the Faculty of the  
Information and Communications Technology Program  
STI College Global City**

**In Partial Fulfillment  
of the Requirements for the Degree  
Bachelor of Science in Information Technology**

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**October 19, 2022**

## **APPROVAL SHEET**

This capstone project proposal titled: **DepoSis: A Thesis Collection Repository for Mobile and Desktop** prepared and submitted by **Ariel Jericko Gacilo, Carl Domingo, Danilo Domingo, and Steven Caboteja**, in partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology, has been examined and is recommended for acceptance and approval.

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in partial fulfillment of the requirements for the degree of  
Bachelor of Science in Information Technology

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**October 19, 2022**

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Desktop**

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**In Partial Fulfilment of the Requirements for the degree Bachelor of Science in  
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***STI College Global City***

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## INTRODUCTION

### Project Context

Thesis serves as one of the prerequisites for college students for them to graduate. It is crucial for them to search the thesis and dissertation literature to make sure that an idea or hypothesis has not already been tested, explored, and published. With this, they can have the opportunity to come up with new ideas or innovate finished projects or theses made by previous college students. College students are required to propose theses and studies as part of their curriculum. As such, they would appreciate easy access to past studies and articles to use as references.

In today's world, most people now rely on the internet and different applications to search for articles and literatures, and repositories play an important role in collecting, managing, and preserving these finished writings. Digital Repository may include research, copyrights, school records, finished works of previous students, legal documents, and many more. These kinds of systems are still in great demand to this day, especially for different companies that need databases for specific records or literature. Universities have a lot of important documents ranging from the student's thesis that have been submitted, their school records, up to the important documents of faculties. Digital repositories can improve their way of archiving documents since it can now be accessed not just from the hard copy of it but also through their soft copy.

Nowadays, students are having a hard time trying to find or think about how to start their thesis. This can be with the student's lack of knowledge and inspiration on the type of projects or thesis that has been made in the past, or they may not have enough experience in their field of course. Some students have a hard time searching for a sample project and if they ever got to find some results, the students may still end up confused and they must be reminded that it is easier to work on a project/thesis that can actually catch their interests or do something on what they are passionate about. With this, they can easily stay focused and exert themselves



at full potential. For students to have easier access to online libraries or repositories, a filtering and searching mechanism must be implemented onto the system since without this it can cause unorganized documents resulting in a hard time of navigating stored documents. User's reviews are also essential for knowing the rating of the finished literature, this can be considered as the basis for the student's choice of title for innovation, which can be seldom seen online. The student's physical copies of these written works are made available, but it has its limitations. For one, this type of copy can be damaged, either by age or by hazards (i.e., fire, vandalism, etc.) Another reason is that they are usually bulky, which may be cumbersome when transported to in large quantities. And as for the outdated ones, they just unnecessarily take space. However, with the help of technology, these problems are solved with the help of digital copies.

The developers have observed a lack of online depository dedicated to the works from STI College Global City. Thus, they have proposed to develop a system named DepoSis, an online thesis depository for digital copies of studies, proposals, and thesis of the students of STI College Global City. With just a few clicks, a user can easily have access to a digital copy of these literary works. They also have the option to read them offline by downloading them as portable document formats (PDF,) given that the website they are on allows them to do so. Websites such as Google Scholar provide access to legitimate articles and studies, filtering out other types of information that may be unfit or unreliable for a research paper. These documents may come in handy in the future and thus need to be preserved. With this kind of project, anyone can have a more efficient time in searching his/her needed documents since it has already been managed and arranged. Not only can this act as a database for the documents but can also serve as a backup file since it will be digital; the duplication of soft copies won't pose a problem.

## **Purpose and Description of the Project**

DepoSis is a cross platform repository application that covers the finished thesis of STI College Global City students from 2015 onwards. The application features a sorting and search mechanism that will give the user much easier navigation throughout the different stored thesis. The sorting can depend on the user's preference, through Name, Date, or the type of thesis the user wants to find out. With the help of a search bar, the user can also have an easy way of finding a specific type like web-based projects, mobile applications, game development or simply a title of a project as long as it exists within the repository. The thesis that will be shown are the finished document that has been approved by the school, the students can freely access the whole content of it as long as he/she is an enrolled student of STI College Global City with an account of Office365. This is to assure that STI College Global City faculties and students are the only ones allowed to access the application and its documents. It will also have a feature of user rating, the user can have the freedom to rate a thesis from 1 to 5 and can also leave a public comment. Ratings and comments can also serve other users as their first basis on whether they will catch interest in accessing the specific document.

Its available platforms are Android, IOS, and Desktop giving the users three different options of accessibility and portability to the application. Since everyone, especially students, carries a smartphone all the time, they can now have easy access to the application anywhere as long as the device is connected to the internet.

## **Objectives of the Study**

This study aims to design and develop a cross platform application that stores finished thesis from the previous batch of 3rd and 4th year college students and provides a digital sample or copy of these documents to the upcoming 3rd - 4th year college.

Specifically, the project will aim for the following objectives:

- To design and develop a cross platform application that allows storing, viewing, and sorting of digital copies of the written works finished by students from STI College Global City.
- To design and develop a system that gives the user the option of filtering (date published, date uploaded, course, name) while searching, resulting in easier and more convenient navigation.
- To design and develop a module that allows users' feedback, specifically comments, ratings, and suggestions.

### **Scope and Limitations of the Study**

The scope of this project is to develop a thesis depository for STI College global city. STI students will make use of this system should they require sources to aid them in their studies. The system's homepage will show the total of theses that have been stored and the date of its last update, together with the upload button for the students to submit their finished documents. The documents that will be submitted will undergo approval first before getting stored within the repository. The software will provide users the options to filter out from the advanced search system on how these available theses should be sorted (i.e., date, alphabetically, courses etc.) in accordance to the user's selection for easier navigation, also with the help of linear search bar, the users can input words that can easily track documents that have the same keywords from the user input. Once the user found a specific thesis/project, the user can now view the document directly through the web-application and can have the option to download the document's pdf. It will also have the feature of rating that can grant the user to have their own feedback through 1 – 5 stars ratings and comments. With this, the users can form a discussion and can give other users a preview of the thesis's fineness based on their given ratings and comments.

For the system's limitations, the developers of this study shall only provide studies that have only been made by previous students of STI College Global City branch and will only cover from 2015 onwards. An admin or the developers of this project

will be in charge of this system for the verification and approval of the student's uploaded document, this is to avoid students uploading unnecessary documents. It won't also include the Grade 12's finished thesis, therefore only the thesis proposed by the tertiary will be stored in the repository.

## REVIEW OF RELATED LITERATURE/SYSTEMS

### Related Literature

Digital libraries allow storage for numerous types of scholarly works. Students can access these libraries almost anywhere, given they have an electronic device at hand that allows them to do so. These virtual libraries strive to adapt with the ever so changing technology. They would update their designs and algorithms to make sure that they assist students to their utmost ability. (Patnaik, 2017)

The importance of search engines according to Chetan Chauhan (2022, February) is a proven fact, especially for businesses. Search engines must also give importance to things such as advertising, marketing, and print (printed) media. Etc. It can help the user to find the information/topics that they are looking for, it also helps increase the visibility of different results according to the user's input. In addition, search engines also help websites to be more popular with the help of its increasing click-through rate. As for the students, search engines help the users to find information from different online resources, unlike written literature, newspapers etc. This helps students find articles, and current issues and do research on topics related to their studies.

