



## BUKSU CAPSTONE ARCHIVING MANAGEMENT SYSTEM

A Capstone Project

Presented to  
College of Technologies  
Bukidnon State University  
Fortich St. Malaybalay City

In partial fulfillment  
of the Requirements for the Degree  
Bachelor of Science in Information Technology

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## APPROVAL SHEET

This capstone project entitled **BukSU Capstone Archiving Management System**, prepared and submitted by **Phebe A. Billones, Gerald John S. Hiponia, Jhonrey C. Victor, Dems Brial G. Elizarde.** in partial fulfillment of the requirements for the degree Bachelor of Science in Information Technology is hereby accepted.

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## **ABSTRACT**

This study aims to develop and design an online web-based Archiving Management System of capstone projects for BukSU IT department which serves as a solution to the users in order to avoid the repetition of proposals and analyze any gaps in their capstone projects. The system enables the user to digitize the capstone project in the BukSU IT department by using Optical Character Recognition technology. It also captures documents in each phase of the study. The system minimizes the time spent scanning the documents by using OCR rather than manual input. In addition, the system will be used to monitor and maintain the records of all capstone projects for Information Technology graduate and undergraduate students at Bukidnon State University. In addition to the following: To the teachers. This study helps the teachers of Bukidnon State University (BukSU) have a reference when suggesting new ideas for the students' project proposals. To the students: This study provides BukSU students with a reference on previous projects that have already been created. This also helps them acquire the specific documents that they need without visiting the library. The Modified Waterfall Process Model was used to develop the system. The front end is the gate for developing the system, and the proponent used Vue.js 3, Bootstrap 5, CSS, and HTML. And for the back-end the proponents used Laravel version 9 a PHP framework for software development mainly PHP version 8.1.2 And mariaDB version 10.4.22 was used as a database for storing data. Lastly, testing has been conducted to find errors and make suggestions. Then proceeded with the operations in order for the system to be fully approved and ready for production.

**Keywords:** Web-based Archiving Management System, Optical Character Recognition (OCR), capstone progress monitoring, digitizing the physical documents, Modified Waterfall Process Model, Topic Suggestion, Capstone Rating.

## Chapter I

### INTRODUCTION

#### 1.1 Background of the Study

Information Technology (IT) program is one of the courses offered in Bukidnon State University (BukSU) it includes the study of the utilization of both hardware and software technologies involving planning, installing, customizing, operating, managing and administering, and maintaining information technology infrastructure that provides computing solutions to address the needs of an organization (Buksu.edu.ph). The final requirement for the IT students to be able to graduate is to create and publish a capstone project. Every year, the capstone projects that were published are stored in the cabinets of the department's mini library. But there are problems occurring in keeping and monitoring records in time, such as when some capstone projects have already been damaged, there is no storage space left, and the accessibility of finding the document in physical storage is time-consuming. That's why most of the students and instructors suffer from the repetition of capstone project proposals.

The creation of this web-application has solved the problem by utilizing the use of digitization. According to (Jayoma et al., 2020), digitization is the process of converting paper-based data into a digital format, such as computer-generated electronic documents or digital images obtained through scanning or photography. Along with, digital archiving is a repository of digital material that a company or person desires to keep for a longer period of time. It stores collections of digital information such as documents, video, pictures, etc in a digital format with the intention of providing long-term access to the information. Before then, digitization of documents was achieved by manually typing the text on the computer. This method of converting paper-based documents into their digital form is time-consuming and vulnerable to human error. With the advent of high technology, various ways are emerging to digitize printed/paper-based materials. So, instead of manual input, the archive system enables the user to store and retrieve information from a centralized location using Optical Character Recognition (OCR) technology.

According to (Schmidt, 2020) OCR technologies can read, extract, and convert any type of image into digital text, including bitmaps, jpeg's, png's, pdfs, Word documents, Excel

spreadsheets, and tiff tiles. These individual text fields can then be read and processed as data items that with the right document management system can be indexed and accessed with ease. With the help of OCR, you can spend less time finding documents and more time providing the users' service or other information hand-off tasks you normally do, and it can easily convert any image or scanned document into text form.

The Archiving Management System of capstone projects for BukSU IT department serves as a solution to the users in order to avoid the repetition of proposals and analyze any gaps in their capstone projects. The system enables the user to digitize the capstone project in the BukSU IT department by using OCR technology. It also captures documents in each phase of the study. The system minimizes the time spent scanning the documents by using OCR rather than manual input. In addition, the system will be used to monitor and maintain the records of all capstone projects for Information Technology graduate and undergraduate students at Bukidnon State University.

## **1.2 Statement of the Problem**

BuKSU IT Department traditionally archives the capstone projects in physical storage. The problem is that the paper can easily get lost, it takes time to search for the documents and they need a lot of space to be stored. Moreover, they do not have records on when they started storing capstone projects, what is the average number of capstone projects being stored in a year or how many capstone projects are stored as of the year the study was conducted. This is due to no current implementation of capstone project digitization and archiving system that displays existing and under-developed capstone projects (IT Department faculty). This leads to the repetition of capstone project proposals. And most of the third-year and fourth-year students, including the advisers, are the ones who suffer for the very same reason.

Additionally, there is also no system implemented in terms of monitoring the students' progress on their capstone project in each phase from capstone 1 to 3. They only used Google Spreadsheets, which are less reliable since students may think they simply generate false data. They need to clarify it to the panel since the instructor will be unsure of whether the students submitted the truth or not, and acquiring those students' records subsequently takes a significant amount of time.

Therefore, it is a huge help to the Buksu IT Department to have an Archiving Management System that enables the user to archive and monitor the capstone projects using computers. It will no longer spend a lot of money on paper and can save on inventory and stationery costs. Moreover, the system provides an easily accessible way for the user to search and digitize the capstone projects. It's simple to manage once you archive them, and there's a fewer chance of losing your data.

### 1.3 Objectives of the Study

The main objective of the study is to design and develop an Archiving Management System for BukSU IT Department Capstone Project that aids the faculty and students in viewing the existing and in-progress capstone projects.

Specifically, the study aims to:

1. Digitize all capstone projects of graduate and undergraduate students in the BuKSU IT Department.
2. The administrator and faculty members would monitor the capstone projects through phasing in terms of its changes and progress in the development process.
3. Provide authenticated access to users with specific authorization roles such as administrator, faculty and students.
4. Capture links such as embedded youtube and google documents for each phase of the capstone project, which is the following:
  - a. Capstone one course file that includes the proposal with three chapters such as action done matrix, secretary minutes etc.
  - b. Capstone two includes demonstration of the prototype considering it was uploaded in youtube and all course files such as action done matrix, secretary minutes etc.
  - c. Capstone three includes demonstration of the system considering it was uploaded in youtube, github link and all course files such as action done matrix, secretary minutes etc.

5. Capture data such as title, school year of capstone project being conducted, abstract, author, co-author, advisers, panelist, status, pdf documents for secretary minutes and final manuscript etc.

6. Evaluate the effectiveness and usability of the solution.

#### **1.4 Significance of the Study**

This study is significant for the Information Technology Department to promote a more secure and easily accessible archive. This web-based application helps the BukSU IT Department to monitor the progress of capstone projects in every phase and to keep records of physical documents through digitization in case of disappearance or physical damage.

This study, entitled "BukSU Capstone Project Archiving Management System" is thought significant for the following:

To the **teachers**. This study helps the teachers of Bukidnon State University to have a reference in suggesting new ideas for the students' project proposals.

To the **students**. This study provides Bukidnon State University students with a reference on previous projects that have already been created. This also helps them acquire the specific documents that they need without visiting the library.

To the **proponents**. This study helps the proponents to have a successful project in proving that they can develop this application, and many people will benefit. Additionally, it serves as an excellent learning opportunity to improve the proponents' abilities while completing the study.

To the **future developer**. This project will serve as a reference for further development of web-based applications and could provide a more effective application.

#### **1.4 Scope and Delimitations**

This study covers the development of a web-based Capstone Archiving Management System, which helps the BukSU IT Department to monitor the approved capstone projects of undergraduate students, mainly the third-year and fourth-year students. Also, it digitizes the

physical document of capstone projects made by graduate students using OCR technology. The system captures the abstract of capstone projects and serves as a solution to the users in order to avoid the repetition of proposals and analyze any gaps.

The proponents used Laravel 9 (version), a PHP framework for software development, Vue.js 3 (version) a JavaScript framework for building user interfaces, Bootstrap a CSS Framework, CSS, HTML a standard markup language for documents designed to be displayed in a web browser and Tesseract an Optical Character Recognition engine.

The system has three end-users. These are the administrator, faculty and IT students. The administrator will be a faculty member assigned by the chairperson, the one that manages the users, capture the capstone projects of graduate students with the use of OCR, and monitor any files that are uploaded to the system. The faculty are the adviser, instructor, secretary, and panelist who can monitor the capstone project documentation of undergraduate students. And for the IT students, they would be responsible for viewing the capstone project list and only the third-year and fourth-year IT students can upload their files after each phase since capstone will start in their third academic year.

The system enables the user to capture every phase from capstone 1, the proposal, capstone 2, the prototype, and capstone 3, the final documentation. After that, the project and its related files can be viewed in the system by the faculty and IT students. The system has a feature that the panelist can rate the capstone project in each phase. And the secretary can upload the minutes of every defense which can be downloaded by the students. It also has a topic suggestion that allows administrators and faculty to suggest study topics, which students can view and develop as their own capstone project. There is also a dashboard system for the administrator and faculty to monitor all the data in one display. The capstone project information made by the graduate students will include the title, the year the capstone project was completed, abstract, author, co-author, status, and adviser. Only scanned documents, mainly image format, are readable in OCR technology, and videos are not supported for upload. This web-based application is designed and only available to the IT Department at Bukidnon State University.

## **1.5 Definition of Terms**

**The BuKSU IT Department** prepares students to engage with a wide range of user demands involving the selection, development, application, integration, and administration of computer technology within an organization.

**The capstone project** represents new work and ideas and gives students in the Information Technology Department the opportunity to demonstrate their knowledge and skills.

**Devices (PC, and Phone Camera)** are used to access the system and to register relevant information. It is also used to archive, identify, classify, store, secure, and retrieve documents.

**The Administrator** is the ISO coordinator who is in charge of all things administrative and the overall operations of the system.

**The student** is the proponent, or researcher, who conducted their research for capstone projects.

**The faculty** are the adviser, co-advisor, panelist, chairperson, secretary, and dean.

**The panelist** is one of the faculty members of a discussion or advisory and might approve or deny the students' title proposal, as well as provide recommendations and remarks during the defense.

**Web-based application** is any program that is accessed over a network connection using HTTP, rather than existing within a device's memory. Web-based applications often run inside a web browser (*What Is a Web-Based Application? - Definition From Techopedia, 2022*).

**Capstone 1** is a project proposal and the system will capture its course file which includes manuscript, action done matrix, minutes etc.

**Capstone 2** - is a system prototype and the system will capture its course file which includes demonstration, action done matrix, minutes etc.

**Capstone 3** is a final project and the system will capture its course file which includes manuscript, demonstration, action done matrix, minutes etc.

**Deployed** a capstone status when the capstone project was completed and the system was implemented.

***Unimplemented*** a capstone status when the project was completed but the system was not used by the client.

***Under-Development*** a capstone status for the capstone project of undergraduate students such as third year and fourth year and the capstone project was not yet complete.

***Topic suggestion*** is a feature that students can obtain certain topics that was suggested from the administrator and faculty and develop it as their own study.

## **Chapter 2**

### **REVIEW OF RELATED LITERATURE**

This chapter includes both local and foreign reviews that have a connection to the related study. The relevance is shown by the proponents to provide further justification, explanation, and significance as to why the proponents chose this study. The related studies serve as the proponents' references to relate, compare, and differentiate the existing system from the one that the proponents are going to develop.

A review of related literature (RRL) is a detailed review of existing literature related to the topic of a capstone. It talks about knowledge and findings from existing literature relevant to the topic. If they find gaps or conflicts in existing literature, they can discuss these in the review, and address these gaps or resolve these conflicts through the study (*How Do I Do a Review of Related Literature (RRL)?* , 2020).

#### **2.1 Foreign Literature**

According to (Garfield, 2017,) Archiving is the process of moving files that are no longer actively used to a separate storage device for long-term retention. Archived files are still important to the organization and may be needed for future reference or must be retained for regulatory compliance. Archives should be indexed and searchable so that files can be easily located and retrieved. Archiving is an important final stage. Keeping too much old information available online consumes valuable storage which could be better used for newer information, increases the number of irrelevant search results returned, and adds to the effort required to maintain, migrate, and reclassify content. There are good reasons to archive content rather than simply delete it. Laws may require content to be kept for specific periods. Internal and external audits may require document retention. Preserving information as a part of history is another worthy goal. And there are times when information which had been thought to be no longer useful later turns out to be needed. Archiving information addresses each of these requirements.

According to (Akshay Gharde, 2021) OCR is an important, evolving technology that can help us play an important role in the automation of various processes. OCR involves detecting text content on scanned materials (Like images) and translation of the recognized text to

encoded Text that the computer can easily understand. Through OCR, The digitization process is more comfortable as the document can be scanned, processed and the text extracted are stored in an editable form such as a word document.

The study of Rakfukfon et al., 2017) is a web-based MySRT Management System for Senior Project Document Repository and Tracking application that assists the faculty in keeping track of senior project submissions and procedures performed. This database system is an improvement from the paper-based system. Users can search for the senior project and track the submission status. Moreover, the administrator can update the status, send notifications, and delete the announcement. It has to be accessed by the administrator. The benefits of this system are to provide a convenient and effective way to submit the senior project documents, correct the wrong student information, and track the senior project submission status.

According to (Miñon et al., 2016,) Universities typically hold large amounts of documents that contain important and sensitive data. Manual submission of papers to offices reveals that they are subjected to being unmonitored, misplaced, and take a lot of time to be processed if not properly supervised.

The BukSU Capstone Archiving Management system is a web-based application that enables the user to digitize and monitor the capstone projects of third- and fourth-year students during capstone 1 proposal until capstone 3. The main purpose of the system is to help the user in monitoring every phase of the capstone projects of undergraduate students and archiving the capstone projects of graduate students through OCR. However, the study of the web-based Management System for Senior Project Document Repository and Tracking application focuses only on tracking the senior project submitting status and helps students keep track of the senior project process, as well as the deadline for each process and they, did not use optical OCR, which can automatically convert images or scanned documents into text and It can also minimize the accuracy of time spent on scanning the documents which were used in this study.

The study of (Isip, 2017) the Electronic Document Management System was developed using Microsoft Visual BASIC 6.0 that was capable of managing documents or text files. The system adopted the functions of searching and retrieval of documents. The study differs in the platform used since the present study developed a document management system (DMS) using

PHP as a scripting language. It is a system used to receive, track, manage and store documents and reduce paper.

The study of Electronic Document Management Systems was developed using Microsoft Visual Basic 6.0, an old version of the platform. And they did not use OCR, which was used in the developed system. However, the Archiving Management System for the BukSU IT Department was developed using PHP version 8.1.2. for the back-end, and Vue.js 3, Bootstrap 5, CSS, HTML 5, and jQuery are used for the front-end components. The proponents also used MariaDB version 10.4.22 as a database for storing data. The system was developed to replace the existing manual format for storing capstone projects.

According to the study (Ugale et al., 2017,) paperless document management systems are used to eliminate the losses that businesses suffer because of physical paper files and filing systems just like in NFA. This paper describes different steps for processing different documents using scanning, tagging, and indexing for effective data retrieval with OCR and indexing techniques. The proponents of the Capstone Archiving Management System of BukSU IT Department also enhanced the same concept. However the system focuses on capturing, storing, and retrieving approved and monitored capstone projects of third- and fourth-year students in the information technology department. Users who are not part of the BukSU IT Department cannot sign up and upload files to the system. In addition, the archive system has no limitation when it comes to searching for essential information across the whole document. When using this system, only administrators will be able to manipulate the archive database. This is to avoid data entry inconsistencies and errors.

## 2.2 Local Literature

According to (del Rosario et al., 2016) Thesis Portal with an electronic document management system helps in managing documents electronically and provides security of information. The system is divided into three modules: storing, indexing, and searching and retrieval. The store handles the storage of approved proposal documents, thesis documents, teaser videos, request forms, and other documents uploaded in the digital repository. However, the BuKSU Capstone Archiving Management System helps the faculty and students in monitoring the existing and in-progress capstone projects and it serves as a solution to the

users in order to avoid the repetition of proposals and analyze any gaps in their capstone projects. It would also help the BuKSU IT Department to keep records of physical documents through its Archiving System in case of disappearance or physical damage. And users who are not part of the BuKSU IT Department cannot sign up and upload files to the system.

The Study of (Gilles, 2019) is an Online Thesis Archiving System for the University of Makati that helps students, faculty, or whoever is in need to easily access theses. Users can access the system even if they are away from the school since it is an online system. Users would register by filling up the registration form. Upon registering the system, it would send email verification to the user for security purposes. The system has the features of searching and previewing full thesis and abstracts. Users can also download the thesis. The search has been filtered by title, author, subject matter, year submitted, and program title. Users will be able to know what the most viewed thesis is. For the tools, they have used Sublime Text 3 for the front-end tool using PHP, HTML, CSS, and JavaScript. MS Office 2016 is required in software for documentation purposes. They also used CamScanner for scanning documents. After capturing a sample hardcopy of the thesis the researcher imports the picture in CamScanner and edit, after editing the pictures it will be saved as a PDF form. This will be saved in the database of the system. CamScanner helps researchers to digitize the theses that are in the library. The System needs a browser since it is an online system. Google Chrome is the browser that the researcher used.

The BuKSU Capstone Archiving Management System will enhance the same concept as Online Thesis Archiving System for University of Makati study. However, users who are not part of the BuKSU IT Department cannot sign up and upload files to the system. The proponents also used a phone camera or webcam to take a picture of the document, and with the help of OCR , it can automatically convert images or scanned documents into text. It can also minimize the accuracy of time spent on scanning the documents. The proponents used Laravel 9 (version), a PHP framework for software development. Vue.js 3 and jQuery are JavaScript frameworks used for front-end scripting. Bootstrap 5 and HTML to design the look and feel of the frontend UI. And with help of this system the user can monitor the capstone projects during the title proposal until the study is published in order to avoid repetition of studies. This web-based application is designed and only available in Bukidnon State University.

The aforementioned studies served as a reference and aided the developers of BukSU IT Department. It serves as a solution to the users in order to avoid the repetition of proposals and analyze any gaps in their capstone project. It is responsible for improving the consistency of the document process in this web-based system. In addition, the system helps the user to manage and maintain the records of all capstone projects for IT graduate and undergraduate students at BukSU. TheBukSU capstone archiving management system enables the user to digitize the capstone project in the BukSU IT Department by using OCR, which can minimize the accuracy of time spent on scanning the documents rather than manual input.

Additionally, the system had a feature of monitoring for the adviser, instructors, and panelist in order to monitor the progress of every phase. First is capstone one, which contains revised chapters one, two, and three; action done matrix; MOU between Advisor and Adviser (filled data with signature of students; no need for the signature of the teachers but their info must be filled up as well); Adviser appointment form; powerpoint presentation; recorded proposal presentation; recorded proposal presentation; file containing the screenshot of the gcash payment to the panel; and a file containing the screenshot of the acceptance of the panel to the revision done to chapters 1-3. And lastly, the panelist's ratings of the students' performances and submission of documentation will be used by the instructors to generate their final grades. For capstone two, which is prototyping, the students upload a pitch video that contains an explanation of what their capstone is all about and how important their capstone project is to their client and to the users. Also, they need to upload their system demo recorded video/recording of the live demo during defense, minutes of the prototype defense, action done matrix of the prototype defense, adviser appointment form, file containing the screenshot of the GCash payment to the panel, and a file containing the screenshot of the acceptance of the panel to the revision done to the system. Moreover, the panelist's ratings of the students' performances and submission of documentation will be used by the instructors to generate their final grades. Lastly, for capstone three, the final documentation and final defense are completed. The panelist's ratings of the students' performances and submission of documentation will be used by the instructors to generate their final grades. The purpose of this feature is to prevent the students from being behind in each phase of the capstone project. That's why, in order to avoid a redundant study, the Archiving Management System enables users to monitor and manage the capstone projects of BukSU IT Department students during the title proposal until the study is published.

### Matrix of comparative summary of related studies/software/applications

Name of Application	FEATURES							
	Monitoring	Searching	Image to text conversion via OCR	PDF file Upload	Rating	Topic suggestions	Archiving	Embed links of google docs and youtube for course file and video.
Archiving, Document Management, and Records Management		<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	
An Intranet-based Document Management and Monitoring System framework: A case for the National University Quality Management Office	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
CollaborateIT: A CCS IT Thesis Portal with Electronic Document Management System	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	
MySRT management system for senior project document repository and tracking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	
Document management system: A notion towards paperless office		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
Web-Based Documents Management and Tracking System	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>	
Abstract of Online Thesis Archiving System for University of Makati	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	

**Table 1.0 Representation table of the Related Literature**

Some of the features from the studies listed in Table 1.0 are similar to the features developed for the study of the proponents, such as uploading images for text conversations using OCR, archiving the capstone projects, searching and retrieving documents, and monitoring and digitizing the capstone project. However, the proponents strongly believe that the developed study is still unique as the BuKSU Capstone Archiving Management System was developed to monitor undergraduate students' progress on their capstone project in each phase from capstone 1 to capstone 3. The reviewed study does not include features such as uploading PDFs for final manuscripts, the secretary's ability to upload minutes, topic suggestions, visualizing data, or a dashboard. The system also included features for capturing capstone data, such as panelists, advisers, proponents, instructors, secretaries, a github link, a YouTube embed link, and a Google document embed link from capstone 1 to capstone 3, such as manuscripts, done matrixes, and so on. Furthermore, the developed system captures capstone project abstracts and serves as a solution for users to avoid proposal repetition and analyze any gaps. And lastly, the developed study is only available to the IT Department at Bukidnon State University.