According to M.S.I Malik, Ayyaz Husain (2017) product reviews play an important role in e-commerce websites since they can be used for comparison and helpfulness predictions. The importance of the user's emotions is embedded in their online reviews since it will pose an impact whether it is positive or negative. They presented an approach wherein it can extract the positive and negative emotions from textual content and can also be used for comparison and prediction. The results on real life data assets showed that negative emotion features have comparable performance while positive emotion features give the best predictors and are more influential that impacts perceived helpfulness

## Synthesis

The cited foreign literature shall aid the developers in developing their system. As stated in the objectives these literature gives the developers ideas when developing the system. From online libraries, search engines and feedback feature, altogether this will make a good outcome for the proposed online repository. In conclusion, the developers will base on the ideas of these said literatures that will apply these or come up new ideas that will best fit the system.

Based from Charias, A. R., Janiola, C. J. P., Lopez, M. S., Mapusao, R. R., & Amar, RL, MEd, MDM, J. T. (2019). The Utilization of library services (Library Personnel's Guidebook) from Bestlink College in the Philippines. In order to build a library, it will need to have collections, facilities and different services that are intended for the clients and surely it will cost millions. In terms of collection, most of the books in the library were outdated and library personnel were not approachable to their clients. For the recommendations, they create a guidebook that will be used by library personnel and this will serve as their guide for them to enhance the utilization of library services.

Based from Tura, N., Gonzales, G. R., Mendioro, C. Ramirez, N., Mendoza, Z. J., & Tamon, C.-J. (2020). They made a study to assess the effectiveness of using online library sources in improving the gathered reviews of related literature and studies of the Grade 12 students. The purpose of this is to enlighten the students that they must not only rely on books and common websites that they are familiar with; instead, they should explore and discover other tools in which it might come out handier for collecting their related references, literature and studies since students that are being assessed showed that they lack sources in completing their paper. A total of 98 Grade 12 students from ABM 12-02 and ABM 12-03 were chosen. As a result, it showed improvements such as collecting accurate and

legitimate data, and avoiding plagiarism since the websites that have been used already have a complete list of citations. It was recommended by the researchers that students should explore more websites that have been introduced to them, school administrators should also add these websites in the Grade 12 curriculum.

Filipino shoppers when buying goods on online shops or social media platforms rely on the ratings of the product or if recommended by other consumers that is according to Taiwan-based AI. Compared to other countries within ASIA, Philippines is considered the most dependent when it comes to ratings and reviews, which covers 86% of Filipinos and 56% for the opinion of friends or families. (Ordinario, 2021)

### **Synthesis**

The cited local literature shall aid the developers in developing their system. Said literature helps in proving the relevance and importance of their proposed thesis depository. Furthermore, they state what is needed in a digital depository, hence the developers have thought up the needed modules in DepoSis as stated in their objectives.

### **Related System / Studies**

Google Scholar is a web-application that lets the user search for scholarly literature and was originally created by Alex Verstak in 2004 of November in which it is still currently active from this day. It can be in the form of articles, theses, books, abstracts, and court opinions from professionals, publishers, online repositories, other websites, and universities. This helps the user to find relevant literature from across the world. This web-app also aims to rank the documents based on the way researchers do it, the weight of the full text from each document, where it was published, the author, and also the citation from other scholarly literature.

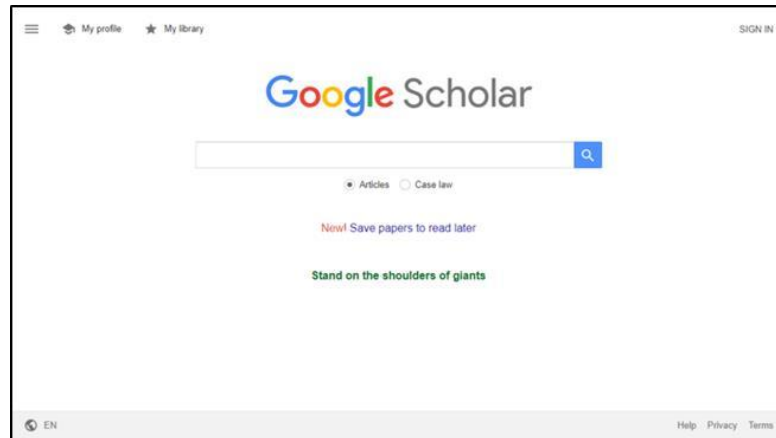


Figure 1: Google Scholar home page

Google co-founder Larry Page began a project in 2002 called Project Ocean which is presently called Google Books. It is a digital library that has a mass of printed sources and books from different libraries and universities around the world wherein it can be accessed by anyone online. It has a feature like Google search engine where results will display printed resources according to the user's input. For books that are shared in the public domain, users can have the access to download its pdf form for free. Otherwise, if the content is not free or needs to be purchased the content that will be shown to the free users are only limited.



Figure 2: Google Books home page



A study conducted by Sunil B. Mane et. al (2017) made a system for analyzing big data that can detect and remove the fake reviews. Since Amazon is one of the largest e-commerce websites that have a user rating feature, this helps the buyers for them to buy it or not or to know if the product is a good quality. Since the present system for the data analysis of reviews is slow, they made Apache Spark Framework for increasing the speed with features like fake review detection, processing the genuine reviews and rating the products.

### **Synthesis**

The cited foreign systems show two google web applications and an application made for rating that will serve the developers the inspiration for their proposed system. It includes a search engine together with a repository for books and documents. In which, these web-applications have the same purpose to our system.

A study made by Armacheska R. Mesa (2017) shows that the University of the Philippines of Mindanao has already produced several academic works such as thesis or problem manuscripts which are made and submitted through hardbound and digital copies by students and it is vital to keep track of these works. The application is a web-based information system that provides the administrators a tool to manage records of manuscripts and all the scholarly works undertaken by the students. It would greatly help problems such as duplication of work and missing manuscripts since printed and electronic copies that are stored into discs can be easily misplaced and it will be hard to track when borrowed.

Jean W. Lalisán and Noel P. Sobejana (2019, November) provided a capstone project which is an electronic repository for the students of SPAMAST. This helps to secure and store the reliable and finished documents that can also help the students and faculty to browse the references conveniently. It is a responsive web-application that can be used from desktop to smartphones. The built-in application consists of a login-in page that can identify the only allowed user entries, a search

engine that can also display different categories such as research papers, capstone titles etc., it also has the feature that can give the user to display comments regarding the document, and lastly the stored documents itself which can be viewed as PDF.



Figure 3: Digital Repository for the students of SPAMAST

A study that has been made by Randy Joy Magno Ventayen (2017) is to know the updated and satisfaction performance rating of the institutional website of Pangasinan State University. With this, it will use a survey as the primary means to gather information from the users. It also has a web analytics tool to help visualize the website's performance. The main purpose of this study is to have continuous improvement by identifying the lacking of the website and its maintenance with the help from the customer's rating and feedback.