## 2.2 Conceptual Framework

A conceptual framework is a visual representation in research that helps to illustrate the expected relationship between cause and effect (Toolshero, 2022). The proponents use an Input-process-output model to give emphasis to the research process which is the appropriate visual diagram for the conceptual framework.

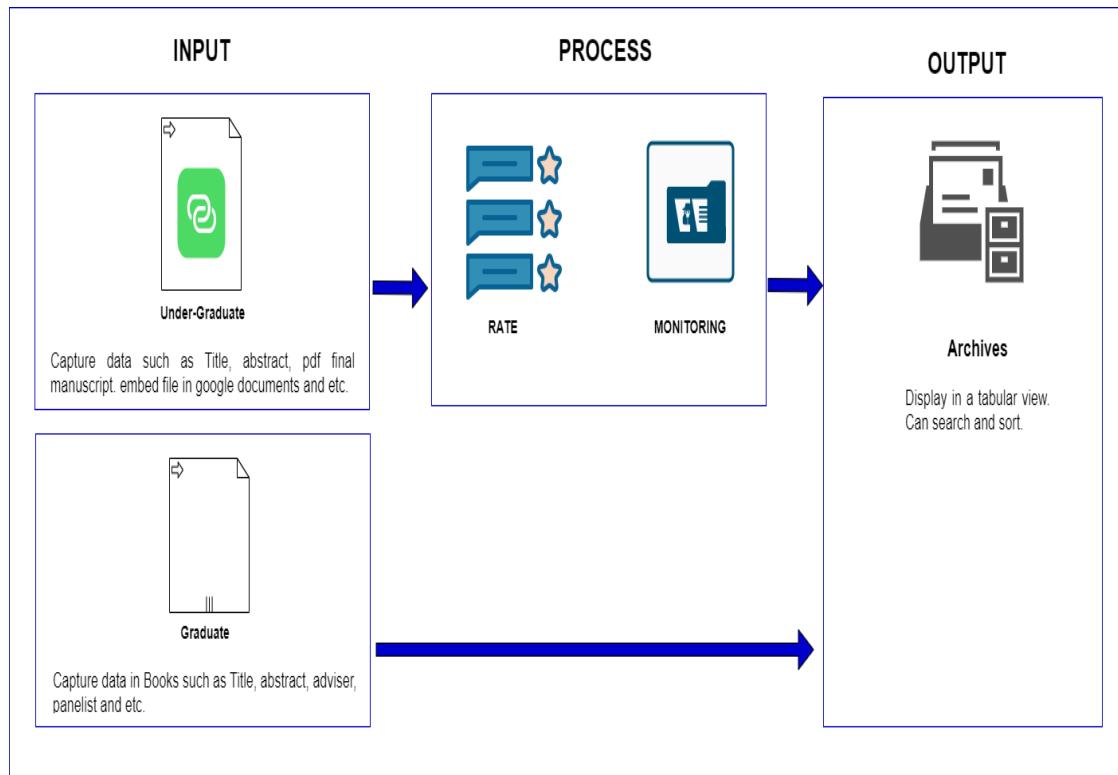


Figure 1. Conceptual Framework: *BukSU Capstone Archiving Management System*

Figure 1, describes the conceptual framework of the study. It tells the mechanism of how the system works and the course and outcome of each process. After logging into the website, the undergraduate students capture the necessary data such as the course file of their capstone projects in every phase. The faculty can monitor the progress of the capstone projects captured by the students and can be rated by the panel of the study. For the graduate students, the administrator captures the necessary data of their capstone projects through the use of OCR. And then all capstone projects can be viewed from the archives through searching the related information of the study.

## **Chapter 3**

### **METHODOLOGY**

This chapter presents the general method used and applied for this study. First, this chapter discusses the research design conducted for this study, explaining how the chosen method would aid the research as it progresses. Secondly is the process model; this segment explains the processes and procedures used. Finally, the research method states the different techniques used to gather data related to the study.

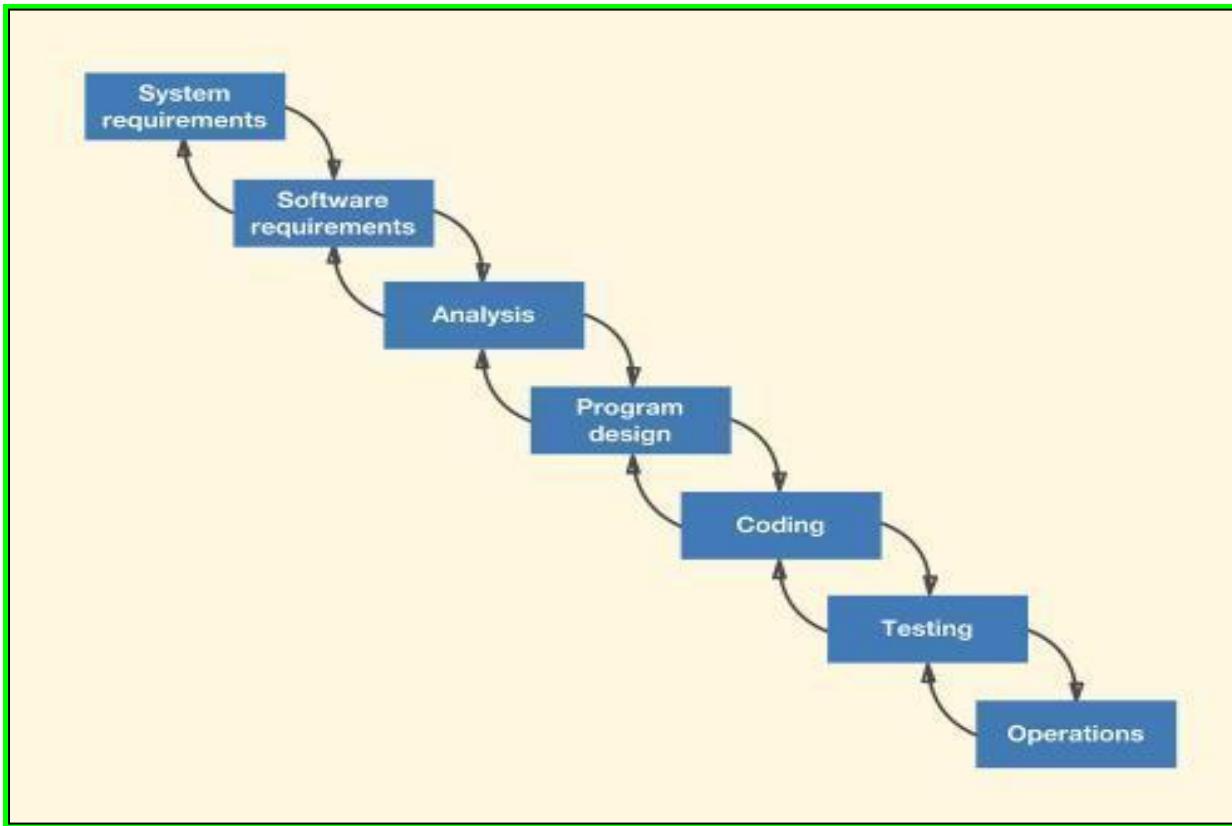
#### **3.1 Research Design**

The proponents use Developmental Research as a research design for BukSU Capstone Archiving Management System. Developmental research, as opposed to simple instructional development, has been defined as the systematic study of designing, developing, and evaluating instructional programs, processes, and products that must meet criteria of internal consistency and effectiveness. (Richey, n.d.)

Developmental research is particularly important in the field of instructional technology. The most common types of developmental research involve situations in which the product-development process is analyzed and described, and the final product is evaluated. (Richey, n.d.).

#### **3.3 Process Model**

The proponents will utilize the modified waterfall model of the system Development Life Cycle (SDLC) for the Process Model. This Modified Waterfall Model has been modified to add a feedback system between stages so that if any problems are found at one phase, they can cause remedial action to be taken at the previous phase. This feedback system helps previous phases correct errors or problems. This modified waterfall model is also referred to as the iterative waterfall model (Prashant., 2022.)



**Figure 2. Modified Waterfall Process Model: BuKSU Capstone Archiving Management System**

Figure 2 shows the Process Model of BukSU Capstone Archiving Management System. The proponents took advantage of the process model by developing a simpler version of the system and gradually enhancing it with the feedback system between stages. This system enables the user to monitor the existing capstone project, digitize the physical documents and capture each document in every phase of the study.

Our method for the development of our program is first, the proponents have to determine the system requirements used to develop the program and take an analysis of the flow of the program. They have determined that the program will have three end-users that can login into the system. These are the administrator, faculty, and IT students.

Second, the user will be navigated to the login page upon opening the application. The user can choose among two (2) options: whether to login or sign up. If the user chooses to log in, they can put in their email and password to log in. And if the user chooses to sign up, they can put the needed data in to make an account, such as name, email, password, and role. Each

user can choose among two (2) roles, whether a faculty member or a student. Every role has a different UI and tasks if they are logged in.

Third, the proponents developed a website application using Object-Oriented Programming (OOP). Laravel, tesseract, bootstrap, sweet alert2, and font awesome were also used to enhance the system's UI and UX. This application uses a database since it accepts multiple inputs. Multiple users can access the database based on their role. The database holds all the data, such as users and capstone data from capstone one to three.

Lastly, testing has been conducted to find errors and suggestions. Then they proceeded with the operations in order for the system to be fully approved and ready for production.

### 3.4 Requirements Analysis

Requirements Analysis is the process of defining the expectations of the users for an application that is to be built or modified. It involves all the tasks that are conducted to identify the needs of different stakeholders. Therefore requirements analysis means to analyze, document, validate and manage software or system requirements (ReQtest, 2018).

#### 3.4.1 Functional Requirement

The functional requirements describe the ways a product must behave and the non-functional requirements also known as quality attributes describe the general software characteristics. (*Functional and Non-Functional Requirements: Specification and Types*, 2021).

##### Functional

- Authentication for faculty and students
- Capture capstone course file through google docs embed link
- Capture scanned images for text conversion using OCR
- Searching for a specific topic
- Create topic suggestions
- Get a study from suggested topic
- Panel can rate the capstone on each phase
- Managing data: Create, Read, Update, and Delete for Administrator.

#### **Non-functional**

- Error message for invalid or wrong input in authentication
- Prompt message will display for all invalid and successful input
- The system should be accessible in laptops and personal computers
- Doesn't take time to load when the internet connection is stable

### **3.4.2 Hardware and Software Requirement**

#### **3.4.2.1 Software**

In order to construct the web-based application for this project, Vue.js 3, Bootstrap 5, CSS, HTML, and jQuery were used for its front end. And for the back-end the proponents used Laravel version 9 a PHP framework for software development mainly PHP version 8.1.2. PHP is a server-side scripting language designed for web development and used as a general-purpose programming language. This serves as the proponents' local server in order to test the data and run the archive system. And mariaDB version 10.4.22 was used as a database for storing data. The system was hosted in 000webhost.com where the mysql database is integrated.

#### **3.4.2.2 Hardware**

The hardware requirements of the study should be any device such as laptop or desktop to facilitate the execution of the system. Additionally, the system uses a camera for OCR to digitize and convert images to text. The system was built using a laptop device with a 64-bit operating system, an x64-based processor, and 8.00 GB of random-access memory, followed by the processor, which is an 11th Gen, Core (TM) i5-1135G7 @ 2.40GHz and 2.42 GHz, and 475 GB of Solid-State Drives (SSD). For the system to perform well, the server requires a minimum of 2GB RAM, a quad-core processor, and a core i3 processor.

### **3.2.3 Analysis**

For this phase, the proponents gather all the necessary requirements for the Archiving Management System and focus on collecting the necessary data related to this topic by identifying the end-users of the department's needs by asking questions regarding the system they are currently using in their archival system and what might be processed in the right way in providing an archival system for their capstone project. These requirements also help the development team and client to ensure they are working to achieve the same goals.

The proponents also utilize surveys to ask about what difficulties they are experiencing with their current use and also inquire about what improvements they would like to see if they choose to use our project, the web-based Archiving Management System of Capstone Project for BukSU Information Technology Department.

The archiving management system would capture each phase from capstone 1 which contains revised chapters 1-3, action done matrix, MOU between Advisor and Adviser (filled data with the signature of students, no need for the signature of the teachers but their info must be filled up as well), Adviser appointment form, PowerPoint presentation, recorded proposal presentation, a file containing the screenshot of the Gcash payment to the panel and a file containing the screenshot of the acceptance of the panel to the revision done to chapters 1-3. And lastly, the panelist's ratings of the students' presentations and submission of documentation will be used by the instructors to generate their final grades.

For capstone two, which is prototyping, the students upload a pitch video that contains an explanation of what their capstone is all about and how important their capstone project is to their client and to the users. Also, they need to upload their system demo recorded video/recording of the live demo during the defense, minutes of the prototype defense, action done matrix of the prototype defense, adviser appointment form, file containing the screenshot of the GCash payment to the panel, and a file containing the screenshot of the acceptance of the panel to the revision done to the system. And lastly, the panelist's ratings of the students' presentations and submission of documentation will be used by the instructors to generate their final grades.

And then for capstone three, the final documentation and final defense should be completed. Together with the approved chapters 1-5, video presentation, minutes of the final defense, action done matrix of the final defense, and Github link for the source code. And also the panelist can view the specific project and then can give a grade to the students. The purpose of this feature is to prevent the students from being behind in each phase of the

capstone project. And lastly, the panelist's ratings of the students' performances and submission of documentation will be used by the instructors to generate their final grades.

For storage requirements, the proponents need to consider how much web hosting storage space their site is going to use, as it will cost them more money to run the site if it is heavily loaded with content.

The proponents estimated that websites typically don't need much web hosting space, as they don't have huge resource demands. They are usually loaded with text and some files. And each page should stay within certain limits and not exceed 2MB, otherwise, it could take too long to load up on an average internet connection. Most websites don't need more than 1 GB of space, with blog sites typically coming in at around 700-800 MB of disk space. (Conger, 2022).

### **3.5 Design of Software, Systems, Product and/ or Process (Flowchart, DFD, Use Case, Activity and Sequence Diagrams, Software Evaluation Questionnaire)**

The data and information gathered and analyzed in the previous phase are used to construct and illustrate the structure of the system. Systems design could be seen as the application of systems theory to product development. Similarly, the system design of the system is presented according to the use-case diagram, flowchart, and context diagram of the system.

#### **3.5.1 Process flow Diagram**

A process flow diagram (PFD) is a type of flowchart that represents the integrity of equipment and plant operations. This graphic chart depicts a link among the principal equipment of a facility. Nevertheless, it does not cover minor details such as designations and plumbing (Guide, n.d.).

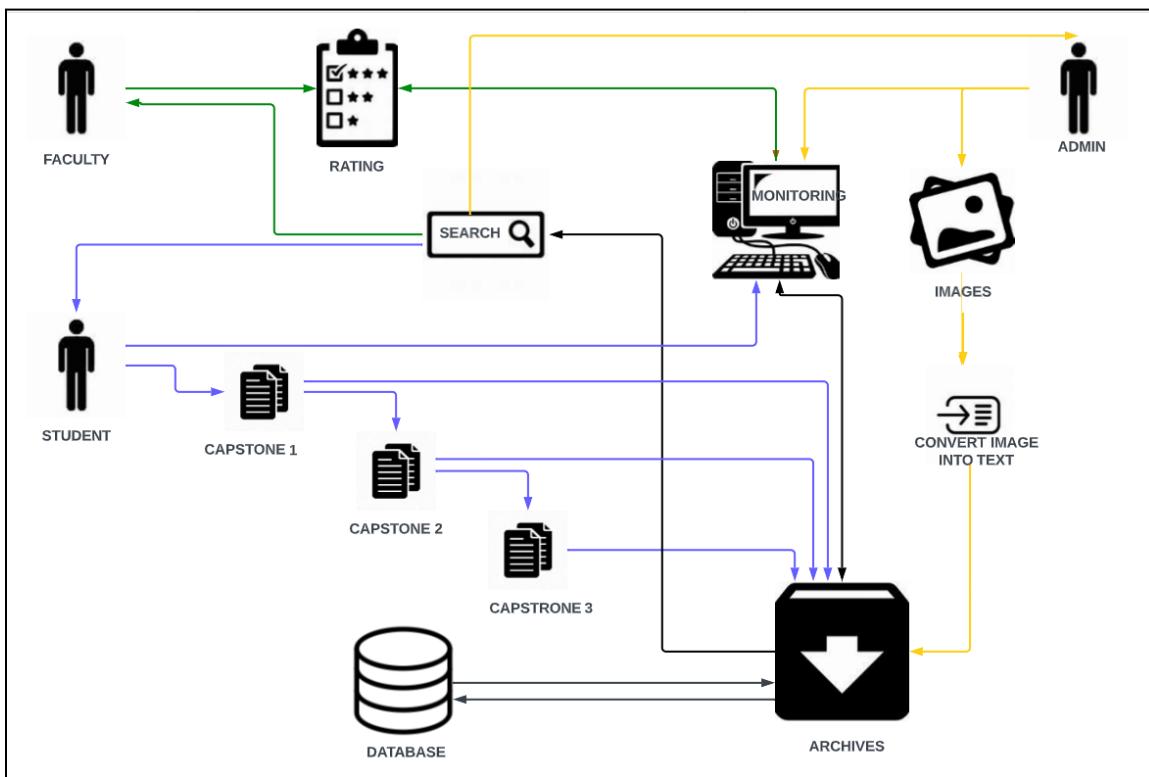
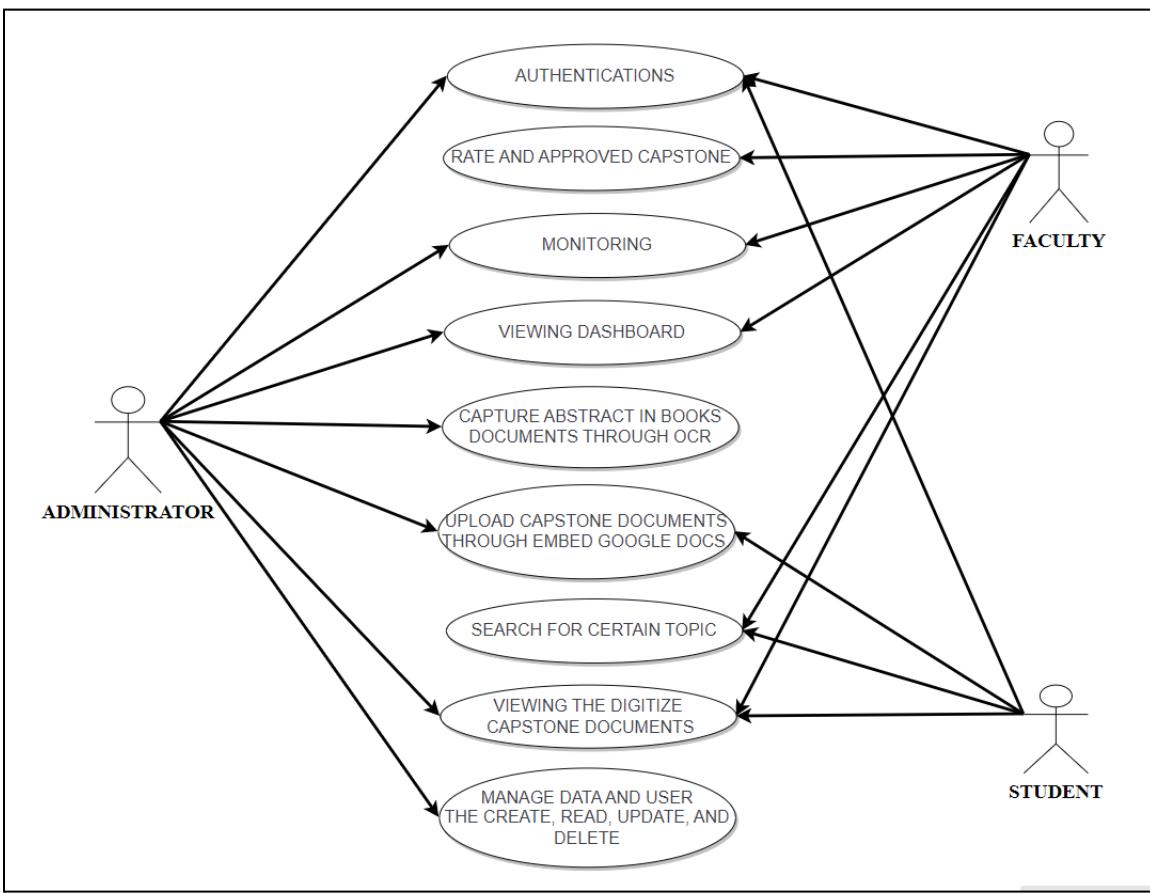


Figure 3.1. Process Flow Diagram: BukSU Capstone Archiving Management System

Figure 3.1 shows the flow system from opening the website, the end user will sign up and login in accordance to their roles. The administrator will be able to archive, monitor the users and the capstone projects stored in the system. The students will be able to capture each phase of their capstone projects and view the archived projects. The faculty will be able to rate each phase of the student's capstone projects and then monitor its progress. They can also search and view the archived projects. Lastly, only the administrator will be able to upload images from the hard copy and the system's OCR technology will convert it into text form and store them in the database. The database will store all the transactions for retrieval and reports.

### 3.5.2 Use-case Diagram

The purpose of a use case diagram in the Unified Modeling Language (UML) is to demonstrate the different ways that a user might interact with a system (*UML Use Case Diagram Tutorial*, n.d.).



*Figure 3.2 Use-case Diagram: BukSU Capstone Archiving Management System*

Figure 3.2 shows the Use-Case Diagram of the system will have three actors that interact with the Archiving Management System. These are the administrator, faculty and student. All users must be authenticated to be able to view the digitized capstone projects, and even search certain topics by utilizing the search bar. The faculty can rate and approved the capstone project uploaded by the students. While the administrator can capture scanned documents using OCR technology. Both administrator and faculty can monitor the data with the use of dashboard. Then both students and administrator can upload embed links of capstone documents. Only the administrator can manage data and users in the system.

### 3.5.3 Flowchart

A flowchart is a type of diagram that represents a workflow or process. A flowchart can also be defined as a diagrammatic representation of an algorithm, a step-by-step approach to solving a task (Heiliger, n.d.).

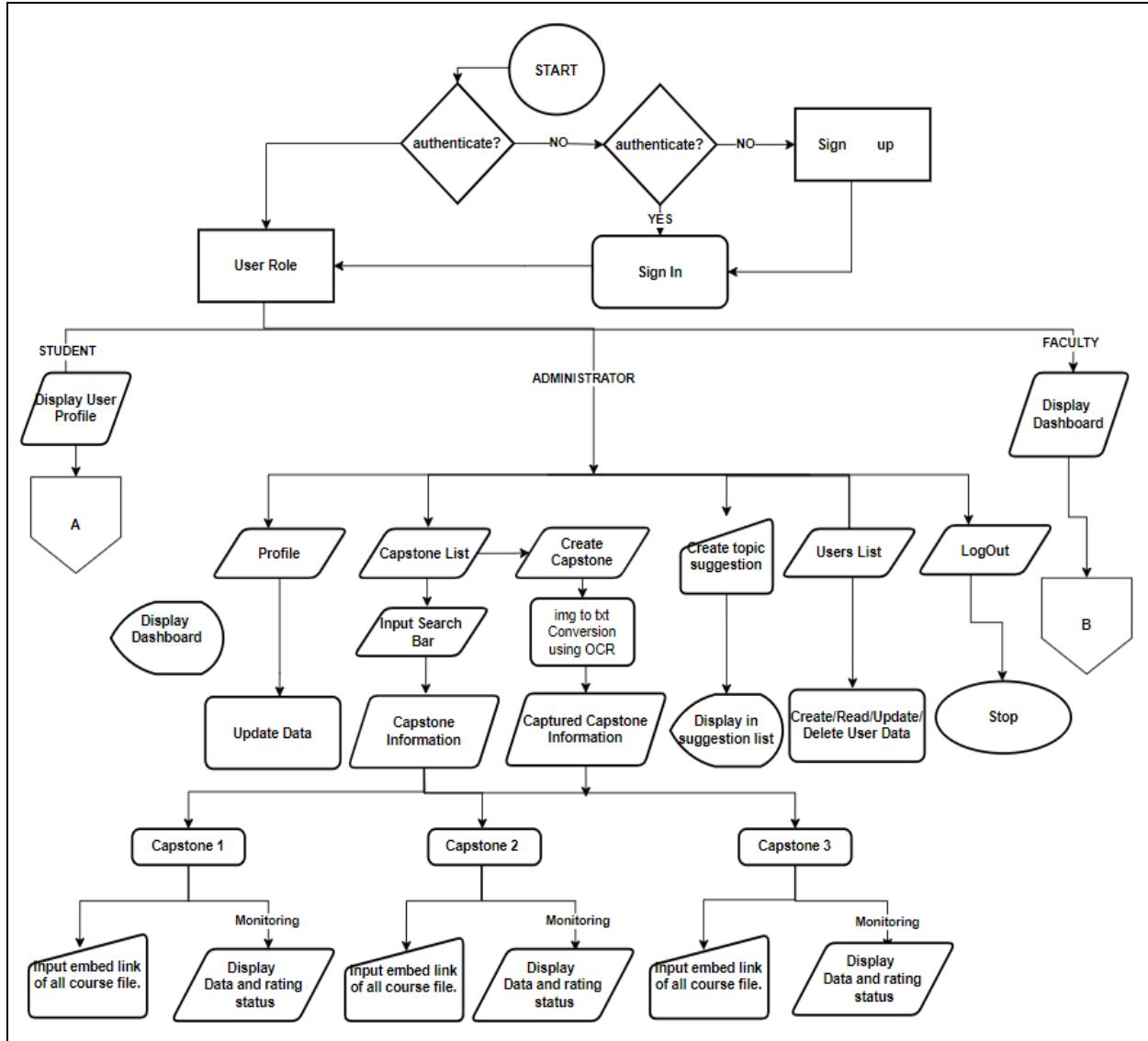


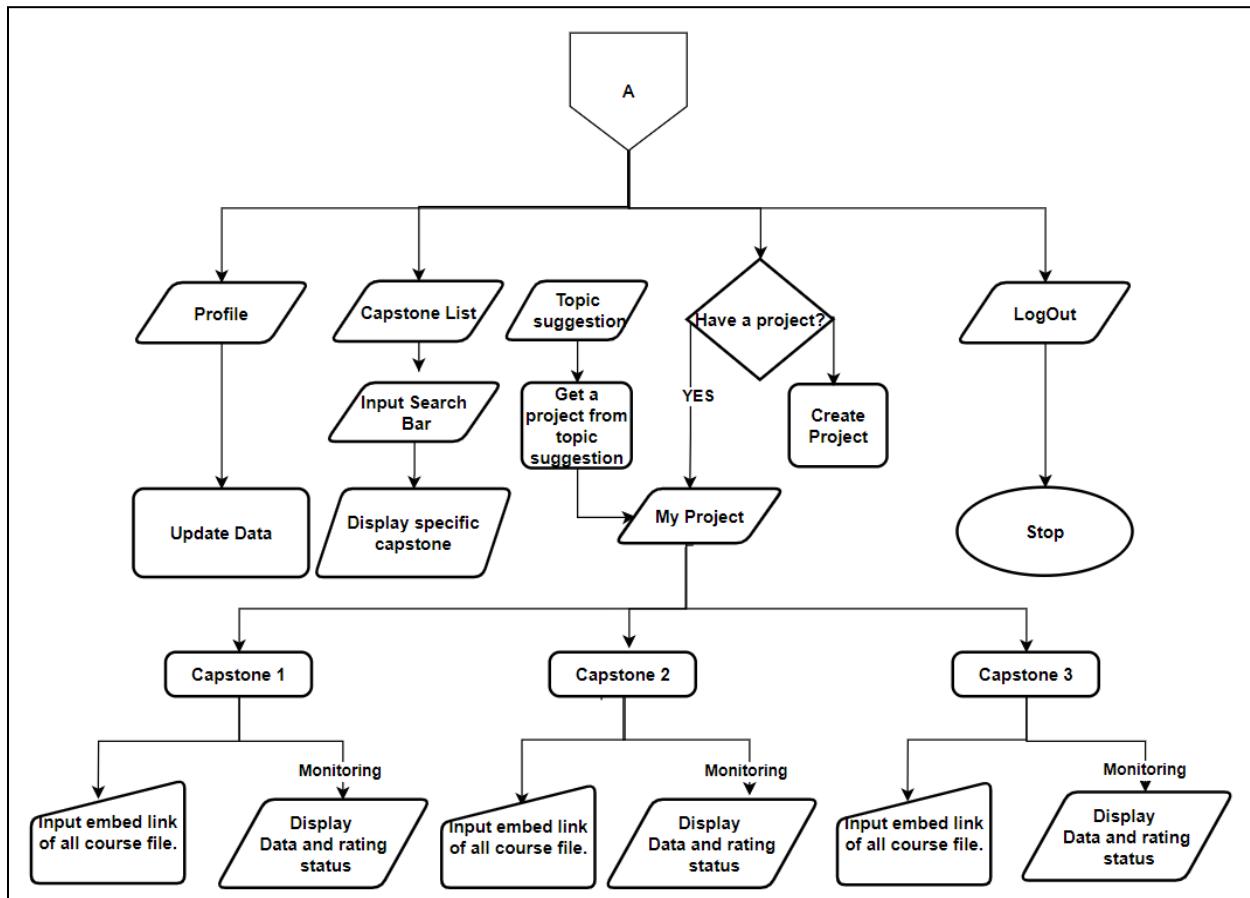
Figure 3.3 Flowchart for administrator module: BukSU Capstone Archiving Management System

Figure 3.3 shows the flowchart of BukSU Capstone Archiving Management System.

There is an authentication for the user of the system. If the user is not authenticated, they still

need to sign up to be able to sign in. There are three end-users of the system, these are the administrator, faculty and student. They can login and logout after being authenticated.

First, the administrator can monitor the overview of data stored in the database through the dashboard system. The administrator can update its profile and can create, read, update and delete the user's data. The administrator can create a capstone project using OCR. Also it can view the capstone list and search related information of the capstone project. It can delete the entire project or update each phase of the project by inputting the required data and monitor the project's status. The administrator can create topic suggestions and will be displayed in the



suggestion list.

Figure 3.4 Flowchart for student module: BukSU Capstone Archiving Management System

Figure 3.4 shows the flowchart of the system for the student. First, the student can update its profile. The student can view the capstone list and search related information of the capstone project. The student can create capstone project but if the student doesn't have any project yet, it can get topic from the suggestion list and make it as its own project. Then it can update each phase of the project by inputting the required data and monitor the project's status.

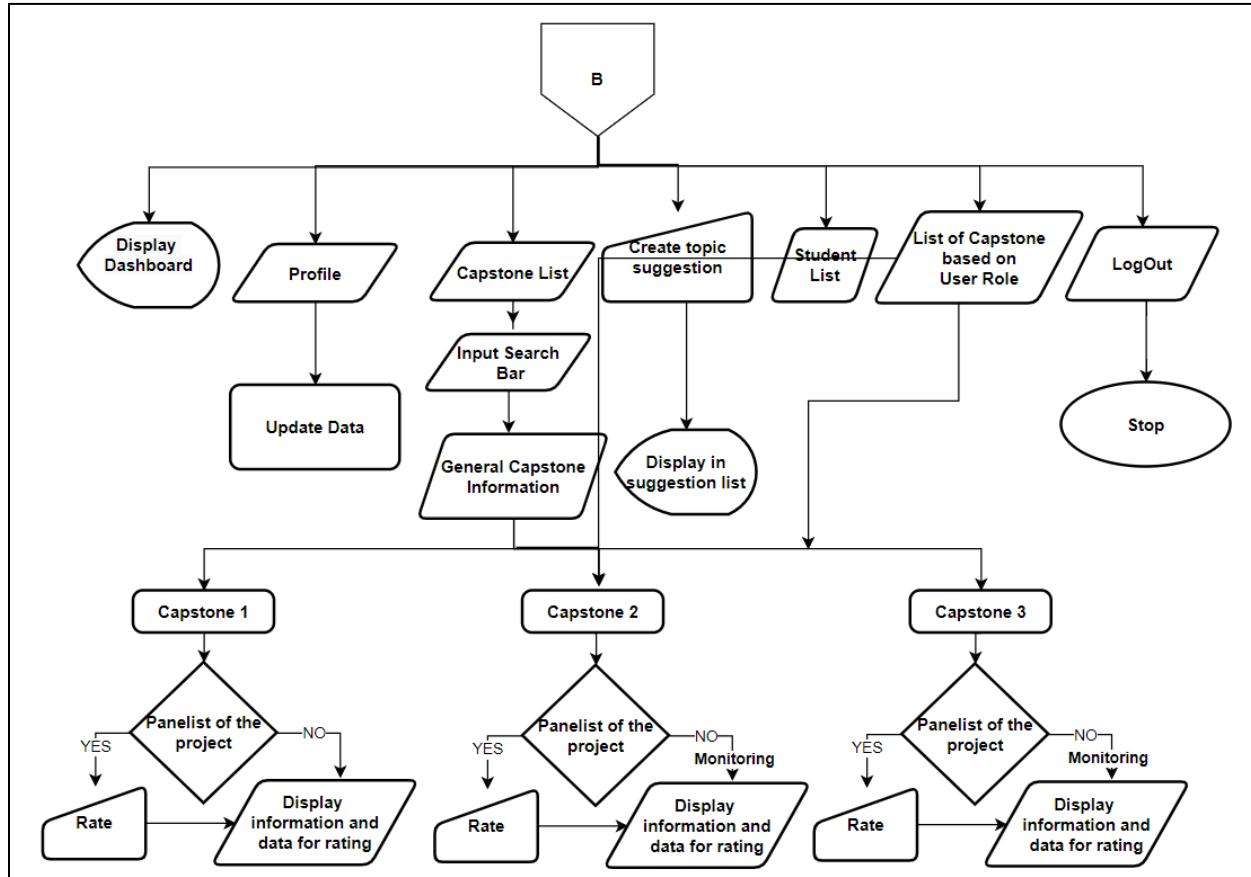


Figure 3.5 Flowchart for faculty module: BukSU Capstone Archiving Management System

Figure 3.5 shows the flowchart of the system for the faculty. First, the faculty can monitor the overview of data stored in the database through the dashboard system. The faculty can update its profile. The faculty can view the capstone list and search related information of the capstone project. If the faculty is a member of the panel in capstone project, it can rate each phase of the project if not then it can only view the displayed information and rating status of the

capstone project. The faculty can create topic suggestion and will be displayed in the suggestion list.

### 3.5.4 Data Flow Diagram

A data-flow diagram is a way of representing the flow of data through a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself (*Data-Flow Diagram*, n.d.)

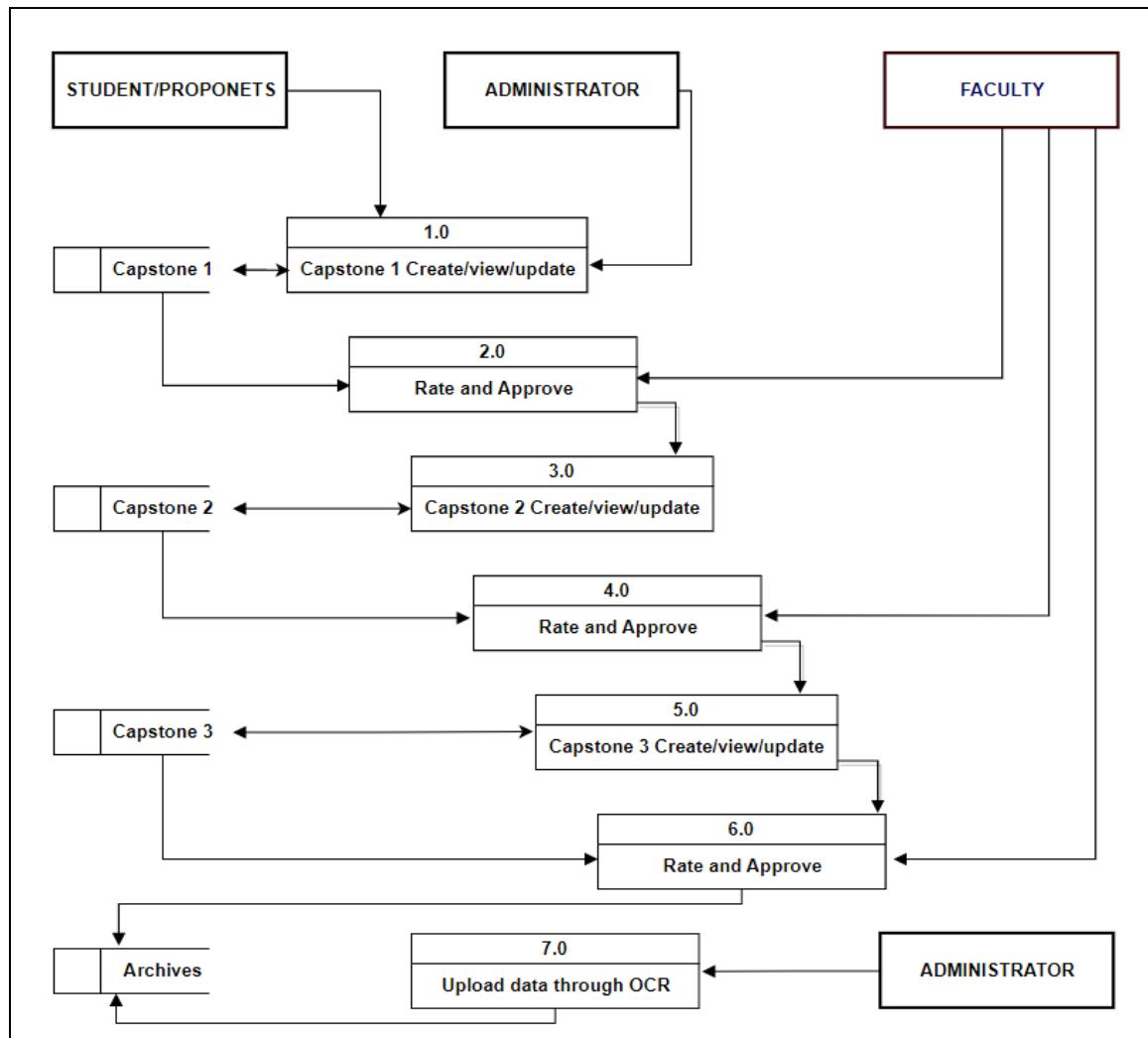


Figure 3.6 Level 1 - Data Flow Diagram: BukSU Capstone Archiving Management System

Figure 3.6 displays the Data Flow Diagram (DFD) of the system. The student and administrator can create, update and view their capstone projects in every phase. Then the faculty can rate and approve the capstone projects of the students. The administrator can also upload capstone projects' data through OCR technology. If the capstone projects are approved, the status will be marked as completed. After completion, the capstone projects can be viewed and all the data and updates will be stored in the database.

### Evaluation Questionnaire

Name:	
Date:	

**Instructions:** Please indicate your level with each of these statements regarding the Archiving system. Please write "/" in the box of your answer. Very Strongly Agree(5), Strongly Agree(4), Agree(3), Disagree(2), and Strongly Disagree(1)

	Question	Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree
Functional Suitability	Functional Completeness. The system covers all the specified tasks and user objectives.					
	Functional Correctness. The system provides the correct results with the needed					

	degree of precision.				
	Functional Appropriateness. The system facilitates the accomplishment of specified tasks and objectives.				
Performance Efficiency	Time Behaviour. The system's response and processing times and throughput rates when performing its functions, meet requirements.				
	Resource Utilization. The system's amounts and types of resources used when performing its functions, meet requirements.				
	Capacity. The system's maximum limits of parameters meet requirements.				
Compatibility	Co-existence. The system can				

	perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product.				
	Interoperability. The system can exchange information and use the information that has been exchanged.				
Usability	Appropriateness Recognizability. The system allows users to recognize if it is appropriate for their needs.				
	Learnability. The system can be used by specified users to achieve specified goals of learning to use the application with effectiveness, efficiency,				

	freedom from risk and satisfaction in a specified context of use.				
	Operability. The system has attributes that make it easy to operate and control.				
	User Error Protection. The system protects users against making errors.				
	User Interaction Aesthetics. The system's user interface enables pleasing and satisfying interaction for the user.				
	Accessibility. The system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.				
Reliability	Maturity. The system meets the needs for				

	reliability under normal operation					
	Availability. The system is operational and accessible when required for use.					
	Fault Tolerance. The system operates as intended despite the presence of hardware or software faults.					
	Recoverability. The system can recover the data directly affected and re-establish the desired state.					
Security	Confidentiality. The system ensures that data are accessible only to those authorized to have access.					
	Integrity. The system prevents unauthorized access to, or modification of, computer					

	programs or data.					
	Non-repudiation . The system can be proven to have taken place, so that the events or actions cannot be repudiated later.					

### 3.6 Coding

The implementation of the system development phase is the stage where the system will be developed using different technology tools and components.

The proponents developed a web-based application using the Laravel framework version 9, the tool that provides for the development of the system. The language for constructing the system will be PHP version 8.1.2. PHP it is a server-side scripting language designed for web development and used as a general-purpose programming language. (SPINX - Los Angeles Web Design Agency, n.d.) MariaDB version 10.4.22 will be used as a database for storing data. And on the frontend are Vue.js 3, Bootstrap 5, CSS, HTML and jQuery. This will serve as the proponents' local server in order to test the data and run the archive system. And on the frontend side was the Vue js 3, bootstrap 5, CSS, and jQuery. And then the Integrated Development Environment (IDE) was Visual Studio Code.

The Laratrust is a Laravel package by using it, it can let the proponents manage roles and permissions within their web application. Tesseract is an essential component of mobile device text detection frameworks and Google spam algorithms. Tesseract is valuable to ordinary users because it is a command-line program with a fully-featured API. Bootstrap facilitates quick website and web development. It is the most widely used framework in the world for creating responsive, mobile-first web applications. In theory, Bootstrap frees us from having to write a lot of CSS code and allows us to devote more time to building web pages. SweetAlert2 is

a library that is extremely simple to install and use. Its primary function is to notify the user of any information. The alerts are designed to be simple and straightforward. Font Awesome is a type of icon font. Consider a standard font, but instead of letters, you get icons. This is the truly brilliant and game-changing component of the entire scheme. Icons were once a major source of frustration when developing a website.

The proponents used MariaDB as the database system in the development of the archive management system. MariaDB is an open-source relational database management system that can be easily implemented and managed either on premise or via the cloud through a hosting provider. MariaDB provides a way for the client to access a wide range of databases. The Structured Query Language is a set of functions of calls, codes, and data types that can be used to develop database independent applications. SQL will be used in building and creating the database.

### 3.7 Testing

The purpose of the testing phase is to determine if all the components will work properly or perform as they are designed to expose any possible defects in the system modules which arise after the integration and to check whether the desired specifications and requirements are met or not.

The testing and evaluation process was conducted after the system had been fully developed. A test case is defined below to compare expected and actual results to determine whether the BukSU Capstone Archiving Management System is functioning as per the requirements of the client.

Alpha testing is the initial phase of validating whether a new product will perform as expected (Hanna, n.d.). The alpha testing of BukSU Capstone Archiving Management System was performed by the students and faculty of the BukSU IT Department, under the supervision of the proponents (development team). The proponents took notes of problems and bugs that the end-user encountered.