## Synthesis

These studies shall provide guidance to the developers when developing DepoSis. The conducted studies show how each module works, therefore providing the developers with significant information. The studies also showcase applications and systems that are similar to DepoSis and its modules, providing references for the development of DepoSis.

## **TECHNICAL BACKGROUND**

### **Overview of Current Technologies to be Used in the System**

Visual Studio Code a source code editor that will serve as the IDE, perfect for day-to-day use. With support for hundreds of languages when developing DepoSis. It is relatively lightweight and provides the developers all the necessary tools for web development. The developers will use PHP as the programming language, open- source cross-platform web server in order to access integrated databases, which will suffice when developing an interactive web page. Xampp will also be utilized as it provides resources to develop localhost and to run PHP. As for the database we will use Xampp's MariaDB database for the storage of the finished thesis of tertiary students.

### **Calendar of Activities**

For the 3rd - 4th week of February the developers have gathered different information for the proposal of their application or title. The title proposal took two weeks for them to brainstorm on the final decision since the first three title proposals were not accepted. After the title got accepted, the developers then started researching the content of chapter 1 which took them almost 3 weeks to finish. The first consultation with the adviser then happened on the 2nd week of April although this consultation covered weeks 1 and 2 of consultation. After the consultation, the developers then proceeded to start revising chapter 1 in which took 2 weeks together with the start of wireframe design which took 4 weeks. The research and making of RRL and RRS start in the 4th week of April and this took them 3 weeks, together with the adviser's comment suggestion in the document for the revisions of chapters 1 and 2. For the first week of May, the developers started chapter 3 of the document. In the 2nd week of May the developers had their 2nd consultation for the checking of chapters 1 and 2, and the wireframe design.

## **Deposis: A Thesis Collection Depository for Mobile and Desktop**

### **SYSTEM DESIGN SPECIFICATIONS**

This document will contain all of the information regarding the software used for development. The developers used **XAMPP** as their webserver, **PhpMyAdmin** for the database application's database and lastly **Visual Studio Code** as the code editor for developing both the front and back end of the website, **Hostinger** to host their web system, and **Microsoft Azure** to provide Microsoft authentication.

#### **Visual Studio Code**

It is a source-code editor made by Microsoft for different programming languages with the help of extensions. It includes debugging, syntax highlighting, intelligent code completion, snippets, code refactoring and embedded GIT.

#### **XAMPP**

It is an open-source cross-platform web server solution stack package that has been developed by Apache Friends. It contains Apache HTTP server, MariaDB Database and can also read scripts that are written from PHP and PERL languages.

#### **PhpMyAdmin**

It is a free software tool written primarily for PHP that is mainly used for handling MySQL administration over the web. It has become one of the most popular MySQL administration tools for web hosting services. It supports ranges such as MySQL and MariaDB. It can execute different SQL statements while using the interface.

## **Hostinger**

Hostinger is a hosting site that provides shared hosting, cloud hosting, VPS hosting, Windows VPS hosting, Email Hosting, SSL certificate, and a website builder. Small to large enterprises can make good use of the varied features that Hostinger provides. When you choose a hosting plan, Hostinger gives you unlimited bandwidth.

## **Microsoft Azure**

The Azure cloud platform is more than 200 products and cloud services designed to help you bring new solutions to life—to solve today’s challenges and create the future. Build, run, and manage applications across multiple clouds, on-premises, and at the edge, with the tools and frameworks of your choice.

## Context Flow Diagram

Context Flow Diagram shows the system under consideration as a single high-level process and then shows the relationship that the system has with other external entities.