### **3.6 Operations**

Web Deployment is an extensible client-server tool for syncing content and configuration to XAMPP. The first step is to register their domain name and purchase (or provide) web hosting. They need to have access to DNS record management or know the people to contact, and then set up the DNS records and also make sure that all the settings are correct, and then set up and test the website on the production server (where it will live), and then set up email, and then Back up the old site (if applicable) and last is deploy the new one. (Craig). This system will be backed up on a cloud base. A backup plan might allow an unlimited amount of total backup space but cap *individual* files at 2 GB. (Fisher, 2020). The BukSU archiving management system was temporarily hosted in 000webhost, 000webhost is a free website hosting solution that provides an array of valuable features, including a website builder, WordPress support, and no ads. Users can upgrade to a paid plan to get even more features and support, but based on our reviews, 000webhost is the best free web hosting solution for those who are truly on a tight budget (McGath, 2022). And the URL of the system is [CapstoneArchivingAndMonitoring \(000webhostapp.com\)](https://CapstoneArchivingAndMonitoring.000webhostapp.com).

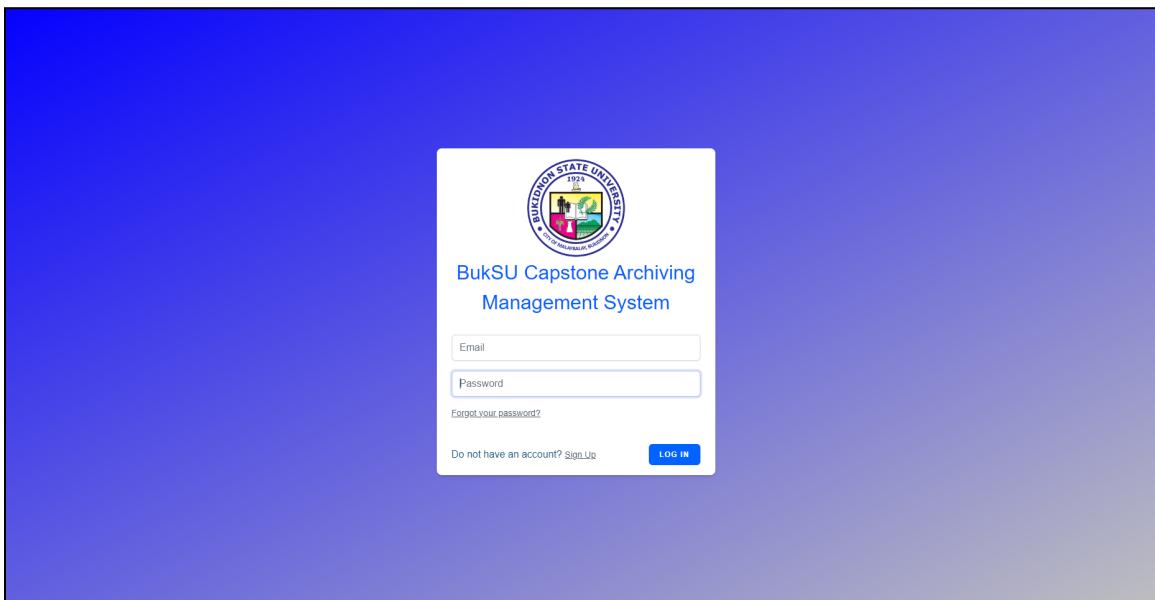
## Chapter 4 RESULTS AND DISCUSSIONS

This chapter discusses the various results performed in testing the different functionality and features of the system developed. The presentation is done by describing the features namely monitoring and archiving.

### 4.1 PRESENTATION OF PROTOTYPE

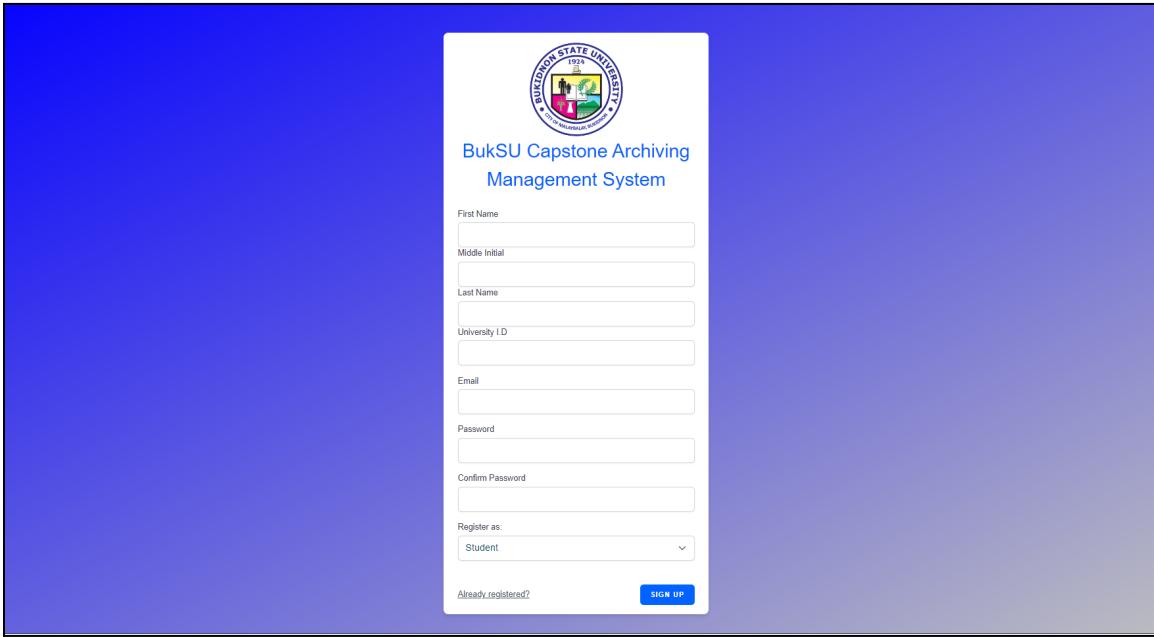
For these software development, a prototype is a rudimentary working model of a product or information system, usually built for demonstration purposes or as part of the development process (TechTarget, n.d.).

#### Authentication



*Figure 4.1 Login Form*

Figure 4.1 shows the Login page of the system. The system's primary security mechanism against intrusion or unauthorized users is this form.



*Figure 4.2 Sign up form*

Figure 4.2 Show the sign up page of the system, Sign up form contains a field of first name, middle initial, last name, university ID, Email, password, type of user field and another for sign up button. University refers to you being a student and faculty in Bukidnon State University. Type of user or Registered as it refers to the role of the user. Sign up button refers to the fact that you already have an account if you click the button.

## STUDENT INTERFACE

The screenshot shows the student profile section of the Capstone Archiving Management System. On the left is a sidebar with icons for PROFILE, MY PROJECT, CAPSTONE LIST, and TOPIC SUGGESTION, and a LOGOUT button at the bottom. The main area has a header "Capstone Archiving Management System" and a user profile picture of a man with yellow flowers in the background. Below the picture, the user's name is Gerald John Sison Admin, and he is associated with the College of Technologies, Bachelor of Science in Information Technology - 5th year, and the email student1@gmail.com. A "PROFILE" section contains fields for University ID (1801100000), Email Address (student1@gmail.com), Password (visible as "student1"), First Name (Gerald John), Middle Initial (Sison), Last Name (Admin), College (disabled, showing COLLEGE OF TECHNOLOGY), Choose Year (5th year), Gender (Male selected), and a file input field for a profile picture (Choose File). At the bottom is a blue "UPDATE" button.

Figure 4.3 Student Profile

Figure 4.3 shows the student profile information. As can be seen in the preceding section, students can view their entered data in this section. You can see that there is data in a particular field in the bottom section where students can update the data they have entered. The student can also change their gender and year level, as well as upload a picture to their profile for the instructor to easily identify them. To save the altered data, click the update button.

The screenshot shows the "MY PROJECT" section of the Capstone Archiving Management System. The sidebar includes icons for PROFILE, MY PROJECT, CAPSTONE LIST, and TOPIC SUGGESTION, and a LOGOUT button at the bottom. The main area displays a message "NO PROJECT FOUND" with a "CREATE PROJECT" button below it, which features a blue icon of a document with a plus sign.

Figure 4.4 Empty project page

Figure 4.4 shows an empty page. The end user can see that there is a button in this section that displays "create project." If they click that button, they can go to the next page where they can create a project.

The screenshot shows the 'Capstone Archiving Management System' interface. On the left, a sidebar features the 'BUKSU' logo, navigation links for 'PROFILE', 'MY PROJECT' (which is highlighted in blue), 'CAPSTONE LIST', and 'TOPIC SUGGESTION'. At the top right, it says 'Student' and 'STUDENT'. The main content area is titled 'Abstract Or Project Descriptions' and contains a text input field labeled 'Abstract'. Below this is a section titled 'GENERAL INFORMATION' with a 'Title' input field. Further down are fields for 'Group Name' (with a dropdown for 'Input Groupname'), 'Project Status', 'Choose Year' (with dropdowns for 'Capstone From' and 'Capstone To', both set to '2022'), 'Panel 1', 'Panel 2', 'Panel 3', 'Proponent', 'Adviser', 'Co-Adviser', and 'Secretary'. At the bottom is a large blue 'SAVE' button. The footer includes a 'LOGOUT' link and a 'Powered by 000webhost' logo.

*Figure 4.5 Creating project page*

Figure 4.5 in this section allows students to create a project. As can be seen, there are various fields, and students can enter particular information into each field to create their capstone project.

**BUKSU**

**MY PROJECT**

**CAPSTONE LIST**

**TOPIC SUGGESTION**

**Capstone Archiving Management System**

**STUDENT**

**Title**  
Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition

**Abstract**  
**Abstract:**  
 This study covers the development of a Web-based Capstone Project Archiving and Monitoring System, which helps the BUKSU IT Department to monitor the approved capstone projects of undergraduate students or third-year and fourth-year students, and also digitize all hardcopy capstone project made by previous students. The system can capture all capstone projects, and serves as a solution to the users in order to avoid the repetition of proposals and analyze any past. The proponents used Laravel 8 (version), a PHP framework for software development. Vue.js 3, Bootstrap 5 and HTML to design the look and feel of the frontend UI.  
 The system has four end-users. These are the administrator, faculty, IT students, and the archiver. The administrator (the one that manages the users, monitor the documents' information, and any files that are uploaded to the system). The faculty are the scholar, co-advisor, secretary, and panel chair who will monitor the capstone project documentation of students. And for the IT students, they would be responsible for viewing the capstone project list, but only the third-year and fourth-year IT students can upload their files after each phase since capstone will start in their third academic year.  
 Lastly, the archiver, who is an authorized person assigned by the BUKSU IT department, can also upload scanned documents. The archive system would capture every phase from capstone 1, the proposal, capstone 2, the prototype, and capstone 3, the final documentation. There is also a dashboard system that allows the users to view all the data in one display. After that, the project and its related files can be viewed online by the students, instructors, and adviser. The capstone project information will include the title, the year the capstone the project was completed, abstract, author, co-author, status, and adviser. Changes are made based on the approval of the administrator, and only documents approved for publication can be viewed. The data is limited to text and images only, and videos are not supported for upload. This web-based application is designed and only available to the IT Department in Bulkliton State University.

**INFORMATION**

Group Name	BugTechnology	Project Status	UNDER DEVELOPMENT	Choose Year	4th year
Adviser	Dems G. Elcarde	Client full name	Jhoney S. Elcarde	Upload final Manuscript (pdf only)	
	Co-Adviser		Garald John Hiponia	Choose File	No file chosen
Panel 1	John S. Bisco	Panel 2	Dems G. Elcarde	Panel 3	Jhoney G. Bisco
					Secretary
					Demal S. Victor

**Proponents**

Proponent 1	Gerald John Silon Admin	Proponent 2	Jhoney Capican Victor	Proponent 3	Phibe Alcaino Billore	Proponent 4	Phibe Alcaino Billore

**Capstone 1** Status: Under-revision  
[VIEW](#) [UPDATE](#)

**Capstone 2** Status: Development  
[VIEW](#) [UPDATE](#)

**Capstone 3** Status: Under-revision  
[VIEW](#) [UPDATE](#)

**Logout**

**Figure 4.6 Project**

**BUKSU**

- [PROFILE](#)
- [MY PROJECT](#)
- [CAPSTONE LIST](#)
- [TOPIC SUGGESTION](#)

Capstone Archiving Management System

**CAPSTONE 1**



**HOW TO EASILY GET YOUTUBE EMBED CODE**

Watch on [YouTube](#)

**HOW TO GET EMBED LINK ON YOUTUBE**

**Guide to Add link**

1. Upload Your pitch video of capstone 2 in YouTube.
2. Get link in your video through SHARE then tap embed.
3. Get the `src=""` link, sample is the colored text below:

```
<iframe width="640" height="315" src="https://www.youtube.com/embed/AbRk5r_iRWQ" title="YouTube video player">
    <!--> allow="accelerometer, autoplay, clipboard-write, encrypted-media, gyroscope, picture-in-picture"
    <!--> allowfullscreen </iframe>
```

4. COPY that embed link then PASTE in text box above.

**Embed a Google Doc on a Website**



**Embed a Google Doc**

**HOW TO GET EMBED LINK ON GOOGLE DRIVE**

**Guide to Add link**

1. Upload Your Documents to Google drive.
2. Tap File in navbar then hover share and tap publish to web.
3. Tap publish and also tap the Embed

```
<iframe src="https://docs.google.com/document/d/e/2PACX-1vQcbThgknMjD53cvBretA-55e3XQbnz-E5dBSIuWDYvgSNPjZRsSHkmI6RP6lkJw/pub?embedded=true"></iframe>
```

4. COPY the embed link that highlight above

Gerald John Simon Adams  
STUDENT

**EMBED LINKS:**

- Resumed Manuscript of Chapter 1.3 (DOCX)**  
<https://docs.google.com/document/d/e/2PACX-1vQkLnGwtRYmCRFk7x0tMEUvvTaMpI2VsO2Sp7grf76Pdk7Y9g9l27G09Hdyun98A/pub?embedded=true>
- ADS - Business Activities and Advertis (DOCX)**  
<https://docs.google.com/document/d/e/2PACX-1vR06Gkgp6ouIZ7hkidC-w7vnb3ENNE-Sax8LOAV2B1tg5tVgipVE2MdxEhY/G1dJUGzUzQJ-oBWbcSKpub?embedded=true>
- Capstone Project Title Proposal Form (DOCX)**  
[https://docs.google.com/document/d/e/2PACX-1vSgJfFVwpel\\_kcQIQ\\_wvGg3d256F-8JN91mpToEc-2Q29z5B1mZsi-4NC5zAkQipub?embedded=true](https://docs.google.com/document/d/e/2PACX-1vSgJfFVwpel_kcQIQ_wvGg3d256F-8JN91mpToEc-2Q29z5B1mZsi-4NC5zAkQipub?embedded=true)
- Resumed Presentation (PPTX)**  
<https://docs.google.com/presentation/d/e/2PACX-1vQbGDybm8AtqoZEEfR3duCa9sRLq9nCvEd40Af7nTFJ3tcPcYMrkCb3p3C73wWk2l21-ye3ppHUf/embed?start=false&loop=false&delayms=3000>
- Resumed Proposal Presentation (PPTX)**  
[https://www.youtube.com/embed/AbRk5r\\_iRWQ](https://www.youtube.com/embed/AbRk5r_iRWQ)
- Minutes of the Proposal Defense (DOCX)**  
<https://docs.google.com/document/d/e/2PACX-1vQd974dBWidfZQzV21he8tWZ05LHO56MMFxgVLWRpQ5bXBKcc279Fobt6ImqzYipub?embedded=true>
- Acceptance of the acceptance of papers to the revision done to chapter 1.3**  
<https://docs.google.com/document/d/e/2PACX-1vQSOnyaJaQ9NYUf0nwJBUVJUYER2G-IAjwK70L8n95yAUJ3JUUYf5Ghcs06RQipub?embedded=true>

Date Approved	Instructor
25/05/2022	<input type="button" value="Select"/>
Choose Status	
<input type="button" value="Under-Revision"/>	
Status	
<input type="button" value="Under-Revision"/>	
<input type="button" value="SAVE"/>	

Figure 4.7 Capturing embed links

Figure 4.7 shows a form and it is for capturing embed links on google docs and youtube video then on the right side is the youtube video which is a tutorial on how to get embed links for

google documents and youtube. The capstone 1 to capstone 3 was the same process for capturing and updating.

The screenshot shows a web-based application interface for managing capstone projects. On the left is a sidebar with icons for PROFILE, MY PROJECT, CAPSTONE LIST (which is selected), and TOPIC SUGGESTION. At the bottom of the sidebar are LOGOUT and HELP buttons. The main area has a header 'Capstone Archiving Management System' and a user profile 'Gerald John Sison Admin STUDENT'. Below the header is a search bar and a 'Sort by' dropdown. A table titled 'CAPSTONE LIST' displays nine rows of project data:

#	TITLE	GROUP NAME	YEAR LEVEL	SCHOOL YEAR	STATUS	ACTION
1	Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition	BugTechnology	4th year	2021-2023	UNDER DEVELOPMENT	<button>VIEW</button>
2	BUKSU VIRTUAL TOUR	BUKSU VIRTUAL TOUR	5th year	2018-2019	UNIMPLEMENTED	<button>VIEW</button>
3	QUICK RESPONSE CODE MOBILE APPLICATION FOR SUBCONTRACTOR	Automated Attendance	5th year	2018-2019	DEPLOYED	<button>VIEW</button>
4	THE UTILIZATION OF SELF-SERVICE TECHNOLOGY IN OPTIMIZING THE BUKIDNON STATE UNIVERSITY OFFICE OF THE STUDENT SERVICES	ICT in Student Services	5th year	2018-2019	DEPLOYED	<button>VIEW</button>
5	ONLINE HOTEL RESERVATION AND MANAGEMENT SYSTEM FOR BALAI HA BUKSU	HOTEL RESERVATION	5th year	2018-2019	DEPLOYED	<button>VIEW</button>
6	Man for the Job: A web application using Ionic Framework for local laborers in Malaybalay City, Bukidnon	Man for the Job	5th year	2016-2017	DEPLOYED	<button>VIEW</button>
7	A Static 3D Modeling using Sketch Up for Haus Malibu Hotel with Online Reservation System	Hotel with Online Reservation	5th year	2016-2017	DEPLOYED	<button>VIEW</button>
8	FarmBuddy: A Farm Crop Marketing System	FarmBuddy	5th year	2016-2017	DEPLOYED	<button>VIEW</button>
9	BUKIDNON STATE UNIVERSITY RESEARCH RECORD MANAGEMENT SYSTEM	BUKIDNON STATE UNIVERSITY RESEARCH RECORD	5th year	2018-2019	DEPLOYED	<button>VIEW</button>

Figure 4.8 Capstone list

Figure 4.8 shows all capstone projects. As you can see there is a tabular view of capstone projects, and the rows composed of title, group name, year level, school year, status, action and the column was a list of capstone projects. Students can view other capstone projects if the owner agreed to share their work or else only an abstract will be shown. There is a search and sorting to get specific study.

**PROJECT DESCRIPTION/ABSTRACT**

This study covers the development of a Web-based Capstone Project Archiving and Monitoring System, which helps the BUKSU IT Department to monitor the approved capstone projects of undergraduate students or third-year and fourth-year students, and also digitizes all the documents of the projects by group. This system will also help the faculty to monitor the capstone projects of their students. The system will also help the students to upload any files they want to share with the faculty. Finally, the system will help the faculty to view any files that are uploaded by the students.

**OPEN MANUSCRIPT**

BUGTECHNOLOGY	School Year
Group Name	2021-2023
DEMS G. ELIZARDE	GERALD JOHN HIPONIA
Adviser	Co-Adviser
JHONREY S. ELIZARDE	JANREY G. BIKTOR
JOHN S. SISON	Panel 1
Panel 2	DEMIAL S. VICTOR
GERALD JOHN SISON ADMIN	PHEBE ALCAIRO BILLONES
Proponent 1	Proponent 2
JHONREY CAPASAN VICTOR	Proponent 3
Capstone 1	PHEBE ALCAIRO BILLONES
<a href="#">VIEW</a>	Proponent 4
Capstone 2	Capstone 3
<a href="#">VIEW</a>	<a href="#">VIEW</a>
Status: Under-revision	Status: Development
Status: Under-revision	Status: Under-revision

Figure 4.9 Viewing other capstone project

Figure 4.9 viewing of other capstone projects, it shown after clicking the view button in figure 4.7, If they click that button they can go to these page and see the data such as title, abstract, adviser, co-advisor, client, panel, proponents and etc., then you can see that the status of their capstone project is indicated by a capstone 1, capstone 2, and capstone 3. The view button will open if the owner agreed to share their work or else only the figure 4.8 will be shown.

The screenshot shows a web-based application interface for the Capstone Archiving Management System. On the left is a vertical sidebar with a logo for 'BUKSU' and four menu items: 'PROFILE', 'MY PROJECT', 'CAPSTONE LIST', and 'TOPIC SUGGESTION' (which is highlighted in blue). The main content area has a header 'Capstone Archiving Management System'. In the top right corner, there is a user profile picture and the text 'Gerald John Sison Admin STUDENT'. Below the header is a search bar labeled 'Search' and a dropdown menu labeled 'Sort by'. The main content is a table titled 'TOPIC SUGGESTIONS LIST' with the following data:

#	TITLE	DATE CREATED	STATUS	ACTION
1	wfwfw	2022-10-24T18:58:28.00000Z	Available	<button>VIEW</button>
2	Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition	2022-10-24T18:57:58.00000Z	Available	<button>VIEW</button>

At the bottom of the table are navigation buttons '« Previous' and 'Next »', and a 'Row visible' dropdown menu with 'Choose...' option.

*Figure 4.10 Topic suggestion*

*Topic suggestion* is a feature that students can obtain certain topics that were created by the administrator and faculty then enable the students to get the topic and develop it as their own study. Figure 4.9 shows all the topic suggestions uploaded in the system. In this phase there is a list of topic suggestions that can be sorted by title, created date, status, and students can search a topic for explicit information they need to look at.

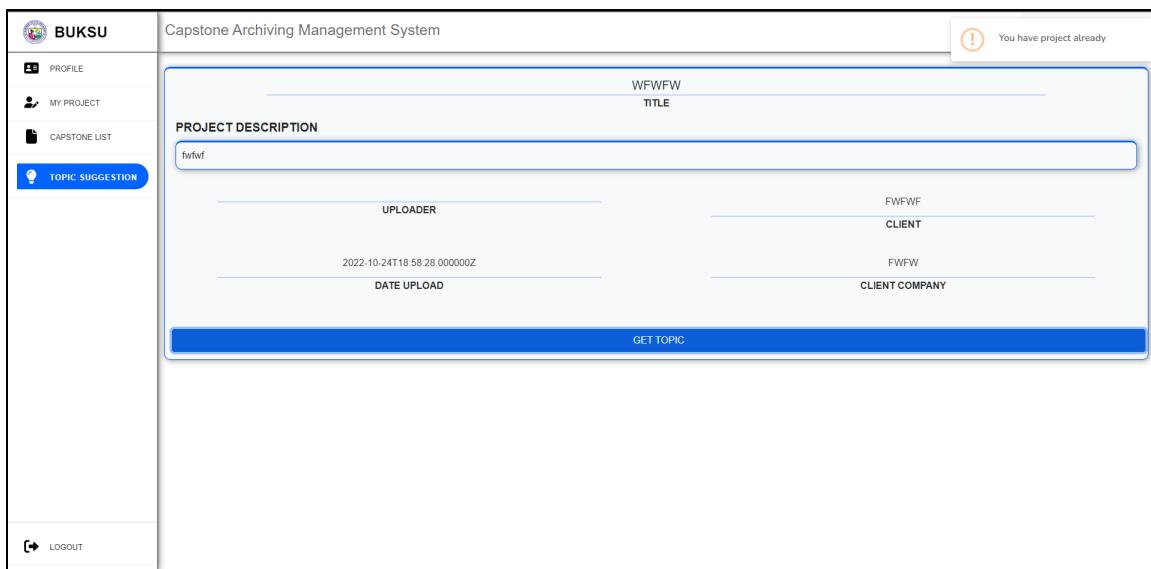


Figure 4.11 Getting capstone topic from the topic suggestion

Figure 4.10 Getting capstone topic from the topic suggestions uploaded in the system, the title, project description, uploader, date of upload, client, and client company are all visible to the student when they click the view button on figure 4.9 .Only students who don't have a project can get a topic in topic suggestion. By clicking the "Get Topic" button, it automatically creates a project in the “My Project” module.

## FACULTY INTERFACE

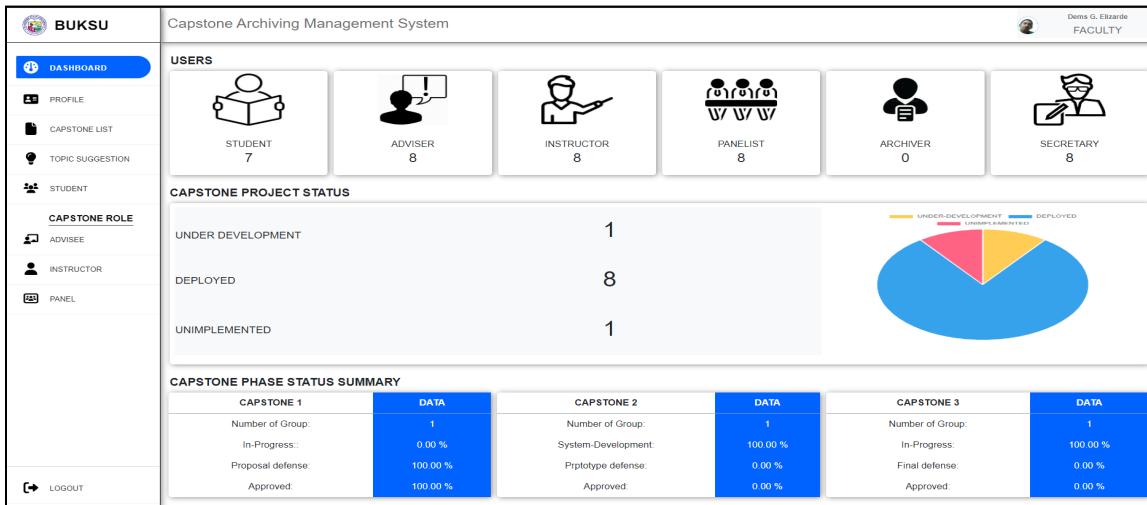


Figure 4.12 Faculty Dashboard

Figure 4.12 shows the faculty dashboard in a system. The faculty can figure out how many people have created accounts for each role during this phase. Additionally, faculty members can see how many have not yet been developed, deployed, or unimplemented and automatically appear in the pie chart. Faculty members can also know the progress of each group.

The screenshot shows the 'CREATE TOPIC SUGGESTIONS' page. On the left is a sidebar with icons for Dashboard, Profile, Capstone List, Topic Suggestion (highlighted in blue), Student, Capstone Role, Advisee, Instructor, and Panel. At the top right is the user's name, 'Dems G. Elizalde', and role, 'FACULTY'. The main area has sections for 'TITLE' (with a 'Title' input field), 'TOPIC DESCRIPTION' (with a 'Description' input field), and 'INFORMATION' (with 'Client Name' (Input Client Name), 'Client Location' (Input Client Location), 'Client Company' (Input Company Name), and 'Thoughts' (Thoughts about the topic) input fields). A large blue 'CREATE TOPIC' button is at the bottom.

*Figure 4.13 Creating the topic suggestions*

Figure 4.13 shows creating topic suggestions. Faculty are taken to this page automatically when they click the "create" button. The title, topic description, uploader, date of upload, client, and client company are just a few of the fields where instructors can enter specific information. And to upload, click the "create topic" button .

The screenshot shows the 'STUDENT LIST' page. The sidebar includes icons for Dashboard, Profile, Capstone List, Topic Suggestion, Student (highlighted in blue), Capstone Role, Advisee, Instructor, and Panel. At the top right is the user's name, 'Dems G. Elizalde', and role, 'FACULTY'. The main area features a search bar with 'Search' and 'search' buttons, and a 'CREATE' button. Below is a table with columns: #, Avatar, ID, FULLNAME, YEAR, and ACTION (with a 'VIEW' button). The table contains 7 rows of student data.

#	Avatar	ID	FULLNAME	YEAR	ACTION
1		1801100000	Gerald John Sison Admin	5th year	<button>VIEW</button>
2		1801100000	Jhorey Capasan Victor	null	<button>VIEW</button>
3		1801100000	Pheba Alcairo Billones		<button>VIEW</button>
4		1801100000	Dems Brial Gargar Elizalde		<button>VIEW</button>
5		12345678	temporary temporary temporary	FIFTH YEAR	<button>VIEW</button>
6		1801104017	Gerald John Sison Hiponia	not set	<button>VIEW</button>
7		12345678	John John John	not set	<button>VIEW</button>

*Figure 4.14 Student lis*

Figure 4.14 Shows a list of the students in the system, As you can see, the students' names are listed in alphabetical order by number, avatar, ID, full name, year, and action. Faculty can search students and view capstone 1, capstone 2, and capstone 3.

The screenshot shows a web-based application interface for 'Capstone Archiving Management System'. On the left is a vertical sidebar menu with icons and labels: DASHBOARD, PROFILE, CAPSTONE LIST, TOPIC SUGGESTION, STUDENT, CAPSTONE ROLE, ADVISEE, INSTRUCTOR (which is highlighted in blue), and PANEL. At the bottom of the sidebar is a LOGOUT button. The main content area has a header 'Capstone Archiving Management System' and a user profile 'Dems G. Elizarde' with 'FACULTY' status. Below the header is a section titled 'LIST OF CAPSTONE AS A ONE OF THE INSTRUCTOR'. This section contains a table with one row, showing details of a capstone project. The table columns are labeled '#', 'TITLE', 'GROUP NAME', 'YEAR', 'DATE STARTED', and 'ACTION'. The data in the table is as follows:

#	TITLE	GROUP NAME	YEAR	DATE STARTED	ACTION
1	Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition	BugTechnology	4th year	2021-06-19	<a href="#">VIEW</a>

Figure 4.15 shows the list of roles in a capstone such as adviser, instructor and panel.

Figure 4.15 Shows all the list of roles in a capstone such as adviser, instructor and panel in a system. in this phase, the faculty will know what the roles of other faculty are in the capstone project, for example, is he secretary or panel,etc.

**BUKSU**

**Capstone Archiving Management System**

DASHBOARD PROFILE CAPSTONE LIST TOPIC SUGGESTION STUDENT CAPSTONE ROLE ADVISEE INSTRUCTOR PANEL LOGOUT

**CAPSTONE 1**

**ARCHIVING SYSTEM OF BUKSU IT DEPARTMENT CAPSTONE PROJECT USING OPTICAL CHARACTER RECOGNITION**

Title

**PROJECT DESCRIPTION**

This study covers the development of a Web-based Capstone Project Archiving and Monitoring System, which helps the BUKSU IT Department to monitor the approved capstone projects of undergraduate students or third-year and fourth-year students, and also digitizes all hardcopy capstone project made by graduate students. The system can capture all capstone projects, and serves as a solution to the users in order to avoid the repetition of proposals and analyze any gaps. The proponents used Laravel 9 (version), a PHP framework for software development. Vue.js 3, Bootstrap 5 and HTML to design the look and feel of the frontend UI. The system has four end-users. These are the administrator, faculty, IT students, and the archiver. The administrator was the ISO coordinator, the faculty was the supervisor, IT students were the ones that would be monitoring their own projects, and the archiver was the one that would be the secretary and handle who monitors the capstone project documentation of students. After that, they would be responsible for viewing the capstone project list, but only the third-year and fourth-year IT students can upload their files after each phase since capstone will start in their third academic year. Lastly, the archiver who is an authorized person assigned by the BUKSU IT department, can also upload scanned documents. The archive system would capture every phase from capstone 1, the proposal, capstone 2, the prototype, and capstone 3, the final documentation. There is also a dashboard system for the administrator to monitor all the data in one display. After that, the project and its related files can be viewed online by the students, instructors, and advisers. The capstone project information will include the title, the year the capstone the project was completed, abstract, author, co-author, status, and adviser. Changes are made based on the approval of the administrator, and only documents approved for publication can be viewed. The data is limited to publication and images only, and videos are not supported for upload. This web-based application is designed and only available to the IT Department in Bukidnon State University.

Revised Manuscript of Chapter 1-3	Action Done Matrix for Capstone 1	MOU between Advisee and adviser	Capstone Project Title Proposal Form
<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>
Capstone Adviser Appointment Form	Capstone Powerpoint Presentation	Recorded Proposal Presentation	Minutes of the Proposal Defense
<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>
File Containing the Screenshots of the gcash payment to the panel		File Containing the Screenshot of the acceptance of the panel to the revision done to chapter 1-3	
<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>	<a href="#">OPEN</a>

**PANELIST**

JOHN S. SISON DEMS G. ELIZARDE JANREY G. BIKTOR  
96 % 92 % 94 % APPROVED APPROVED APPROVED  
**APPROVED, 94.00 %**

Rating status

**RATE**

BUG TECHNOLOGY Group Name JOHN S. SISON Instructor DEMS G. ELIZARDE Adviser 2022-05-25 Date of Proposal Defense

UNDER-REVISION Status

Figure 4.16 Monitoring of capstone project

**BUKSU**

**Capstone Archiving Management System**

DASHBOARD PROFILE CAPSTONE LIST TOPIC SUGGESTION STUDENT CAPSTONE ROLE ADVISEE INSTRUCTOR PANEL SECRETARY LOGOUT

**CAPSTONE 1 EVALUATION RUBRIC**

Category	4-Excellent	3-Good	2-Average	1-Below Average	Weight (%)	Score	Rating (%)
<b>Background of the Study</b>	Well formulated background of the study. The general purpose is supported with 5 or more strong sources of evidence specific to the topic.	Fairly well formulated background of the study. The general purpose is supported but the evidence is at most three (3) sources and weak sources.	@Background of the study is not well formulated. The general purpose is supported with less than three (3) sources of weak evidence to support the topic.	Lacks proper background of the study. The general purpose is not supported and there is no evidence to support the topic.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Objectives of the Study</b>	The general objective specifies the main purpose of the research and developing implementation and evaluation.	3 research objectives are appropriately stated with clear and measurable outcome.	3 research objectives are appropriately stated but limited evidence & unclear & measurable	1-2 research objectives are appropriately stated but limited evidence & unclear & measurable	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Significance of the Study</b>	The specific objectives enumerate the importance of the study, developing implementation and evaluation.	3 comprehensive objectives stated clearly and specifically & measurable	Stated 3 objective but limited evidence & unclear & measurable	The specific objectives enumerate the importance of the study, developing implementation and evaluating the system being developed	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Scope and Limitation</b>	Very clearly stated purpose of the study that can easily be understood and the boundaries of the scope are very clearly defined.	Fairly well stated purpose of the study and the limitations are clearly defined.	Poorly stated who will benefit from the study, the limitations and the scope of the study.	Not clearly stated who will benefit from the study, the limitations and the scope of the study.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Definition of terms</b>	Least one term is clearly defined and defines the technical and operational definitions.	Fairly well defined terms are clearly defined and operational definitions.	Technical and operational terms are not clearly defined.	Technical and operational terms are not clearly defined.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Literature Review</b>	Summarize 6-10 literature (what, when, where, how)	Summarize 3-7 literature items (what, when, where, how)	Summarize 3-6 literature items (what, when, where, how)	Summarize less than 3 literature items (what, when, where, how)	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Methodology</b>	Include the following brief statement of the general purposes of the study, the period of time, the location of the study, the period of time, the location of the study, and a platform for development.	Include the following brief statement of the general purposes of the study, the period of time, the location of the study, and a platform for development.	Include the following brief statement of the general purposes of the study, the period of time, the location of the study, and a platform for development.	Include the following brief statement of the general purposes of the study, the period of time, the location of the study, and a platform for development.	10	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	10
<b>Processes and procedures</b>	Processes and procedures are well stated and clearly defined and comprehensive.	Processes and procedures seem appropriate for the scope of the study.	Processes and procedures seem appropriate for the scope of the study.	Processes and procedures seem appropriate for the scope of the study.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>References</b>	Adhere with the APA format.	Meet the format requirement.	Lacking of format requirement.	Not meet the format requirement.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Formatting</b>	Adhere with ALL format requirement.	Meet the format requirement.	Lacking of format requirement.	Not meet the format requirement.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Oral communication skills</b>	The students clearly and confidently explained in English with a clear and confident voice.	Students were able to explain effectively in English partly with some difficulty.	Students were able to explain effectively in English partly with some difficulty.	Students were able to explain effectively in English although with some difficulty.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>PPT &amp; Video presentation</b>	The PPT/video visual enhancement was generally reasonable and comprehensive.	The PPT/video visual enhancement was visually good.	The PPT/video visual enhancement was visually good.	The PPT/video visual enhancement was visually good.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Attire</b>	The group were attired in proper attire and overall appearance and appears professional.	Most of the group members were not in proper attire and appearance.	Most of the group members were not in proper attire and appearance.	Most of the group members were not in proper attire and appearance.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Response to Inquiry</b>	Student demonstrates full knowledge and ability to answer questions and explanations and elaboration.	Student shows adequate knowledge and ability to answer questions and explanations.	Student shows little knowledge by answering questions with few details or elaboration.	Student shows little knowledge by answering questions with few details or elaboration.	10	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	10
<b>TOTAL</b>				100	<b>95.75</b>		
RATING : 95.75 % Remarks : Passed with minor revisions							
PAYOUT: 100%							
APPROVAL AND SECURITY							

*Figure 4.17 Rubrics and Rating for Capstone project*

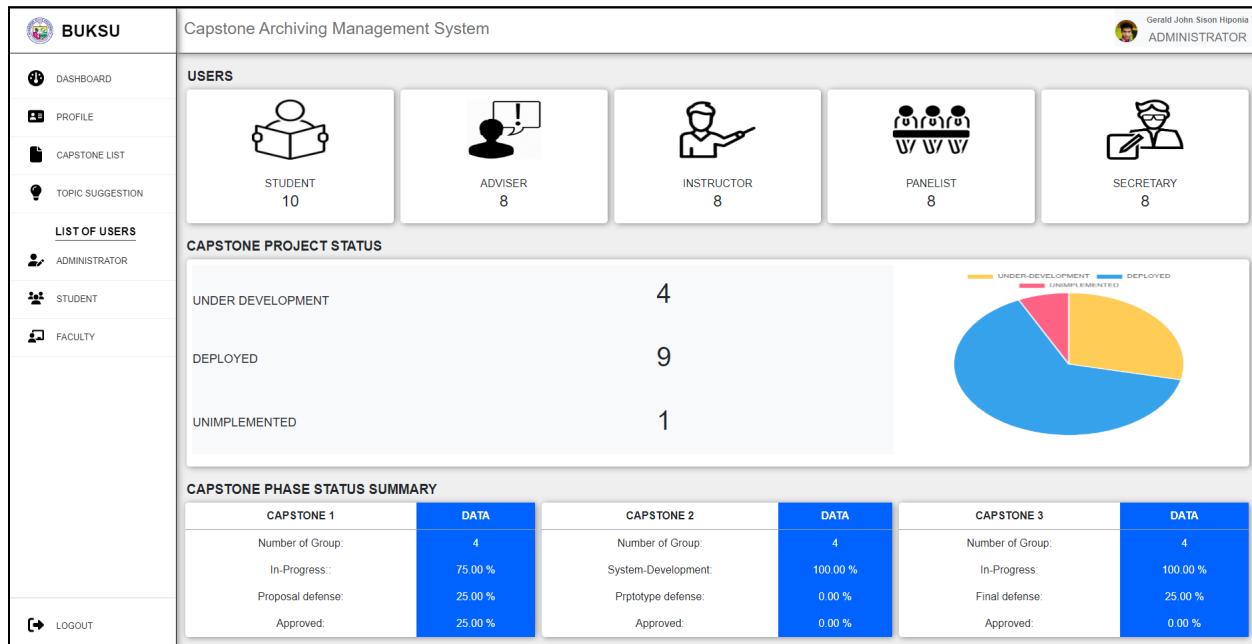
Figure 4.17 Shows the rubrics and rating for the capstone project of the student. During this phase, faculty members can view or read the rubrics before evaluating the student project. The system automatically calculates the rates after the faculty gives a rating.

The screenshot shows the Capstone Archiving Management System interface. On the left, there's a sidebar with navigation links: DASHBOARD, PROFILE, CAPSTONE LIST, TOPIC SUGGESTION, STUDENT, CAPSTONE ROLE (with SECRETARY selected), ADVISER, INSTRUCTOR, PANEL, and LOGOUT. The main content area has a header "Capstone Archiving Management System". Below it, there's a section titled "PROJECT DESCRIPTION/ABSTRACT" with placeholder text. A table follows, showing project details: Group Name (LOREM IPSUM), Adviser (JHONREY S. ELIZARDE), Co-Adviser (JOHNREY S. DELACRUZ), Client (NULL), School Year (2022 - 2023), Status (UNDER DEVELOPMENT), Panel 1 (JOHN S. SISON), Panel 2 (DEMS G. ELIZARDE), Panel 3 (JANREY G. BIKTOR), Secretary (JOHN S. SISON), Proponent 1 (GERALD JOHN SISON ADMIN), Proponent 2 (JHONREY CAPASAN VICTOR), Proponent 3 (PHEBE ALCAIRO BILLONES), and Proponent 4 (GRGRGRRGR EFEFE D3D3D). At the bottom, three boxes represent "Capstone 1", "Capstone 1", and "Capstone 1" respectively. Each box contains a "Minutes (pdf only)" input field with "Choose File" and "No file chosen" buttons, an "UPLOAD" button (blue for uploaded, yellow for not yet uploaded), and a "VIEW" button (green for uploaded).

*Figure 4.18 Uploading minutes*

Figure 4.18 uploading minutes of every capstone. Minutes in pdf format can be uploaded by clicking the blue button, yellow button if they have yet to upload, and press the green button to view once the file has been uploaded successfully, and the secretary will be able to open it.

## ADMINISTRATOR INTERFACE



*Figure 4.19 Dashboard administrator*

Figure 4.19 shows Dashboard administrator, Similar to the faculty dashboard, the Administrator can determine how many individuals have created accounts for each role during this phase.In addition, the number of those that have not yet been developed, deployed, or implemented automatically appears in the pie chart for administrator members to view.Administrators can also keep track of each group's progress.

The screenshot shows a web-based application interface for managing capstone projects. On the left, a sidebar menu includes options like Dashboard, Profile, Capstone List (which is currently selected), Topic Suggestion, List of Users, Administrator, Student, and Faculty. The main content area has a header "Capstone Archiving Management System".

**Optical Character Recognition for ABSTRACT**

NOTE: The conversion of image to Text, will depend on the clarity of the images.  
Choose File abstractmm00

**ABSTRACT**

This paper presents the development and implementation of the business monitoring software and control layer for the Sales Forecasting Analytics System (SaFAS) for the business process in product distribution for Quantum Foods, Distribution Company. The paper showed and established a proof-of-concept for a Sales forecasting Framework using Analytics as the basis for the core of the system. The researchers use the method of "V Model" as the process model for the development of Sales Forecasting Analytics System. The sequential structure of this approach ensures that all requirements are achieved before moving onto the next step and no important steps are left out in the development process. During the effectiveness tests conducted at the client's main office with actual interaction and engagement with the finished product the results shows that the Sales Forecasting Analytics System has a grand mean of 4.75 for its acceptability and satisfaction rate which covers the area of functionality and usability. Thus, the software product was formally accepted and recommended for use and deployment.