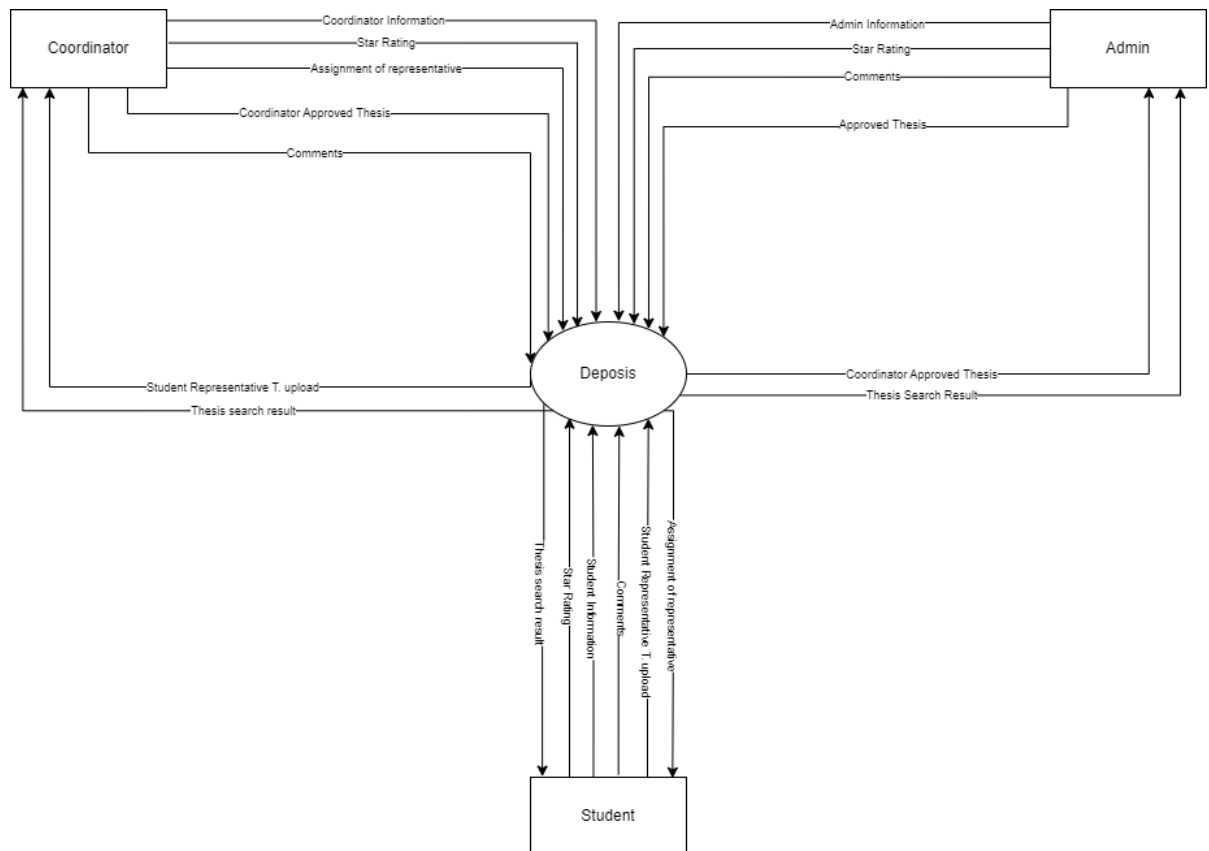


Figure 4: Context Flow Diagram

## Entity Relation Diagram

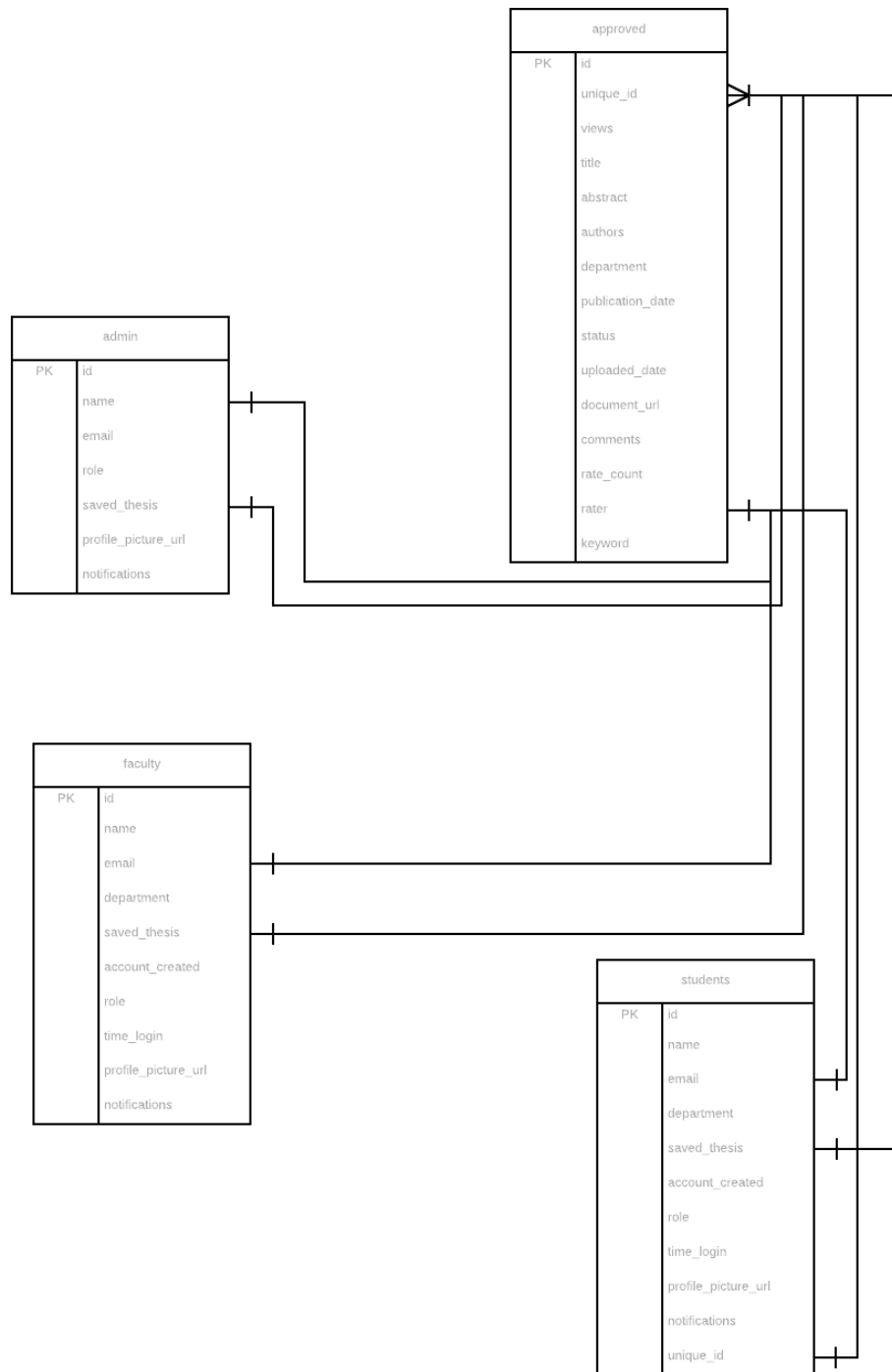


Figure 5: Diagram showing the relations of each module

## Design of Software, System, Product and or Process

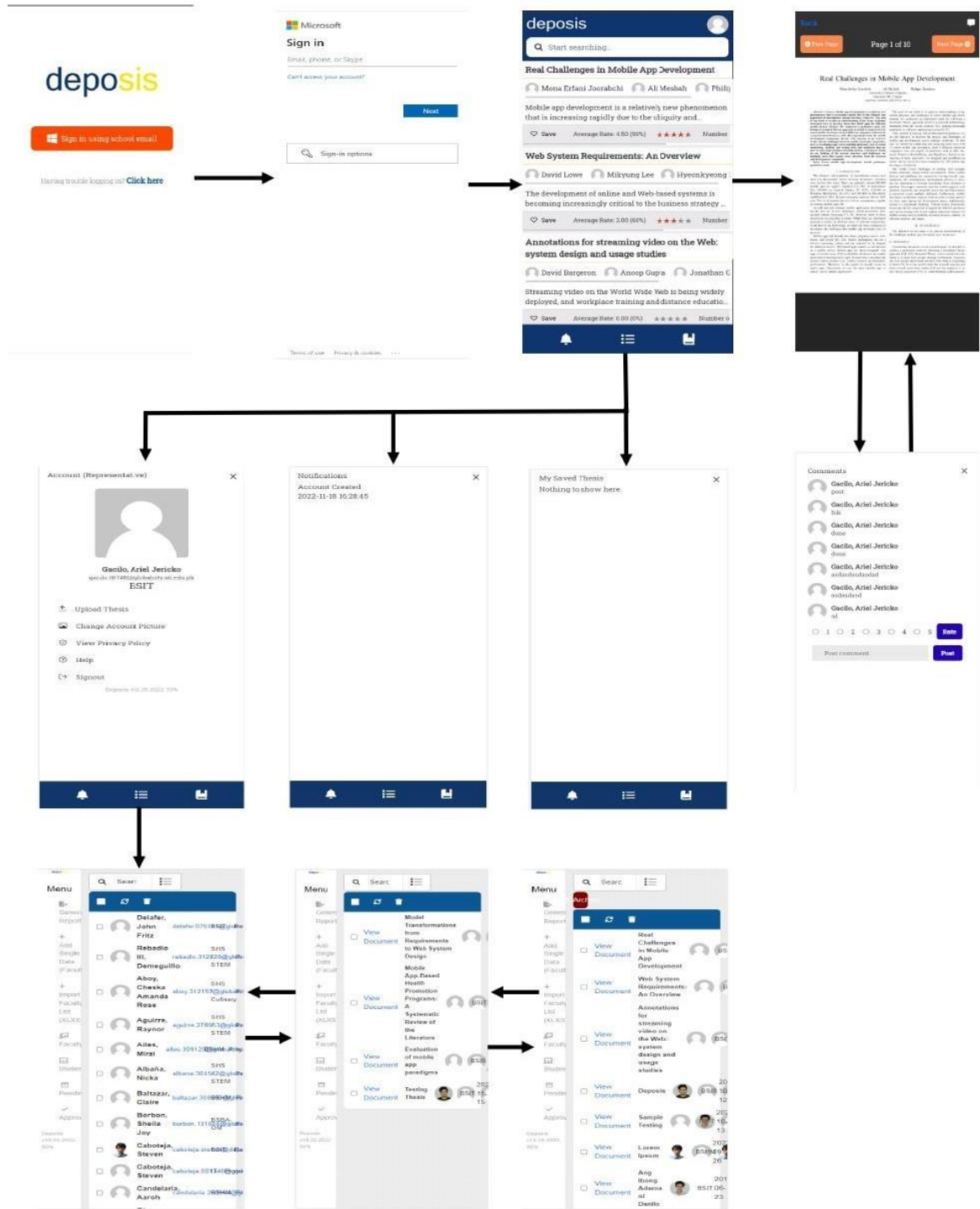


Figure 6: Interface of each module in DepoSis



## Hierarchical Input Output Process (HIPO) Chart

HIPO is used for representing the modules of a system as a hierarchical and for documenting each module. It was used to develop requirements, construct the design and support the implementation of an expert system to demonstrate automated system. The Developers used a hierarchy chart to represent the program's control structure and a set of IPO (Input-Process-Output) charts that describe the inputs to, the outputs from and the functions (or processes) performed by each module on the hierarchy chart.