*Analytics System.*

**CONVERTED TEXT (You can edit the converted text before adding to abstract.)**

**ABSTRACT \***

This paper presents the development and implementation of the business monitoring software and control layer for the Sales Forecasting Analytics System (SaFAS) for the business process in product distribution for Quantum Foods, Distribution Company. The paper showed and established a proof-of-concept for a Sales forecasting Framework using Analytics as the basis for the core of the system. The researchers use the method of "V Model" as the process model for the development of Sales Forecasting Analytics System. The sequential structure of this approach ensures that all requirements are achieved before moving onto the next step and no important steps are left out in the development process. During the effectiveness tests conducted at the client's main office with actual interaction and engagement with the finished product the results shows that the Sales Forecasting Analytics System has a grand mean of 4.75 for its acceptability and satisfaction rate which covers the area of functionality and usability. Thus, the software product was formally accepted and recommended for use and deployment.

**Keywords:** Sales Forecasting, Product Distribution, Business Monitoring Software and Analytics System. 1

**ADD TO ABSTRACT**

**Abstract Or Project Descriptions**

Abstract

**SAVE ABSTRACT**

**GENERAL INFORMATION**

**Title**

**Group Name:** Input Groupname **Project Status:** Choose Year **Capstone From:** 03/2022 **Capstone To:** 03/2022

**Panel 1:** Panel 2 **Panel 3:** Secretary  
**Proponent:** Proponent **Proponent:** Proponent  
**Adviser:** C-Adviser

**CREATE PROJECT**

*Figure 4.20 Digitizing capstone project of graduated students.*

Figure 4.20 shows uploading abstract images, for conversion of image to text using OCR, and the form below is for some data such as school year, title, panelist, proponents, adviser, etc. and it is a process for digitizing capstone projects of the graduated student. then it will display on the capstone list after creating that project.

The screenshot shows the Capstone Archiving Management System's interface. On the left is a sidebar with icons for Dashboard, Profile, Capstone List (which is selected), Topic Suggestion, List of Users, Administrator, Student, Faculty, and Logout. The main area is titled "Capstone Archiving Management System" and contains a "CAPSTONE LIST" section. It features a search bar, a sort dropdown, and a "CREATE" button. Below is a table with the following data:

#	TITLE	GROUP NAME	YEAR LEVEL	SCHOOL YEAR	STATUS	ACTION
1	SALES FORECASTING ANALYTICS SYSTEM FOR QUANTUM FOODS DISTRIBUTION COMPANY	SALES FORECASTING ANALYTICS SYSTEM FOR QUANTUM FOODS DISTRIBUTION COMPANY	Graduated	2017 - 2018	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
2	SALES FORECASTING ANALYTICS SYSTEM FOR QUANTUM FOODS DISTRIBUTION COMPANY	SALES FORECASTING ANALYTICS SYSTEM FOR QUANTUM FOODS DISTRIBUTION COMPANY	Graduated	2017 - 2018	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
3	Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition	BugTechnology	4th year	2021-2023	UNDER DEVELOPMENT	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
4	BUKSU VIRTUAL TOUR	BUKSU VIRTUAL TOUR	5th year	2018-2019	UNIMPLEMENTED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
5	QUICK RESPONSE CODE MOBILE APPLICATION FOR SUBCONTRACTOR	Automated Attendance	5th year	2018-2019	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
6	THE UTILIZATION OF SELF-SERVICE TECHNOLOGY IN OPTIMIZING THE BUKIDNON STATE UNIVERSITY OFFICE OF THE STUDENT SERVICES	ICT in Student Services	5th year	2018-2019	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

Figure 4.21 Shows all capstone project

Figure 4.21 Shows all capstone projects uploaded in the system. The log page only displays a list of users' activities in this section. The creation and modification of entries are among these activities. For record transparency, upload, delete, and viewing actions can also be recorded and displayed on this page. The Search bar handles the entered records while data entry takes place on the Manage records page. This page makes viewing, searching, and exporting data possible. The application's home page is the search record page. A search facility with numerous options for managing archive data is provided on this page. Editing, updating, and deleting records are all part of managing the entries. Utilizing the View button, faculty and administrators may be able to monitor the progress of individual student documentation.

BUKSU Capstone Archiving Management System

Gerald John Sison Hiponia  
ADMINISTRATOR

**CAPSTONE LIST**

#	TITLE	YEAR	SCHOOL	STATUS	ACTION	
1	SALES FORECASTING ANALYTIC SYSTEM FOR QUANTUM FOOD DISTRIBUTION COMPANY			DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>	
2	Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition			UNDER DEVELOPMENT	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>	
3	BUKSU VIRTUAL TOUR			UNIMPLEMENTED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>	
4	QUICK RESPONSE CODE MOBILE APPLICATION FOR SUBCONTRACTOR			DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>	
5	THE UTILIZATION OF SELF-SERVICE TECHNOLOGY IN OPTIMIZING THE BUKIDNON STATE UNIVERSITY OFFICE OF THE STUDENT SERVICES	ICT in Student Services	5th year	2018-2019	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
6	ONLINE HOTEL RESERVATION AND MANAGEMENT SYSTEM FOR BALAI HA BUKSU	HOTEL RESERVATION	5th year	2018-2019	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>
7	Man for the Job: A web application using Ionic	Man for the Job	5th year	2016-2017	DEPLOYED	<a href="#">VIEW</a> <a href="#">UPDATE</a> <a href="#">DELETE</a>

**DELETE**  
Capstone delete successfully  
**OK**

[LOGOUT](#)

Figure 4.22 Deleting capstone project

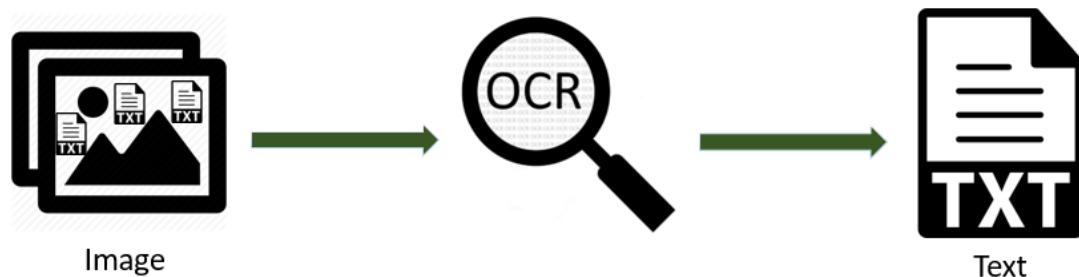


Figure 4.23 Process of how to archive documents through Optical Character Recognition(OCR)

Figure 4.23 show the process of archive documents in BukSU Capstone Archiving Management System , the admin, students, and archiver (student assistance) can use OCR to archive during this phase, when it is a create button.First, the Archiver takes a picture of the documents, which she or he then uploads and automatically converts into text.

## **4.2 RESULT OF EVALUATION**

### **User Testing**

The researchers select the application's evaluator through a purposive testing study of the initial 35 respondents from Bukidnon State College.

With the assistance of 35 (35) respondents, the analysts had the option to test the application's usefulness. 25 (25) of the respondents were IT personnel at Bukidnon State College and ten (10) were IT undergraduates at Bukidnon State University.Due to the pandemic, the specialists couldn't enlist extra respondents, so they chose our respondents at irregular intervals to gather data.Prior to answering the review, respondents evaluated the application to perceive how they enjoyed it.

Since the researcher uses a modified waterfall model and the project's testing phase is when obvious changes to the waterfall and other models are made in the SDLC.Testing takes place both during the development phase and during the deployment phase.There are a variety of testing methods;The study makes use of the following

methods: Functional testing, performance testing, load testing, compatibility testing, and system testing

The researcher investigated compatibility issues by examining the hardware components, such as server computers that will serve as the controller of the system and scanners that will be used for document scanning in order to produce electronic copies, to prevent possible computer hacking and virus attacks. However, it is restricted to the network username and password for system security. Additionally, the client-side computer is tested to learn more about the behavior and ensure compatibility with data processing.

### **BukSU Capstone Archiving Management System**

#### **Evaluation Questionnaire**

Name:	
Date:	

**Instructions:** Please indicate your level with each of these statements regarding the Archiving system. Please write “/” in the box of your answer. Very Strongly Agree(5), Strongly Agree(4), Agree(3), Disagree(2), and Strongly Disagree(1)

	Question	Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree
Functional Suitability	Functional Completeness. The system covers all the specified tasks and user objectives.					
	Functional Correctness. The system provides the correct results with the needed degree of precision.					
	Functional Appropriateness. The system facilitates the accomplishment of specified tasks and objectives.					
Performance Efficiency	Time Behaviour. The system's response and processing times and throughput rates when performing its functions, meet requirements.					

	Resource Utilization. The system's amounts and types of resources used when performing its functions, meet requirements.				
	Capacity. The system's maximum limits of parameters meet requirements.				
Compatibility	Co-existence. The system can perform its required functions efficiently while sharing a common environment and resources with other products, without detrimental impact on any other product.				
	Interoperability. The system can exchange information and use the information that has been exchanged.				

Usability	Appropriateness Recognizability. The system allows users to recognize if it is appropriate for their needs.					
	Learnability. The system can be used by specified users to achieve specified goals of learning to use the application with effectiveness, efficiency, freedom from risk and satisfaction in a specified context of use.					
	Operability. The system has attributes that make it easy to operate and control.					
	User Error Protection. The system protects users against making errors.					
	User Interaction Aesthetics. The system's user interface enables					

	pleasing and satisfying interaction for the user.				
	Accessibility. The system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.				
Reliability	Maturity. The system meets the needs for reliability under normal operation				
	Availability. The system is operational and accessible when required for use.				
	Fault Tolerance. The system operates as intended despite the presence of hardware or software faults.				
	Recoverability. The system can recover the data directly				

	affected and re-establish the desired state.				
Security	Confidentiality. The system ensures that data are accessible only to those authorized to have access.				
	Integrity. The system prevents unauthorized access to, or modification of, computer programs or data.				
	Non-repudiation . The system can be proven to have taken place, so that the events or actions cannot be repudiated later.				

### 4.3 Testing Results

Application Evaluation	Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree
Functional Suitability	0	0	0	0	0
Performance Efficiency	0	0	0	0	0
Compatibility	0	0	0	0	0
Usability	0	0	0	0	0
Reliability	0	0	0	0	0
Security	0	0	0	0	0

*Table 4.3.1 The Summary result of response of the respondent's to its satisfaction rating with BukSU Capstone Archiving Management System on its functions and non-functional requirements.*

The table 4.3.1 shows the BukSU Capstone Archiving Management System testing results from thirty-five (35) respondents. For the Functional Suitability Questions, there are zero (0) out of thirty-five (35) respondents who have answered Very Strongly Agree and there are zero (0) respondents who Strongly Agree out of thirty-five (35) then zero (0) for Agree. For the Compatibility Questions, there are zero (0) who answered Very Strongly Agree and zero (0) who answered Strongly Agree and zero (0) on Agree. For the Usability questions, there are zero (0) who answered Very Strongly Agree and

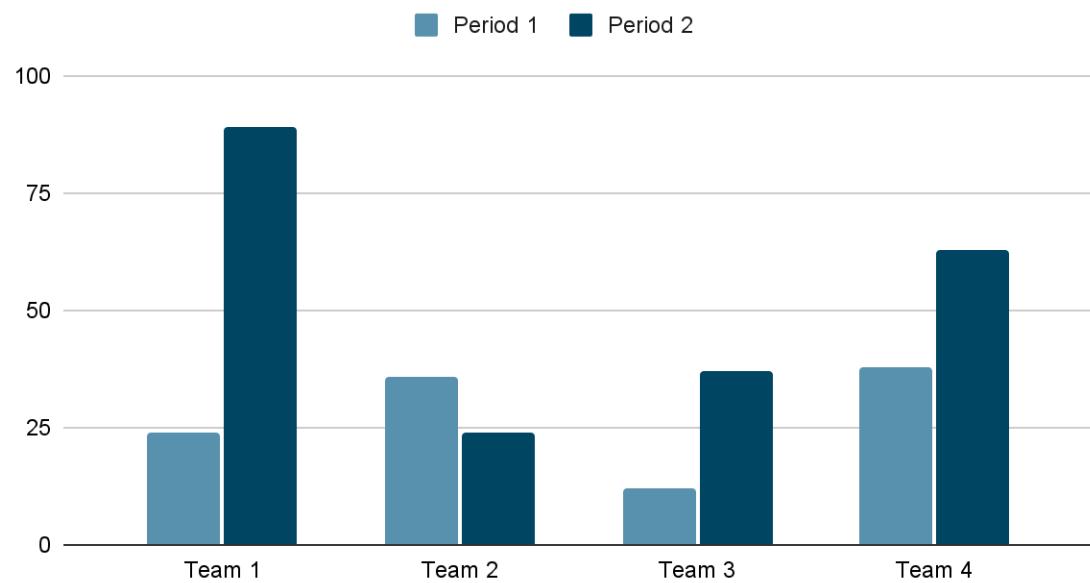
zero (0) who answered Strongly Agree and zero (0) on Agree. For the Efficiency questions, there are zero (0) who answered Very Strongly Agree and zero (0) who answered Strongly Agree and zero (0) on Agree. For the Reliability questions, there are zero (0) who answered Very Strongly Agree and zero (0) who answered Strongly Agree and zero (0) on Agree. Finally, for the Security questions, there are zero (0) who answered Very Strongly Agree and zero (0) who answered Strongly Agree and zero (0) on Agree.

Application Evaluation	5	4	3	2	1	Average	Qualitative Description
Functional Suitability	0	0	0	0	0	0	?
Performance Efficiency	0	0	0	0	0	0	?
Compatibility	0	0	0	0	0	0	?
Usability	0	0	0	0	0	0	?
Reliability	0	0	0	0	0	0	?
Security	0	0	0	0	0	0	?
Application Evaluation	0	0	0	0	0	0	?

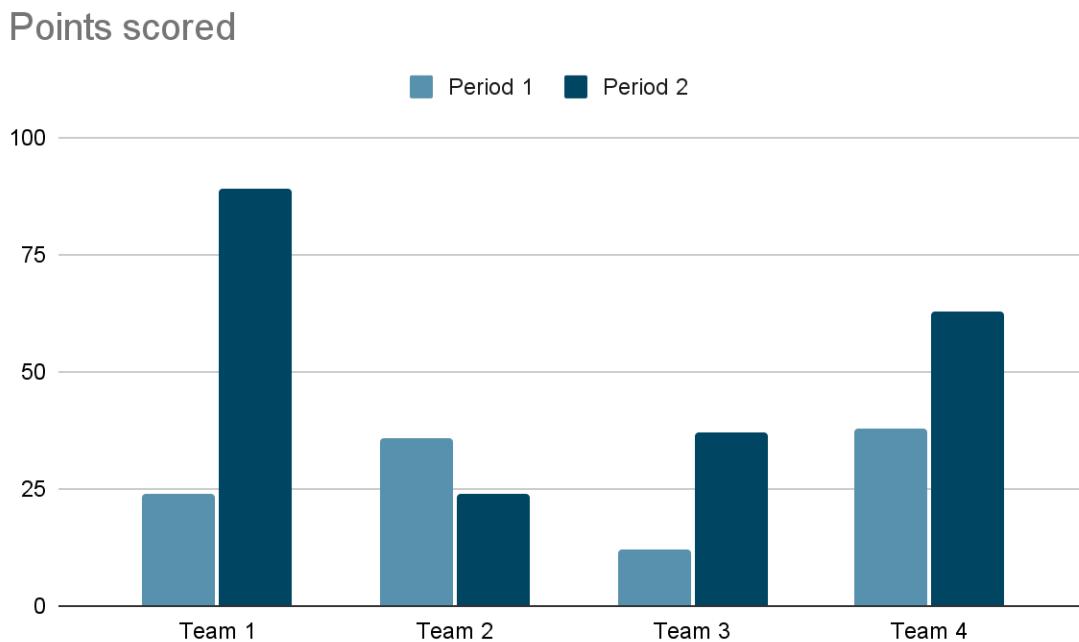
*Table 4.3.2 Summary of the qualitative description of proponent's responses based on their satisfaction ratings.*

The table 4.4.2 shows the BukSU Capstone Archiving Management System testing results from thirty-five (35) respondents.

## Points scored



*Figure 4.4.3 Shows the Graph of the tally of each score from all respondent*



*Figure 4.4.3 shows the bar graph of the tally of each specific set of questions from all respondents.*

### 4.3 Discussions

The researchers gathered data by using the survey, which had 21 questions about the application's functionality. After conducting the testing and survey, the researchers came to the conclusion that the application needs to be improved in some areas. The outcomes showed that among the (pila ka respondents) respondents in which three (3) respondents are instructors, fifteen (15) respondents are students, forty-five(45) respondents are panelists, and fifteen(15) respondents are secretaries.

After examining the responses from the participants, the researchers came up with suggestions for improvement areas. To ensure that the application would be dependable in handling the BUKSU CAPSTONE ARCHIVING MANAGEMENT SYSTEM, the researchers ought to concentrate on reliability. Because it is one of the objectives of the research, they ought to also concentrate on making the application's usability better.

.....

## **Chapter 5** **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

The study's Summary, conclusion and recommendation are presented in this chapter, which includes the BukSU IT Department Capstone Project Archiving Management System.

### **5.1 Summary**

The proponents aim to provide a capstone archiving management system to promote a more secure and easily accessible archive for BukSU IT departments, keep records of physical documents using OCR through digitization in case of disappearance or physical damage, and enable the user to digitize the capstone project using OCR, which can minimize the accuracy of time spent on scanning the documents rather than manual input. In addition, the system helps the user manage and maintain the records of all capstone projects for IT graduate and undergraduate students in the BukSU IT Department. Additionally, the system consisted of various features such as Digitizing Capstone projects, monitoring, Searching for a specific topic, uploading images for text conversion using OCR, uploading pdf for final manuscript, secretary's ability to upload minutes, topic suggestions, visualizing data or dashboard. The system also included features for capturing capstone data such as panelists, advisers, proponents, instructors, secretaries, a github link, a YouTube embed link, and a Google document embed link from capstone 1 to capstone 3, such as manuscripts, done matrixes, and so on.

The purpose of this feature is to prevent the students from falling behind in each phase of the capstone project. Therefore, in order to avoid a redundant study, the web-based Capstone archiving management system enables users to monitor and manage the capstone projects of BukSU IT Department students during the title proposal until the study is published.

After developing the prototype of the application, the proponents conducted a survey to gather feedback from the respondents, who are frequent clients and users of web-based Capstone archiving management systems and who tried and tested the application to determine whether it is functional and effective. To properly evaluate the system, the proponents created a questionnaire based on ISO/IEC 25010 software evaluation. It consists of twenty-one (21) questions that are divided into six (6) parts, which are the following: functional suitability, performance efficiency, compatibility, usability, reliability, and security.

## **5.2 Conclusions**

## **5.3 Recommendations**

This web-based application is designed and only available in Bukidnon State University, which helps the IT Department to monitor the digitized approved capstone projects of third-year and fourth-year students and maintain the safety of the documents in terms of physical and digital harm. We recommend to the school to implement the developed system in order to avoid the repetition of proposals and analyze any gaps in their capstone projects, which was experienced by the students, as being discussed in the previous chapters of the study. The possible administrator of the system must be the chairperson, and all the instructors in the IT department handling capstone subjects must make sure that the person with full access to the system is credible enough to hold its overall information. The possible location for the system implementation should be in the BukSU IT Department, where there could be software compatibility



## REFERENCES

(2021, June). Optical Character Recognition based Webapp.

<https://www.researchgate.net/scientific-contributions/Akshay-Gharde-2196410758>

Conger, L. (2022, May 14). *Site owners need to consider web hosting storage space— How much is needed?* HostAdvice. Retrieved September 4, 2022, from

<https://hostadvice.com/blog/how-much-web-hosting-storage-do-you-need-for-your-site/>

del Rosario, E., del Rosario, J., Nieva, M., Tan, T., & Tangkek, M. (2016, March 9).

*CollaborateIT: A CCS IT Thesis Portal with Electronic Document Management System.*

De La Salle University. Retrieved September 3, 2022, from

<https://www.dlsu.edu.ph/wp-content/uploads/pdf/conferences/research-congress-proceedings/2016/HCT/HCT-II-01.pdf>

Dutta, S., Shruti, Kour, H., & Bhagat, C. (2013, May). *Digital Document Archiving System with Optical Character Recognition.* ResearchGate.

[https://www.researchgate.net/publication/341454298\\_Digital\\_Document\\_Archiving\\_System\\_with\\_Optical\\_Character\\_Recognition](https://www.researchgate.net/publication/341454298_Digital_Document_Archiving_System_with_Optical_Character_Recognition)

Fisher, T. (2020, May 12). *File Size Limits (Online/Cloud Backup Services).* Lifewire. Retrieved September 4, 2022, from <https://www.lifewire.com/file-size-limits-2617914>

Garfield, S. (2017, June 15). Archiving, Document Management, and Records Management. # 49, 102, and 103 in KM 102.

<https://stangarfield.medium.com/archiving-document-management-and-records-management-6622023eb488>

Gilles, A. (2019, December). *Online Thesis Archiving System for University of Makati*. Scribd.

Retrieved September 3, 2022, from

<https://www.scribd.com/document/360761818/Abstract-of-Online-Thesis-Archiving-System-for-University-of-Makati>

Jayoma, J., Morales, E. M. O., & Moyon, E. (2020, December). *OCR Based Document Archiving and Indexing Using PyTesseract: A Record Management System for DSWD Caraga, Philippines*. ResearchGate.

[https://www.researchgate.net/publication/350998841\\_OCR\\_Based\\_Document\\_Archiving\\_and\\_Indexing\\_Using\\_PyTesseract\\_A\\_Record\\_Management\\_System\\_for\\_DSWD\\_Caraga\\_Phippines](https://www.researchgate.net/publication/350998841_OCR_Based_Document_Archiving_and_Indexing_Using_PyTesseract_A_Record_Management_System_for_DSWD_Caraga_Phippines)

K, R., S., S., S., R., & P., C. (2017, May). *MySRT management system for senior project document repository and tracking*. IEEE Xplore.

[ieeexplore.ieee.org/abstract/document/8075299/](http://ieeexplore.ieee.org/abstract/document/8075299/)

Miñon, J. D. F., Lim, C. M. A. L., Morano, J. A. L., Fajutagana, R. F., & Fabito, B. F. (2016). *An Intranet-based Document Management and Monitoring System framework: A case for the National University Quality Management Office*. IEEE.

10.1109/TENCON.2016.7848431

Ndungu, F. (2019, March 26). *How to Work With BLOB in a MySQL Database Hosted on Alibaba Cloud*. DZone. Retrieved September 4, 2022, from

<https://dzone.com/articles/how-to-work-with-blob-in-mysql-database-hosted-on>

Schmidt, G. J. (2020, October 14). *Benefits of OCR and Document Management*.

HelpSystems. Retrieved September 4, 2022, from

<https://www.helpsystems.com/blog/benefits-ocr-and-document-management>

Ugale, M. K., Patil, S. J., & Musande, V. B. (2017). *Document management system: A notion towards paperless office*. IEEE. 10.1109/ICISIM.2017.8122176

Zulqadar, A. (2019, February 12). *SDLC Waterfall Model*. REZAID.

<https://rezaid.co.uk/sdlc-waterfall-model/>

Richey, R. C. (n.d.). *ERIC - ED373753 - Developmental Research: The Definition and Scope.*, 1994. ERIC. Retrieved November 15, 2022, from <https://eric.ed.gov/?id=ED373753>

*Data-flow diagram.* (n.d.). Wikipedia. Retrieved November 16, 2022, from [https://en.wikipedia.org/wiki/Data-flow\\_diagram](https://en.wikipedia.org/wiki/Data-flow_diagram)

Guide, S. (n.d.). *Process Flow Diagram (PFD): A Complete Guide*. Zen Flowchart. Retrieved November 16, 2022, from <https://www.zenflowchart.com/guides/process-flow-diagram>

Heiliger, E. (n.d.). *Flowchart*. Wikipedia. Retrieved November 16, 2022, from <https://en.wikipedia.org/wiki/Flowchart>

Richey, R. C. (n.d.). *ERIC - ED373753 - Developmental Research: The Definition and Scope.*, 1994. ERIC. Retrieved November 15, 2022, from <https://eric.ed.gov/?id=ED373753>

TechTarget. (n.d.). *What is prototype? - Definition from WhatIs.com*. TechTarget. Retrieved November 16, 2022, from <https://www.techtarget.com/searcherp/definition/prototype>

Toolshero. (2022, November 1). *What is a conceptual framework? Definition, theory and example.*

Toolshero. Retrieved November 16, 2022, from

<https://www.toolshero.com/problem-solving/conceptual-framework/>

UML Use Case Diagram Tutorial. (n.d.). Lucidchart. Retrieved November 16, 2022, from

<https://www.lucidchart.com/pages/uml-use-case-diagram>

Home. (n.d.). YouTube. Retrieved November 24, 2022, 2022, from

<https://buksu.edu.ph/cot/academic-programs/bachelor-in-science-in-information-technology/>

Requirements Analysis - Understand Its Process & Techniques. (2018, October 25). ReQtest. Retrieved

November 24, 2022, from <https://reqtest.com/requirements-blog/requirements-analysis/>

What is a Web-Based Application? - Definition from Techopedia. (2022, May 30). Techopedia. Retrieved

November 20, 2022, from <https://www.techopedia.com/definition/26002/web-based-application>

Functional and Non-functional Requirements: Specification and Types. (2021, July 23). AltexSoft.

Retrieved November 26, 2022, 2022, from

<https://www.altexsoft.com/blog/business/functional-and-non-functional-requirements-specification-and-types/>

Hanna, T. (n.d.). What Is Alpha Testing? Definition from SearchSoftwareQuality. TechTarget. Retrieved

November 29, 2022, 2022, from

<https://www.techtarget.com/searchsoftwarequality/definition/alpha-testing>

UML Use Case Diagram Tutorial. (n.d.). Lucidchart. Retrieved November 27, 2022, from

<https://www.lucidchart.com/pages/uml-use-case-diagram>

McGath, G. (2022, November 21). 000webhost Reviews 2022. Digital.com. Retrieved November 30,

2022, from <https://digital.com/best-web-hosting/000webhost/>



## **Curriculum Vitae**

## **APPENDICES**

**APPENDIX A**  
Memorandum of Understanding- Adviser

## APPENDIX B

### Adviser's Certificate

BUKIDNON STATE UNIVERSITY  
Malaybalay City, Bukidnon, 8700  
Tel (088) 813-5661 to 5663; TeleFax (088) 813-2717;  
[www.buksu.edu.ph](http://www.buksu.edu.ph)

College of Arts and Sciences

INFORMATION TECHNOLOGY DEPARTMENT

## ADVISER'S CERTIFICATE

Capstone Project Title:  
**Barangay Information and Records Management System**

Authors:  
**Chader L. Tuto, Rosilbert J. Navarez, Lloyd Jason D. Vicente**

Group Name:  
**Llocharos**

has been modified by the students and thoroughly re-checked by myself as Content and Technical Adviser on the following grounds as per comments issued by the Panel of Experts:

(Kindly tick, which is applicable)

	CHECKED	N/A
1- I have re-checked Chapters 1-5.	/	
2- I have re-checked the Abstract.	/	
3- I have re-checked the Publishable Paper Format.	/	
4- I have re-checked the Plagiarism.	/	
5- I have re-checked the Appendix.	/	
6- I have re-checked the APA Format.	/	
7- I have re-checked the Software.	/	

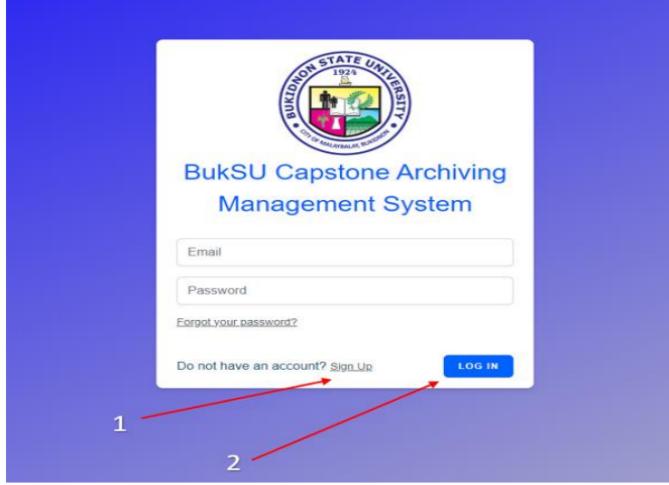
I certify and fully endorse the final submission of this capstone paper for approval by the Chairperson of the IT Department and the Dean of College of Arts and Sciences.

*Joan Marie M. Panes*  
Joan Marie M. Panes  
Adviser

11/14/18

Date Issued

**APPENDIX C**  
**User Manual**  
**STUDENT MANUAL**

<b>2. AUTHENTECATION</b>	<p>Open the BukSU Capstone Archiving Management System Website and you will be redirected to the login page. (<a href="http://CapstoneArchivingAndMonitoring.000webhostapp.com">CapstoneArchivingAndMonitoring.000webhostapp.com</a>)</p>  <p>1. <b>Signup:</b> If you don't have an account, click the "sign up" button. It can redirect to sign up page.</p> <p>2. <b>Login button:</b> Input your email and password and click the "login" button.</p>  <p>Fill out the required information and then click "sign up".</p>
--------------------------	--

**3. How to edit your profile information?**

Click the "profile" button on the left side.

Then you can edit your profile's information and after editing, click the "update" button.

The screenshot shows the 'Capstone Archiving Management System' interface. On the left, there is a sidebar with buttons for 'PROFILE', 'MY PROJECT' (which is highlighted in blue), 'CAPSTONE LIST', and 'TOPIC SUGGESTION'. The main area is titled 'PROFILE'. It displays a placeholder image of a person, the user's name 'Gerald John Silan Admin', and their college information: 'College of Technology' and 'Bachelor of Science in Information Technology - 3rd year'. Below this, there are input fields for 'University ID' (18091XXXX), 'Email Address' (kating@gmail.com), 'Password', 'First Name' (Gerald John), 'Middle Initial' (None), 'Last Name' (Admin), 'COLLEGE OF TECHNOLOGY' (selected), 'Choose Year' (Year dropdown), and gender ('Male' or 'Female'). A file upload field shows '(Choose File) No file chosen'. At the bottom is a large blue 'UPDATE' button.

**4. How to create capstone project?**

First, click the "my project" button on the left side of your screen.

Then click the "create project" button.

The screenshot shows the 'Capstone Archiving Management System' interface with the 'MY PROJECT' button selected in the sidebar. The main area displays a message 'NO PROJECT FOUND' with a large blue 'CREATE PROJECT' button below it.

Fill out the required information and then click the "create project" button.

The screenshot shows the 'Abstract Or Project Descriptions' form. At the top, there is a text area labeled 'Abstract' with placeholder text 'Abstract...'. Below it is a section titled 'GENERAL INFORMATION' with a 'Title' field containing the placeholder 'Title'. Under 'GENERAL INFORMATION', there are several dropdown and input fields: 'Group Name' (Input Groupname), 'Project Status' (dropdown), 'Choose Year' (dropdown), 'Capstone From' (date: 2022), 'Capstone To' (date: 2022), 'Panel 1' (dropdown), 'Panel 2' (dropdown), 'Panel 3' (dropdown), 'Secretary' (dropdown), 'Proponent' (dropdown), 'Proponent' (dropdown), 'Proponent' (dropdown), 'Proponent' (dropdown), 'Adviser' (dropdown), and 'Co-Adviser' (dropdown). At the bottom is a large blue 'CREATE PROJECT' button.

**5. How to get topic from the topic suggestion? (If you still do not have a project?)**

First, click the “topic suggestion” button on **sidebar** of your screen.

Then click the “view” button.

The first screenshot shows the sidebar with 'TOPIC SUGGESTION' highlighted. The main area displays a table titled 'TOPIC SUGGESTIONS LIST' with two rows. The second screenshot shows a detailed view of a topic, including the title 'Archiving System of BUKSU IT Department Capstone Project using Optical Character Recognition', the uploader 'GERALD JOHN SISON IRUPONA', the date '2022-10-24T10:57:58.00000Z', and the client information 'ARCHIVING SYSTEM OF BUKSU IT DEPARTMENT CAPSTONE PROJECT USING OPTICAL CHARACTER RECOGNITION' and 'CLIENT COMPANY'.

Click the “get topic” button to start your own project.

**6. How to update capstone project?**

Click the “my project” button in sidebar.

This screenshot shows the 'Edit Capstone Project' form. It has sections for 'Title' and 'Abstract'. The 'Information' section contains fields for 'Group Name', 'Advisor', 'Co-Advisor', 'Client Name', 'Client Type', 'Client Address', 'Management (if any)', and 'Project Status' (set to 'UNDER DEVELOPMENT'). The 'Proposals' section lists four projects with dropdown menus for each. At the bottom are buttons for 'Save', 'Update', and 'Delete'.

You can edit the information of your capstone project here.

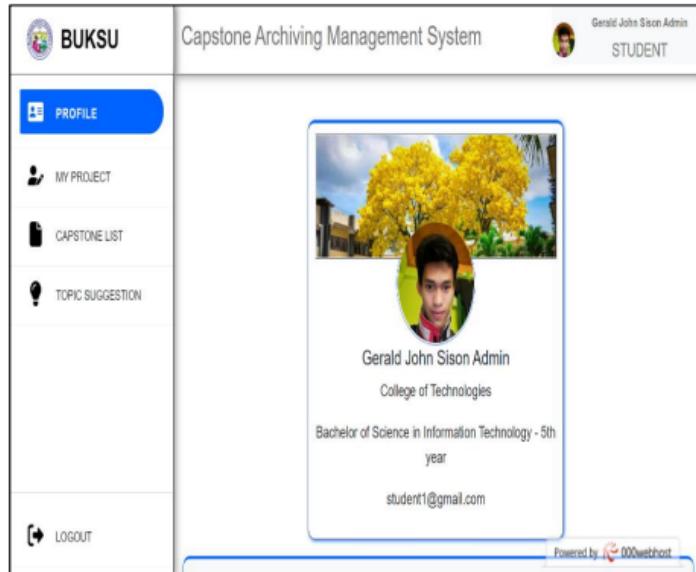
You can also update every phase of the capstone project by clicking the “update” button.

Note that all capstone phase has the same process when you want to update it.

Click the “save” button if you are done editing.

8. How to log out?

Just click the "logout" button on the lower left corner of your screen.



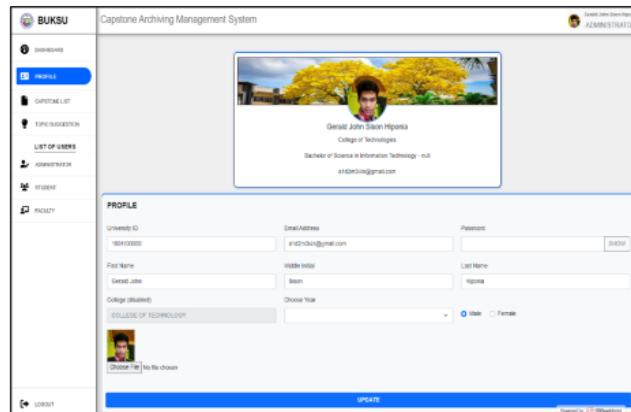
# FACULTY MANUAL

<p><b>1. How to login?</b></p>	<p>Open the BukSU Capstone Archiving Management System Website and you will be redirected to the login page. (<a href="http://CapstoneArchivingAndMonitoring.000webhostapp.com">CapstoneArchivingAndMonitoring.000webhostapp.com</a>)</p>  <p>1 2</p> <p><b>1. Signup:</b> If you don't have an account, click the "sign up" button It can redirect to sign up page.</p> <p><b>2. Login button:</b> Input your email and password and click the "login" button.</p>																	
<p><b>2. Dashboard</b></p>	<p>After logging in you will be redirected to the dashboard of the system. You can then monitor all of the system's stored data.</p>  <table border="1"> <thead> <tr> <th colspan="2">CAPSTONE PHASE STATUS SUMMARY</th> </tr> </thead> <tbody> <tr> <td>CAPSTONE I</td> <td>CAPSTONE II</td> <td>CAPSTONE III</td> </tr> <tr> <td>Number of Group</td> <td>DATA</td> <td>DATA</td> </tr> <tr> <td>In Progress</td> <td>75.00%</td> <td>80.00%</td> </tr> <tr> <td>Pending Review</td> <td>25.00%</td> <td>0.00%</td> </tr> <tr> <td>Approved</td> <td>25.00%</td> <td>0.00%</td> </tr> </tbody> </table>	CAPSTONE PHASE STATUS SUMMARY		CAPSTONE I	CAPSTONE II	CAPSTONE III	Number of Group	DATA	DATA	In Progress	75.00%	80.00%	Pending Review	25.00%	0.00%	Approved	25.00%	0.00%
CAPSTONE PHASE STATUS SUMMARY																		
CAPSTONE I	CAPSTONE II	CAPSTONE III																
Number of Group	DATA	DATA																
In Progress	75.00%	80.00%																
Pending Review	25.00%	0.00%																
Approved	25.00%	0.00%																

### 3. How to edit your profile information?

Click the "profile" button on the left side of your screen.

Then you can edit your profile's information and after editing, click the "update" button.



### 4. List of roles

#	TITLE	GROUP NAME	YEAR	DATE STARTED	ACTION
1	Sales Forecasting Analytic System	Group Name	Graduated		<b>VIEW</b>

1. **Adviser:** it is a list of capstones as an adviser
2. **Instructor:** it is a list of capstones as an instructor on either capstone 1 capstone 2 or capstone 3.
3. **Panel:** it is a list of capstones as a panelist.
4. **Secretary:** it is a list of capstones as a panelist.
5. **View:** it is a button to open a capstone project.

## 5. Opening a capstone.

The screenshot shows the Capstone Archiving Management System interface. On the left is a sidebar with navigation links: DASHBOARD, PROFILE, CAPSTONE LIST, TOPIC SUGGESTION, STUDENT, CAPSTONE ROLE, ADVISOR, INSTRUCTOR, PANEL, SECRETARY, and LOGOUT. The main area is titled "Capstone Archiving Management System". It displays a project abstract with placeholder text "LOREM IPSUM" and "TITLE". Below this is a "PROJECT DESCRIPTION/ABSTRACT" section with detailed project information. A red arrow labeled "1" points to the "OPEN MANUSCRIPT" button. Another red arrow labeled "2" points to the "VIEW" button under "Capstone 1 Status: Under-revision". A third red arrow labeled "3" points to the "VIEW" button under "Capstone 2 Status: Development". A fourth red arrow labeled "4" points to the "VIEW" button under "Capstone 3 Status: Under-revision". The right side of the screen shows user details: John S. Sison (FACULTY), JOHN S. SISON, JOHN S. DELACRUZ, JANREY G. BIKTOR, JOHN B. SISON, DEMB G. ELIZARDE, PHEBE ALCAIRO BILLONES, and GREGORY E. EFE. The status for each panelist is listed: NULL, UNDER DEVELOPMENT, Client, Status, Panel 1, Panel 2, Panel 3, Panel 4, JOHN B. SISON, Secretary, JOHN B. SISON, GREGORY E. EFE, and JOHN B. SISON.

1. **Opening a manuscript:** it is color blue when the proponents submit a manuscript and agree to view their project, and color yellow when the student did not submit or did not agree to consent.
2. Opening a capstone 1 project
3. Opening a capstone 2 project
4. Opening a capstone 3 project

## 6. Opening on either capstone 1 capstone 2 or capstone 3.

The screenshot shows the Capstone Archiving Management System interface. The left sidebar includes links for ADVISOR, INSTRUCTOR, and SECRETARY. The main area is titled "CAPSTONE 1" with placeholder text "TRIALLLLS LOREM IPSUM" and "Title". Below this is a "PROJECT DESCRIPTION" section with detailed project information. A red arrow labeled "1" points to a green "OPEN" button in a row of four buttons. Another red arrow labeled "2" points to a green "OPEN" button in a row of four buttons. A third red arrow labeled "3" points to a red-bordered section titled "PANELIST" which contains three status boxes: APPROVED (green), PENDING (yellow), and PENDING (yellow). To the right is a "RATE" section with a red border, showing a rating of "PARTIAL, 31.67 %". Further down is a "DDQQ" section with a red border, containing a "Group Name" field with "JOHN S. SISON" and an "Instructor" field with "JOHN S. SISON". Below this is an "Adviser" section with "JOHN S. DELACRUZ" and "2023-11-18 Date of Proposal Defense". At the bottom is a "WORKING CHAPTER 1,2,3" section with a "STATUS" field.

1. **Course file:** It show a color yellow when the student did not submit means pending, and color green when there is a file.
2. **Data:** some data like propose date and status.
3. **Panel rating:** display the rating of the panel, and also shows the status on either approve, partial or pending.