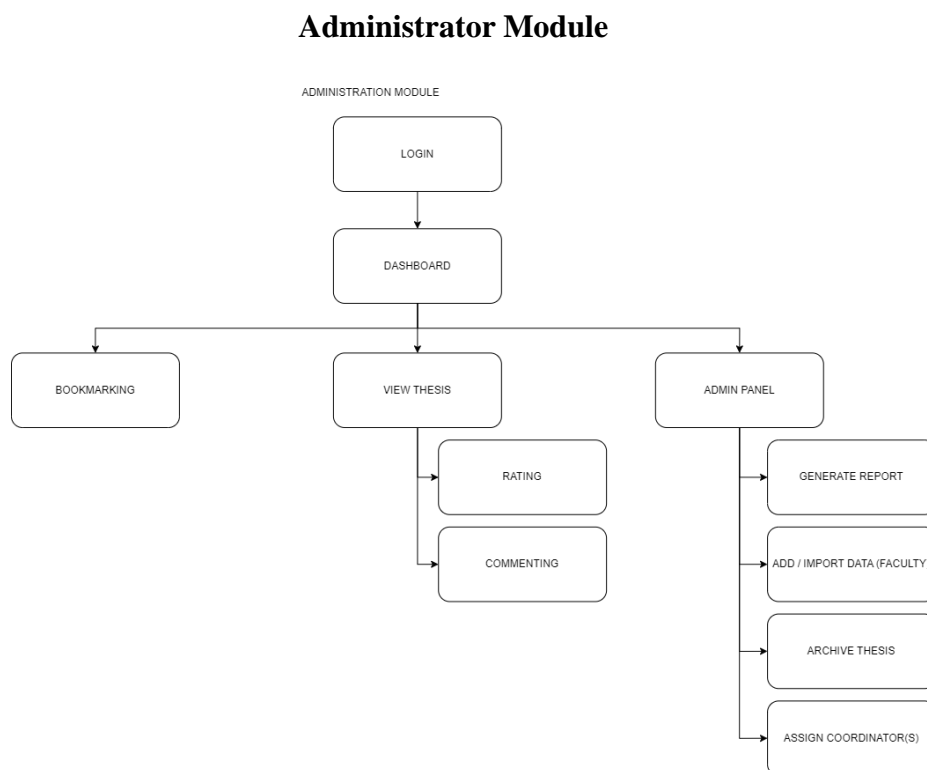


Figure 7: Functions available to the admin

The user of the Administrator must login first before able to access the Dashboard. The landing page after the login is the dashboard where you can interact with the thesis listed. On the Admin Panel, the Admin user can generate report, add single data, or import using XLXS. The admin also can archive approved thesis and assign coordinators. On viewing thesis, the admin user can rate, and comment viewed thesis. The admin user can also bookmark thesis for future readings.

## Coordinator Module

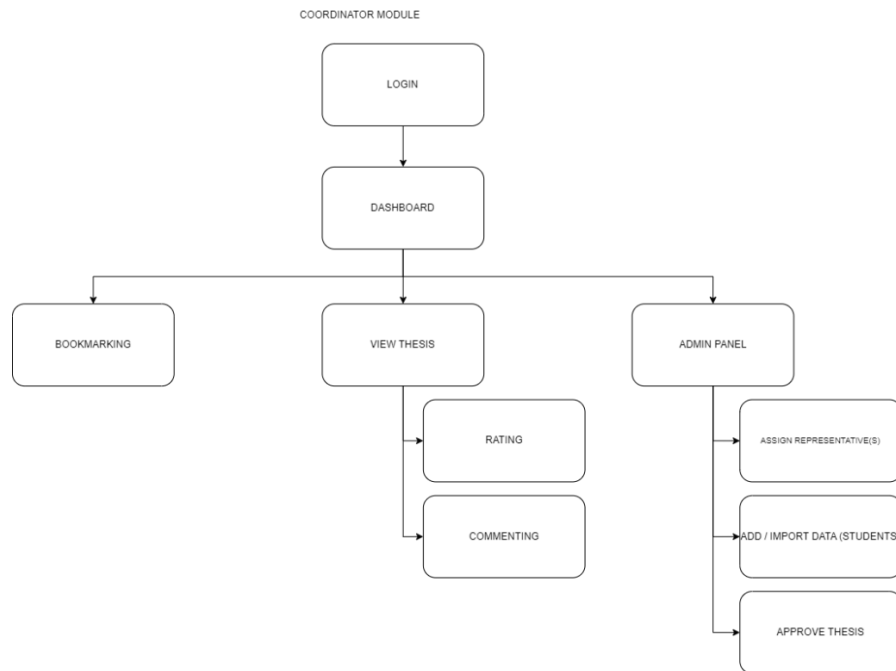


Figure 8: Functions available to the coordinator

Just like the admin, the coordinator should login first in order to access the dashboard. On the Admin Panel, the coordinator can assign thesis representative based on the department she/he was designated. The coordinator can add single data, import data using XLXS and delete data. The coordinator also is responsible for reviewing and approving thesis submitted by thesis representative. On viewing thesis, just like the admin, the coordinator can rate, and comment on the viewed thesis. The coordinator also can bookmark theses for future references.

## Student Module

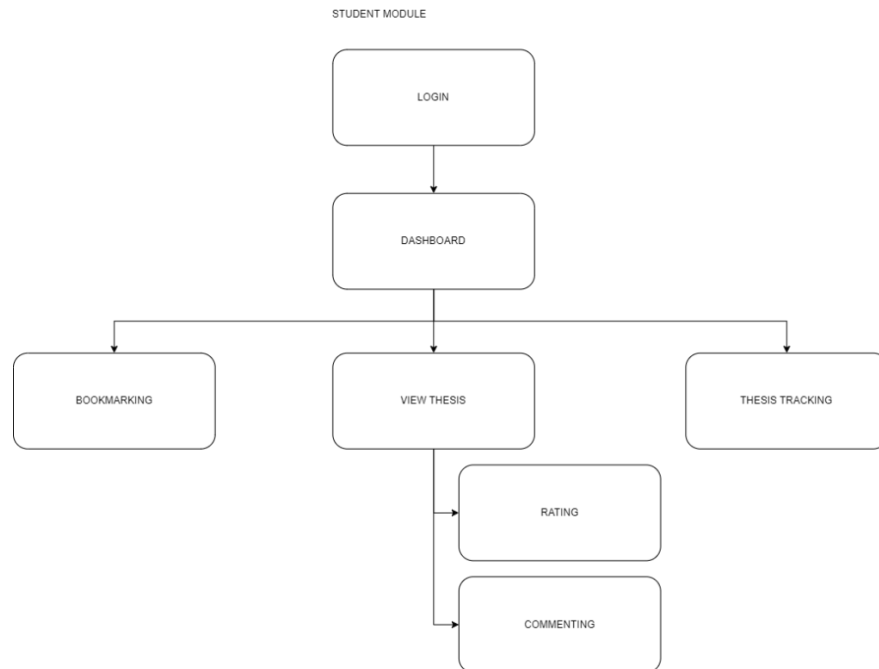


Figure 9: Functions available to the student module

Students (Developers) can track their submitted thesis if applicable. Students can rate, and comment viewed thesis. They can also bookmark thesis for their future reference.

## Representative Module

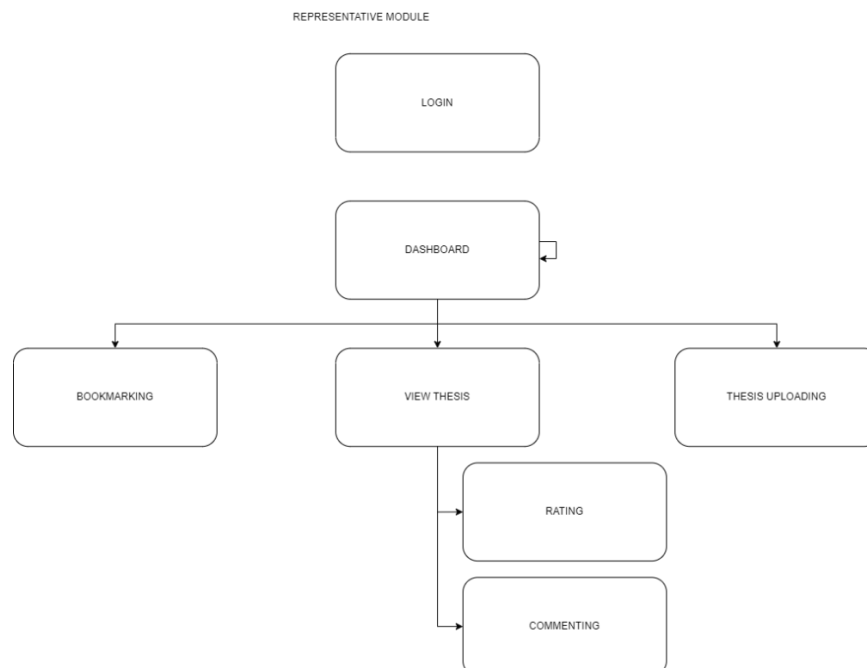


Figure 10: Functions available to the representative module

Representatives can upload thesis. They can track their submitted thesis. Just like other users, they can also rate and comment viewed thesis. They can also bookmark thesis for future references.

## Data Dictionary

### Table name: admin

The table below shows the names of the columns in the table named 'admin' in the database. This is where the data of the admin is stored.

Field Name	Size	Type	Description	Auto Increment
id	11	int	Primary Key	Yes
name	255	varchar		
email	255	varchar		
role	255	varchar		
saved_thesis		text		
profile_picture_url	255	varchar		
notifications		text		

### Table name: approved

The table below shows the variables for the table 'approved'. This is where the data of the approved theses is stored, such as the authors, number of views, department, etc.

Field Name	Size	Type	Description	Auto Increment
id	12	int	Primary Key	Yes
unique_id	12	int		
views	11	int		

title	255	varchar		
abstract		text		
authors	255	varchar		
department	255	varchar		
publication_date		date		
status	255	varchar		
uploaded_date		datetime		
document_url	255	varchar		
comment		text		
rate_count	11	int		
average		float		
rater		text		
keyword	255	varchar		

**Table name: faculty**

The table below is the table where the data of the coordinator module is stored.

Field Name	Size	Type	Description	Auto Increment
id	11	int	Primary Key	Yes
email	255	varchar		
name	255	varchar		
department	255	varchar		
saved_thesis		longtext		
account_created		text		
isfirsttime	1	tinyint		
role	255	varchar		
times_login	11	int		
profile_picture_url	255	varchar		
notifications	11	int		

**Table name: students**

The table below is the table for the data of students. It contains data such as the number of logins, bookmarked theses, role, etc.

Field Name	Size	Type	Description	Auto Increment
id	11	int	Primary Key	Yes
email	255	varchar		
name	255	varchar		
department	255	varchar		
saved_thesis		longtext		
account_created		text		
isfirsttime	1	tinyint		
role	255	varchar		
times_login	11	int		
profile_picture_url	255	varchar		
notifications		text		



## Hardware and Software Requirements

The software and hardware requirements needed in the implementation of the web-application should be recognized before the employ process. The minimum must be made in-order to make the execution of the application run without any variance.

### Hardware Specification Requirements

#### DESKTOP

Intel Pentium 4 Processor
4 GB RAM
Monitor (1366x769 resolution)
Standard Optical Mouse
Standard Keyboard
Internet Connection Speed up to 1 mbps

#### MOBILE

3-4 GB RAM
1 mbps Internet speed
Android 7.0 Nougat / iOS 12.4

Table 5. Minimum Hardware Specification Requirements

The Table 5 represents the minimum hardware requirements for PC such as Intel PentiumDuo, 4 GB RAM, 200 GB Hard Drive for storage, monitor that supports 1366x769 resolution, Standard Optical Mouse, Standard Keyboard and an Internet Connection Speed up to 1mbps, For Mobile such as 2-4 GB RAM and that supports Android 7.0 Nougat.

#### DESKTOP

Intel Quad Core
4 GB RAM
Monitor (1366x769 resolution)
Standard Optical Mouse

Standard Keyboard
Internet Connection Speed up to 3 mbps

#### MOBILE

4 GB RAM
1 mbps Internet speed
Android 7.0 Nougat + / iOS 12.4+

Table 6. Minimum Hardware Specification Requirements

The Table 6 represents the recommended hardware requirements such as Intel Quad Core, 4 GB RAM, monitor that supports 1366x769 resolution, Standard Optical Mouse, Standard Keyboard and an Internet Connection Speed up to 3mbps.

#### Software Specifications Requirements

Microsoft Windows 7 / macOS High Sierra 10.13
Microsoft Windows starter 32/64 bit / macOS High Sierra 10.13
Windows Server 2012, Windows Server 2012 R2
Java Runtime Environment 8

Table 7. Minimum Hardware Specification Requirements

The Table 7 represents the minimum software requirements such as Microsoft Windows starter 32/64 bit / macOS High Sierra 10.13, Windows Server 2012 or Windows Server 2012 R2 and Java Runtime Environment 8.

Microsoft Windows 7 ultimate or higher 32/64 bit
Microsoft Windows starter 32/64 bit / macOS High Sierra 10.13 or later
Windows Server 2016.
Java Runtime Environment 8

Table 8. Recommended Hardware Specification Requirements

The Table 8 represents the minimum software requirements such as Microsoft Windows7 ultimate or higher 32/64 bit and macOS High Sierra 10.13 or Later, Windows Server 2016. and Java Runtime Environment 8.

## **RESULT AND DISCUSSIONS**

### **Introduction**

Performance Analysis involves gathering formal and informal data to help the users of STICollege Global City. It bares several perspectives on a particular problem or opportunity. Helping STI College Global City to have a successful performance and proposing a solution system based on what is discovered. The goal of the performance analysis is to make sure that the software program is working efficiently, easy to operate and to identify and correct issues that may affect the integrity of the system. Performance is the procedure used by the developer for analyzing errors and changes, making the developed system appropriate to the user of DepoSis.

Experimenting, testing and analysis are the three (3) of the most important things to do in developing a system, for these helped the developers determine whether the system is functional or non-functional.

This chapter explains the methods utilized by the developers and show the reliability and consistency of the system. The developers search method to resolve the problem stated. The solutions to these problems were gathered for interview and observation. The developers gather information to support the information that they may encounter in the current process.

### **Experimental**

- **Unit Testing**

In this activity, modules of the developed system will be tested and evaluated according to the system requirements and functionality provided by the users of STI College Global City. Each Module will be tested according to the specific functions. Whatever errors that may be encountered must be listed down and discussed among them. The entire system was tested for more considerations which may be over worked during first testing. Likewise, it is one of the most important things to do while developing a system because this would help the developers to know if system is fully functioning.

- **Module Testing**

A module encapsulates related components so that it can be tested without the other system module. Module Components were tested independently, without the other system components. The developers tested the different modules of the developed system to detect errors. The developed modules were analyzed and tested to ensure that each module is working correctly, error free and can be usable by the users and clients of STI College Global City.

- **System Testing**

The process of performing a variety of tests through a system to explore functionality in identifying problems. System testing is usually required before and after a system is put in place. In this activity, the whole system will be evaluated and tested to check for errors and possible malfunctions that maybe encountered. This test will determine the system's usability once implemented and used by the client. Having met the criteria of the test plan, the developed system may then be paused for user acceptance testing.

- **Software Testing**

The developers used the software testing to detect errors on the developed system. The developers executed the newly developed system by observing and analysing its operation, and locating any errors to ensure that the system would be applicable to the users of the system.

## **Results And Analysis**

This Chapter will give an overview of the results from the experiments as mentioned in different cases in the previous discussion. Sample data were included for examination and explained through presentation. The developers conducted an interview and constructed the needed results that were carefully examined which provide the assumption made. The developers conducted survey for every user tested the computerized system. A survey was conducted by the developers to know the feedback from the admin and to test the functionalities of the system. To acquire the percentage and the individual total share used in the data interpretation. The developers used the following formula:

### **Individual Total Score (ITS)**

Individual Total Score is similar to an arithmetic mean, where each of the data point contributing equally to the final average. Some data points contribute more than others ITS formula:

$$ITS = \frac{[(A * 5) + (B * 4) + (C * 3) + (D * 2) + (E * 1)]}{x}$$

#### **Where:**

ITS = Individual Total Score

A = Number of persons who marked Excellent

B = Number of persons who marked Above Average

C = Number of persons who marked Average

D = Number of persons who marked Below Average

E = Number of persons who marked Poor

X = Total Number of Respondents

Rating	Weighted Mean	Remarks
4.51 – 5.00	5	Very Satisfactory
3.51 – 4.50	4	Satisfactory
2.51 – 3.50	3	Fair
1.51 – 2.50	2	Poor
1.00 – 1.50	1	Very Poor

#### Discussion:

The developers used weighted mean for scaling grades with an interval of 50. The weights used are 5, 4, 3, 2, 1 where 5 is the highest and 1 is the lowest. The comments used Excellent for the weight of 5 which means that the respondent who answered the survey is very much satisfied on the criteria of the system. Weight 4 interprets Very Good which means that the respondent is satisfied with certain criteria but exceeds the respondents' expectation. Good for the weight of 3 means that the criteria are good enough to meet what is required for the system. Fair for the weight of 2 which means that the system function well and meet its minimum requirements and lastly Poor for the weight of 1 which means that the module did not function.

DepoSis	Rating						
Criteria	5	4	3	2	1	Weighted Mean	Remark
Responsiveness	31	7	2	0	0	4.73	Very Satisfactory
Page Loading Speed	26	10	4	0	0	4.55	Very Satisfactory
Search Loading Speed	25	12	3	0	0	4.55	Very Satisfactory
Overall Performance	29	11	0	0	0	4.73	Very Satisfactory
Rating	22	15	3	0	0	4.48	Satisfactory
Thesis Tracking	25	10	5	0	0	4.50	Satisfactory
Navigation	25	12	3	0	0	4.55	Very Satisfactory
Commenting	26	12	2	0	0	4.60	Very Satisfactory
Bookmarking	25	13	2	0	0	4.56	Very Satisfactory
Filtering	28	11	1	0	0	4.68	Very Satisfactory

Overall Features/Function	28	12	0	0	0	4.70	Very Satisfactory
Is it accessible in Mobile	33	4	3	0	0	4.75	Very Satisfactory
Is it accessible with other devices	27	10	3	0	0	4.60	Very Satisfactory
User-friendliness	27	12	1	0	0	4.65	Very Satisfactory
Overall Accessibility	32	8	0	0	0	4.80	Very Satisfactory
Logo/Icons	15	20	5	0	0	4.25	Satisfactory
Color Theme	21	12	7	0	0	4.35	Satisfactory
Desktop Layout	24	11	5	0	0	4.48	Satisfactory
Mobile Layout	22	16	2	0	0	4.50	Satisfactory
User interfaces	26	11	3	0	0	4.58	Very Satisfactory
Overall Design	27	12	1	0	0	4.65	Very Satisfactory
Average Rating						4.58	Very Satisfactory

After conducting a survey on the students of STI College Global City about Deposits. The result shows that the user average rating was **4.58** which indicates that the overall measurement for Deposits is **very satisfactory**.

The developers conducted this system testing to see the system feasibility, overall appeal, and its effectiveness to the school. This testing is done by the developers to ensure that the developed system has met its requirements and what the school needs. The newly developed system provides a new material for students of STI College Global City especially those who undergoes Capstone I and Capstone II.



## **CONCLUSIONS AND RECOMMENDATIONS**

### **CONCLUSION**

The entire tests done were to check the system interface, ease of navigation, validation of inputs accuracy and user friendliness. The developers were able to determine the improvement of the developed system compared to the manual system that the company was using, by series of tests that were done on the system with the help of the owner of the company, to make sure that the system runs properly.

By the means of the method that the developers used to extract the facts, they reached on the following conclusions based on the problems identified in the study:

The developed system provides ease for the data gathering and thesis searching for the local and STI only thesis that may help the developers who undergoes Capstone I and Capstone II. It also gives a centralized digital platform for thesis of STI College Global City. The developers conclude that the newly implemented system was far better than the previous manual system, and it provides better service to the company's daily users with ease and convenience.

### **RECOMMENDATION**

The Developers conclude and recommend that there are still room for improvements with the system. For example, it will be more useful and modular when customization of the system is added on the system. Also, it is also better to focus on the Faculty and Admin Panel. It is also a great improvement when the system can be more a social media type so that user can exchange information easily.

### Gantt Chart of Activities

MONTH	FEBRUARY				MARCH				APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER				OCTOBER				NOVEMBER			
ACTIVITY																																								
Data Gathering for Title Proposals																																								
Title Presentations/Proposal																																								
Research and making of chapter 1 content																																								
Consultation week 1 & 2																																								
Revisions on chapter 1																																								
Wireframe Design																																								
Research and making of chapter 2: RRL and RRS																																								
Consultation week 3																																								



## APPENDIX

### References

- Patnaik, R. (2017). *Role of Digital Libraries in Supporting E-Learning*. 8
- Mesa, A. R. (2017). Design and Development of an Online Repository System for Thesis and Special Problem Manuscripts. *IJODEl*, 3(1).
- Ordinario, C. (2021, October 12). *PHL online shoppers rely on ratings, reviews / Cai Ordinario*. BusinessMirror.
- Ventayen, R. J. M. Web Satisfaction Rating and Comparison of State University and Colleges Web Rankings.
- Mane, S. B., Assar, K., Sawant, P., & Shinde, M. (2017). Product rating using opinion mining. *Int. J. Comput. Eng. Res. Trends*, 4(5), 161-168.
- Chauhan, C. (2022, February 1). *Importance of Search Engines Guide in 2022*. Chetan Chauhan. <https://chetanischauhan.com/importance-of-search-engines/>
- Charias, A. R., Janiola, C. J. P. Lopez, M. S., Mapusao, R. R., & Amar, RL, MEd, MDM, J. T. (2019). The extent of Utilization of the Library Services of Bestlink College of the Philippines: Towards a Library Personnel's Guidebook. *Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research*, 1(1). Retrieved from <https://ojs.aaresearchindex.com/index.php/aasgbcjpmra/article/view/1480>

Tura, N., Gonzales, G. R., Mendiolo, C., Ramirez, N., Mendoza, Z. J., & Tamon, C.-J. (2020). Assessment on Effects of Using Online Library Sources on Improving Collection of Review of Related Literature of Grade 12 Students in Bestlink College of the Philippines. *Ascendens Asia Singapore – Bestlink College of the Philippines Journal of Multidisciplinary Research*, 2(1). Retrieved from <https://ojs.aaresearchindex.com/index.php/aasgbcjpmra/article/view/1160>

Mesa, A. R., & Chiang, J. Y. (2021). Multi-Input Deep Learning Model with RGB and Hyperspectral Imaging for Banana Grading. *Agriculture*, 11(8), 687.

Lalisan, S. J. W., & Sobejana, N. P. (2019). Research and Capstone Project Electronic Repository. *Current Journal of Applied Science and Technology*, 38(4), 1-12.

Ventayen, R. J. M. Web Satisfaction Rating and Comparison of State University and Colleges Web Rankings.

Wikipedia contributors. (2022, April 28). *Google Scholar*.  
Wikipedia. [https://en.wikipedia.org/wiki/Google\\_Scholar](https://en.wikipedia.org/wiki/Google_Scholar)

Wikipedia contributors. (2022b, May 7). *Google Books*.  
Wikipedia.  
[https://en.wikipedia.org/wiki/Google\\_Books](https://en.wikipedia.org/wiki/Google_Books)

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### EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2019-present	STI College Global City
	2017-2019	Jose Rizal University
	2015-2017	Polytechnic University of the Philippines
High School	2011-2015	Pateros Catholic School
Elementary	2005-2011	Pateros Catholic School

### PROFESSIONAL OR VOLUNTEER EXPERIENCE

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
month year		
month year		
month year		
month year		

**Listed in reverse chronological order (most recent first).**

### AFFILIATIONS

Inclusive Dates	Name of Organization	Position
month year		
month year		
month year		
month year		

Listed in reverse chronological order (most recent first).

## SKILLS

SKILLS	Level of Competency	Date Acquired
Computer Programming		month year
Web Development		month year
Basic Accounting		month year

Listed in reverse chronological order (most recent first).

Curriculum Vitae of

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### EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2017 - Present	STI College Global City
Vocational/Technical	month year	
High School	2013 - 2017	Benigno 'Ninoy' S. Aquino High School
Elementary	2007 - 2013	Rizal Elementary School

### PROFESSIONAL OR VOLUNTEER EXPERIENCE

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
month year	Intern (On-the-job training)	STI College Global City

Listed in reverse chronological order (most recent first).

### AFFILIATIONS

Inclusive Dates	Name of Organization	Position
month year		

Listed in reverse chronological order (most recent first).

### SKILLS

SKILLS	Level of Competency	Date Acquired
Computer Literacy	Intermediate	month year
Programming	Intermediate	month year
Web Development	Intermediate	month year



## TRAININGS, SEMINARS, OR WORKSHOPS ATTENDED

Inclusive Dates	Title of Training, Seminar, or Workshop
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month year	
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month year	
------------	--

month year	
------------	--

month year	
------------	--

Listed in reverse chronological order (most recent first).

Curriculum Vitae of  
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**EDUCATIONAL BACKGROUND**

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2019 - Present	STI College Global City
Vocational/Technical	2017 - 2019	STI College Global City
High School	2013-2017	Fe del Mundo National High School
Elementary	2007-2013	Roxas Central School

**PROFESSIONAL OR VOLUNTEER EXPERIENCE**

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
month year	Intern (On-the-job training)	STI College Global City

**Listed in reverse chronological order (most recent first).**

**AFFILIATIONS**

Inclusive Dates	Name of Organization	Position
month year		

**Listed in reverse chronological order (most recent first).**

**SKILLS**

SKILLS	Level of Competency	Date Acquired
Computer Literacy	Intermediate	month year
Programming	Intermediate	month year
Web Development	Intermediate	month year

**TRAININGS, SEMINARS, OR WORKSHOPS ATTENDED**

Inclusive Dates	Title of Training, Seminar, or Workshop
-----------------	---

month year	
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month year	
------------	--

month year	
------------	--

month year	
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**Listed in reverse chronological order (most recent first).**

Curriculum Vitae of

## Carl Justin L. Domingo

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### EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2019-Present	STI College Global City
Vocational/Technical	2017-2019	Pasig Catholic College
High School	2013-2017	Pasig Catholic College
Elementary	2007-2013	Pasig Catholic College

### PROFESSIONAL OR VOLUNTEER EXPERIENCE

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
December 4th to December 15th	(Work Immersion)	Rex BookStore-Head Office (109 M Cuenco, Quezon City, 1114 Metro Manila)

Listed in reverse chronological order (most recent first).

### AFFILIATIONS

Inclusive Dates	Name of Organization	Position
month year		
month year		

Listed in reverse chronological order (most recent first).

### SKILLS

SKILLS	Level of Competency	Date Acquired
--------	---------------------	---------------

Basic Programming	Intermediate	month year
Web Development	Intermediate	month year
IP Setup	Intermediate	month year

#### TRAININGS, SEMINARS, OR WORKSHOPS ATTENDED

Inclusive Dates	Title of Training, Seminar, or Workshop
month year	
month year	

Listed in reverse chronological order (most recent first).