## 7. Rating (available on panelist only)

Capstone Archiving Management System							
CAPSTONE 1 EVALUATION RUBRIC							
Category	4-Excellent	3-Good	2-Average	1-Needs Improvement	Weight(%)	Score	Rating(%)
<b>Background of the Study</b>	Used formulated background of the study. The evidence is supported with 5 or more strong sources of evidence specific to the topic.	Fairly well formulated background of the study. The evidence is supported with 3 or more strong sources of evidence specific to the topic.	@The background of the study is not well formulated. There are less than 3 sources of weak evidence to support the logic.	Lacks proper background of the study. There are less than 2 sources of weak evidence to support the logic.	5	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	5
<b>Objectives of the Study</b>	5 research articles are appropriately selected and cited.	3-4 research articles are appropriately selected and cited.	1-2 research articles are appropriately selected and cited.	Citations are not related.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	5
<b>Significance of the Study</b>	The general objective specifies the main function of the system, and a platform for development.	The general objective specifies the main function of the system, and a platform for development.	The general objective specifies the main function of the system, and a platform for development.	The general objective does not clearly state the main function of the system, and a platform for development.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Scope and Limitation</b>	The specific objectives enumerate the steps in planning, designing, developing, engineering, and evaluating the system.	The specific objectives enumerate the steps in developing, engineering, and evaluating the system.	The specific objectives enumerate the steps in developing, engineering, and evaluating the system.	The specific objectives enumerate the steps in developing, engineering, and evaluating the system.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Definition of terms</b>	3 comprehensive objectives stated comprehensively and clearly.	Stated 3 objectives but not clearly explained.	Stated 3 objectives & not clearly explained.	Stated less than 3 objectives with no clear explanation.	2	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	2
<b>Literature Review</b>	Very clearly stated who will benefit from the study (population, community, organization, industry, etc.)	Fairly well stated who will benefit from the study (population, community, organization, industry, etc.)	Not clearly stated who will benefit from the study (population, community, organization, industry, etc.)	Lacks statement as to who will benefit from the study (population, community, organization, industry, etc.)	5	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	3.75
<b>Methodology</b>	Include the following: brief statement of the processes and procedures for executing the study, research design, system architecture/conceptual design, process model, use case, and UML diagram.	Include the following: brief statement of the processes and procedures for executing the study, subject matter and topics, the location of the study, the period of the study, and a platform for development.	Include the following: brief statement of the processes and procedures for executing the study, subject matter and topics, the location of the study, and a platform for development.	Include the following: brief statement of the processes and procedures for executing the study, subject matter and topics, the location of the study, and a platform for development.	10	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	10
<b>References</b>	Lists the important key words and defines the technical and operational definitions.	Fairly defines the technical and operational definitions.	Technical and operational terms are not clearly defined.	Technical and operational terms are not defined.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	3.75
<b>Formatting</b>	Bibliography consists of 5-10 literature items (what, when, where, how).	Bibliography 5-10 literature items (what, when, where, how).	Bibliography 5-10 literature items (what, when, where, how).	Bibliography less than 5. Bibliography does not include the knowledge of the literature or previous work in the field or general.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Oral communication skills</b>	Demonstrates a strong familiarity with the literature or previous work such as the field or general.	Study addresses questions in the field or general.	Study addresses questions in the field or general.	Study does not address questions in the field or general.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	3.75
<b>PPT &amp; Video presentation</b>	Includes the following: brief statement of the processes and procedures for executing the study, research design, system architecture/conceptual design, process model, use case, and UML diagram.	Includes the following: brief statement of the processes and procedures for executing the study, research design, system architecture/conceptual design, process model, and use case.	Includes the following: brief statement of the processes and procedures for executing the study, research design, system architecture/conceptual design, process model, and use case.	Includes the following: brief statement of the processes and procedures for executing the study, research design, system architecture/conceptual design, process model, and use case.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Attire</b>	The group were all in proper business attire, well-groomed and appropriate for presentation.	Few of the group members were not in proper business attire.	Most of the group members were not in proper business attire.	Group members were not in proper business attire.	5	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	5
<b>Response to Inquiry</b>	Student demonstrates full knowledge by answering questions with explanations and elaboration.	Student shows adequate knowledge by answering questions with little or no detail or elaboration.	Student shows little knowledge by answering questions with little to no detail or elaboration.	Student shows little knowledge by answering questions with no detail or elaboration.	10	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	10
<b>TOTAL</b> <span style="color:red">3</span> <span style="color:red">2</span> <span style="color:red">1</span> <span style="color:red">→</span> <span style="color:green">100</span> <span style="color:green">→</span> <span style="color:green">RATING : 95.75 %</span> <span style="color:green">REMARKS : Passed with minor revisions</span>							
<input type="button" value="APPROVE AND SUBMIT"/>							

This module is only available for panelist of the project, they can tap the radio button to give a score.

- Rating:** It is a total score that base on score weight on each item.
- Partial:** It is to saved and mark as partial.
- Approved:** It is to saved and mark as approved.

## 8. Secretary

The screenshot shows the Capstone Archiving Management System interface. On the left, there's a sidebar with various navigation links: DASHBOARD, PROFILE, CAPSTONE LIST, TOPIC SUGGESTION, STUDENT, CAPSTONE ROLE (with sub-options ADVISER, INSTRUCTOR, PANEL, and SECRETARY), and LOGOUT. The main content area is titled "Capstone Archiving Management System". At the top right, it shows "John A. Sison" and "FACULTY". Below the title, there's a section for "PROJECT DESCRIPTION/ABSTRACT" with placeholder text. Under "LOREM IPSUM", it says "TITLE". There's a table with columns for "Group Name", "2022 - 2023", "Status", and "School Year". The table rows represent different capstones, each with a panel header and a list of members. Red numbers 1 through 4 are overlaid on the interface to point to specific buttons: 1 points to a "Choose File" input field, 2 points to a blue "UPLOAD" button, 3 points to a green "VIEW" button, and 4 points to a yellow "NOT YET UPLOADED" message.

Only the secretary can view this module, when they tap the view button of list of capstones as a secretary.

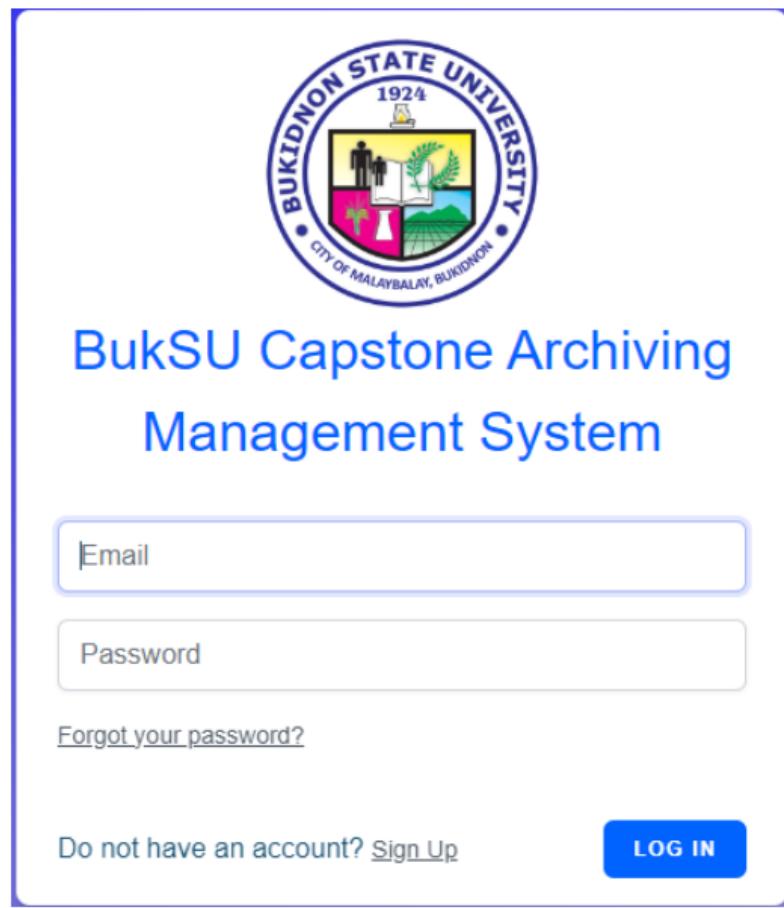
- 1. Upload pdf file.**
- 2. Upload button.**
- 3. View button.**
- 4. View button when the secretary has not yet submitted a secretary minutes.**

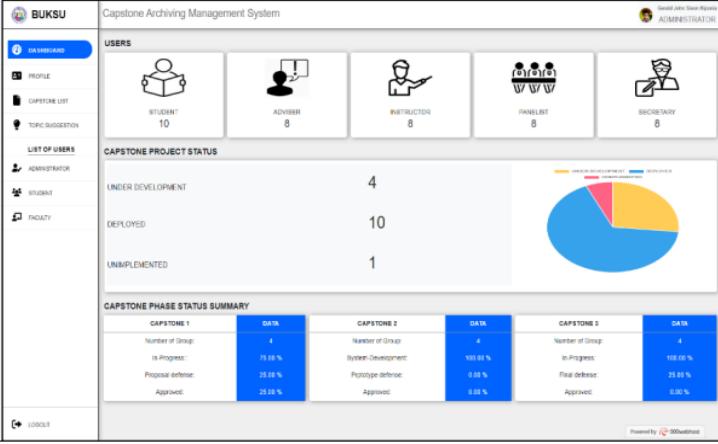
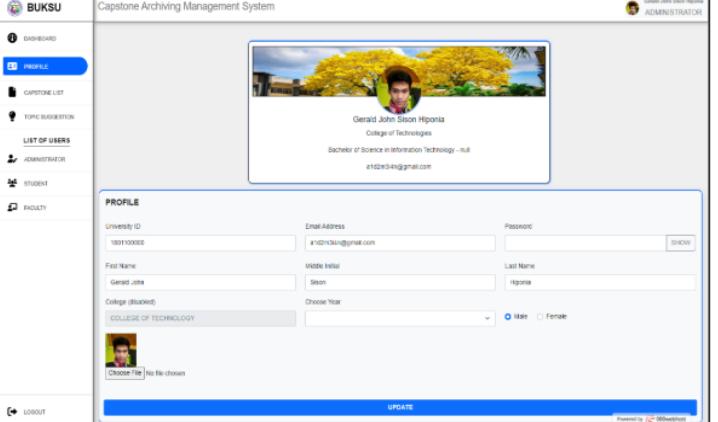
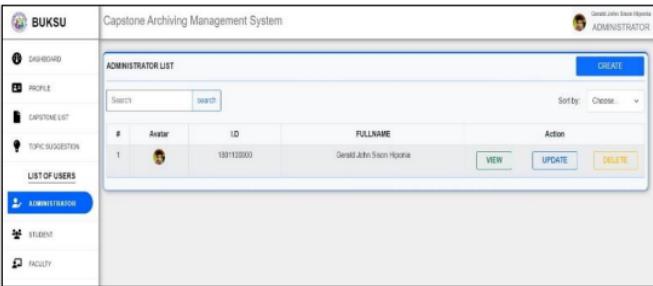
Only the proponents of the project can view the secretary minutes.

## ADMINISTRATOR MANUAL

**1. How to login?** Open the BukSU Capstone Archiving Management System Website and you will be redirected to the login page.

Input your email and password and click the “login” button.



<p><b>2. How to monitor data?</b></p>	<p>After logging in you will be redirected to the dashboard of the system.</p> <p>You can then monitor all of the system's stored data.</p> 
<p><b>3. How to edit your profile information?</b></p>	<p>Click the "profile" button on the left side of your screen.</p> <p>Then you can edit your profile's information and after editing, click the "update" button.</p> 
<p><b>4. How to create a user?</b></p>	<p>First, click the "administrator" button below the "list of users" menu.</p> <p>Then click the "create" button in the upper right corner.</p> 

Note that user creation for administrator, faculty and students is the same process.

There will be an option for the type of user you will create.

Fill out the required information and then click the "save user" button.

The screenshot shows a 'CREATE USER' form with the following fields:

- University ID: University ID (text input)
- Email Address: Email Address (text input)
- Password: Input Password (password input) with a 'SHOW' link
- First Name: First Name (text input)
- Middle Name: Middle Name (text input)
- Last Name: Last Name (text input)
- College (disabled): COLLEGE OF TECHNOLOGY (disabled dropdown)
- Year (Student): Year (Student) (dropdown menu)
- User Type: User Type (dropdown menu)
- Avatar: Choose File (input field) with 'No file chosen' placeholder and a small user icon
- Buttons: SAVE USER (blue button)

You can view, update and delete user.

Just click the button and the system will perform the action.

Note that the "update" button will have the same functions of how you edit your profile.

STUDENT LIST						CREATE
#	Avatar	ID	FULLNAME	YEAR	Action	
1		1801100000	Gerald John Sison Admin	5th year	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
2		1801100000	Jhonrey Capasan Victor	null	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
3		1801100000	Phebe Alcaro Billones		<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
4		1801100000	Dems Brail Gargar Elizande		<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	

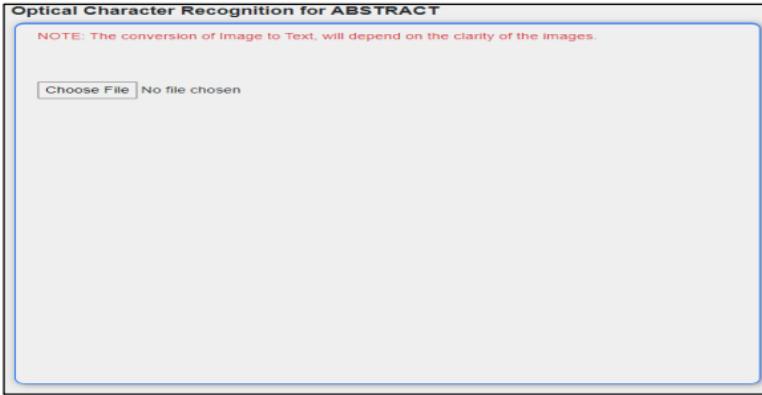
## 5. How to upload scanned documents from capstone projects of graduate students?

First, click the "capstone list" button on the left side of your screen.

Then click the "create" button in the upper right corner.

CAPSTONE LIST							CREATE
#	TITLE	GROUP NAME	YEAR LEVEL	SCHOOL YEAR	STATUS	ACTION	
1	Title	Title	Graduated	2022-2022	DEPLOYED	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
2	trialss	dq	4th year	2022-2022	UNDER DEVELOPMENT	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
3	Loren ipsum	Loren ipsum	4th year	2022-2022	UNDER DEVELOPMENT	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	
4	xhsksk	jnn	4th year	2022-2022	UNDER DEVELOPMENT	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>	

Click the “choose file” button.

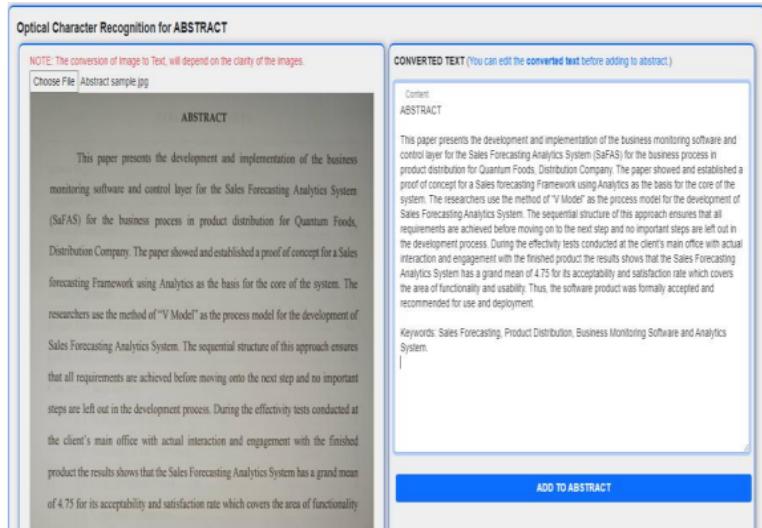


After choosing the file it will take some time to read.

Note that it will only accept image file format since OCR technology is for conversion from image to text.



When you are done editing, click the “add to abstract” button. There will be a prompt that you’ve successfully added the abstract.



You can also use OCR for the title of the study by repeating the process. Don't click the “add to abstract” button, just copy and paste it to the title text area.



Note that you can still edit the text in the abstract and title text area.

After editing the abstract click "save abstract" for it to be saved in the database. Otherwise, the edited text will not be included.



Choose File: 340719855\_46196\_n.jpg

INFO TRUCK: AN E-LOGISTICS TRUCKING FINDER WITH SEARCH OPTIMIZATION

A Capstone Project presented to the  
Information Technology Department  
College of Arts and Sciences

INFO TRUCK: AN E-LOGISTICS TRUCKING FINDER WITH SEARCH OPTIMIZATION

A Capstone Project presented to the  
Information Technology Department  
College of Arts and Sciences

ABSTRACT

Abstract Or Project Descriptions

This paper presents the development and implementation of theッシュ  
monitoring software and control layer for the Susti Paracauding Logistics  
Distribution Company. The paper showed and established a proof of concept for a full  
functional system. The system is a web-based application for tracking and monitoring. The  
researchers use the method of "V Model" as the process model for the development of  
the system. The system has a modular architecture which makes it easier to maintain and  
that requirements are achieved before moving onto the next step and no important  
requirements are missed.

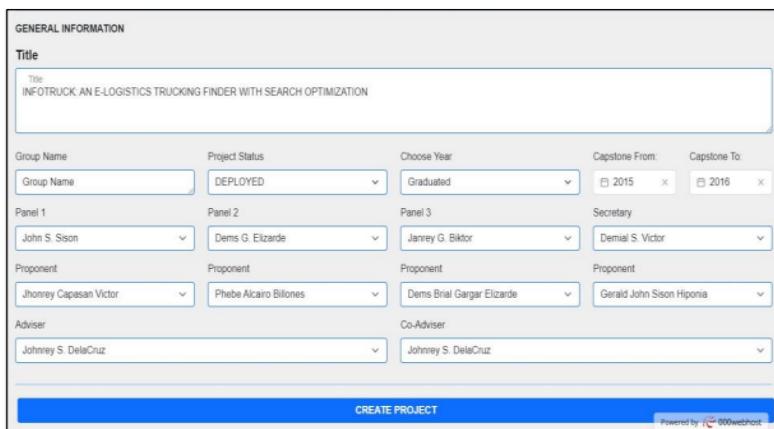
SAVE TO ABSTRACT

GENERAL INFORMATION

Title

INFO TRUCK: AN E-LOGISTICS TRUCKING FINDER WITH SEARCH OPTIMIZATION

Choose the related information by clicking the drop-down button.



GENERAL INFORMATION

Title

INFO TRUCK: AN E-LOGISTICS TRUCKING FINDER WITH SEARCH OPTIMIZATION

Group Name Project Status Choose Year Capstone From Capstone To

Group Name DEPLOYED Graduated 2015 2016

Panel 1 Panel 2 Panel 3 Secretary

John S. Sison Dems G. Elizade Janrey G. Bikit Demial S. Victor

Proponent Proponent Proponent Proponent

Jhorey Capasan Victor Phobe Alcairo Billones Dems Brial Gargar Elizade Gerald John Sison Hiponia

Adviser Co-Adviser

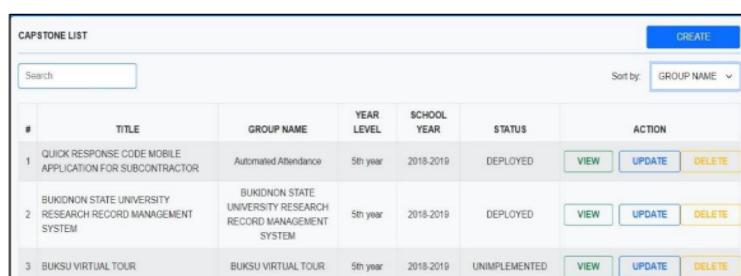
Johnrey S. DelaCruz Johnrey S. DelaCruz

CREATE PROJECT

After filling up, click the "create project" button for completion. The project can now be viewed in the capstone list menu.

## 6. How to update capstone project?

Choose a capstone project and then click the "update" button.



#	TITLE	GROUP NAME	YEAR LEVEL	SCHOOL YEAR	STATUS	ACTION
1	QUICK RESPONSE CODE MOBILE APPLICATION FOR SUBCONTRACTOR	Automated Attendance	5th year	2018-2019	DEPLOYED	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>
2	BUKIDNON STATE UNIVERSITY RESEARCH RECORD MANAGEMENT SYSTEM	BUKIDNON STATE UNIVERSITY RESEARCH RECORD MANAGEMENT SYSTEM	5th year	2018-2019	DEPLOYED	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>
3	BUKSU VIRTUAL TOUR	BUKSU VIRTUAL TOUR	5th year	2018-2019	UNIMPLEMENTED	<button>VIEW</button> <button>UPDATE</button> <button>DELETE</button>

You can edit the information of your capstone project here.



You can also update every phase of the capstone project by clicking the "update" button.

The screenshot shows a form for managing a capstone project. It includes fields for the title ('QUICK RESPONSE CODE MOBILE APPLICATION FOR SUBCONTRACTOR'), abstract, group name ('Automated Attendance'), project status ('DEPLOYED'), and duration ('5th year'). It lists roles such as Advisor, Panel 1, Proponents, and Capstone 1-3, each with dropdown menus for temporary, permanent, or other statuses. Buttons for 'VIEW' and 'UPDATE' are available for each capstone phase. A 'Save' button at the bottom right is highlighted in blue.

Follow the guides and fill out the required information. After completion, click the "save" button.

This screenshot shows a specific section of the application for approving dates. It has fields for 'Date Approved' (a date input field), 'Instructor' (a dropdown menu), 'Choose Status' (another dropdown menu), 'Status' (a dropdown menu with the option 'Working Cahapter 1,2,3'), and a prominent blue 'SAVE' button at the bottom.

Note that all capstone phase has the same process when you want to update it.

Click the "save" button if you are done editing.

This screenshot shows the interface for updating multiple capstone phases simultaneously. It features three separate boxes for 'Capstone 1', 'Capstone 2', and 'Capstone 3', each with 'VIEW' and 'UPDATE' buttons. Below these boxes is a large blue 'Save' button.

## 7. How to create topic suggestion?

First, click the "topic suggestion" button on the left side of your screen. Then click the "create" button in the upper right corner.

This screenshot shows the 'TOPIC SUGGESTIONS LIST' page. It displays a table with columns for '#', 'TITLE', 'DATE CREATED', 'STATUS', and 'ACTION'. The table contains two entries. The 'ACTION' column for both rows has buttons for 'VIEW', 'UPDATE', and 'DELETE'. Above the table is a 'CREATE' button. On the left, there's a sidebar with icons for Dashboard, Profile, Capstone List, Topic Suggestion (highlighted in blue), List of Users, and Administrator. At the top right, there's a user profile for 'Gerald John Sison Iapepe' and an 'ADMINISTRATOR' role indicator.

Fill out the required information and then click the “create topic” button.

CREATE TOPIC SUGGESTIONS

**TITLE**

Title

**TOPIC DESCRIPTION**

Description

**INFORMATION**

Client Name      Client Company

Input Client Name       Input Company Name

Client Location      Thoughts

Input Client Location       Thoughts about the topic

**CREATE TOPIC**

You can view, update and delete topic suggestion. Just click the button and the system will perform the action. The “update” button will have the same function when you create a topic suggestion.

TOPIC SUGGESTIONS LIST

**CREATE**

Search      Sort by:

#	TITLE	DATE CREATED	STATUS	ACTION
1	wfwfw	2022-10-24T10:58:28.000000Z	Available	<input type="button"/> VIEW <input type="button"/> UPDATE <input type="button"/> DELETE
2	Archiving System of BuKSU IT Department Capstone Project using Optical Character Recognition	2022-10-24T10:57:58.000000Z	Available	<input type="button"/> VIEW <input type="button"/> UPDATE <input type="button"/> DELETE



**APPENDIX E**  
Certificate of Utilization  
( from the client)



*hereby presents this*

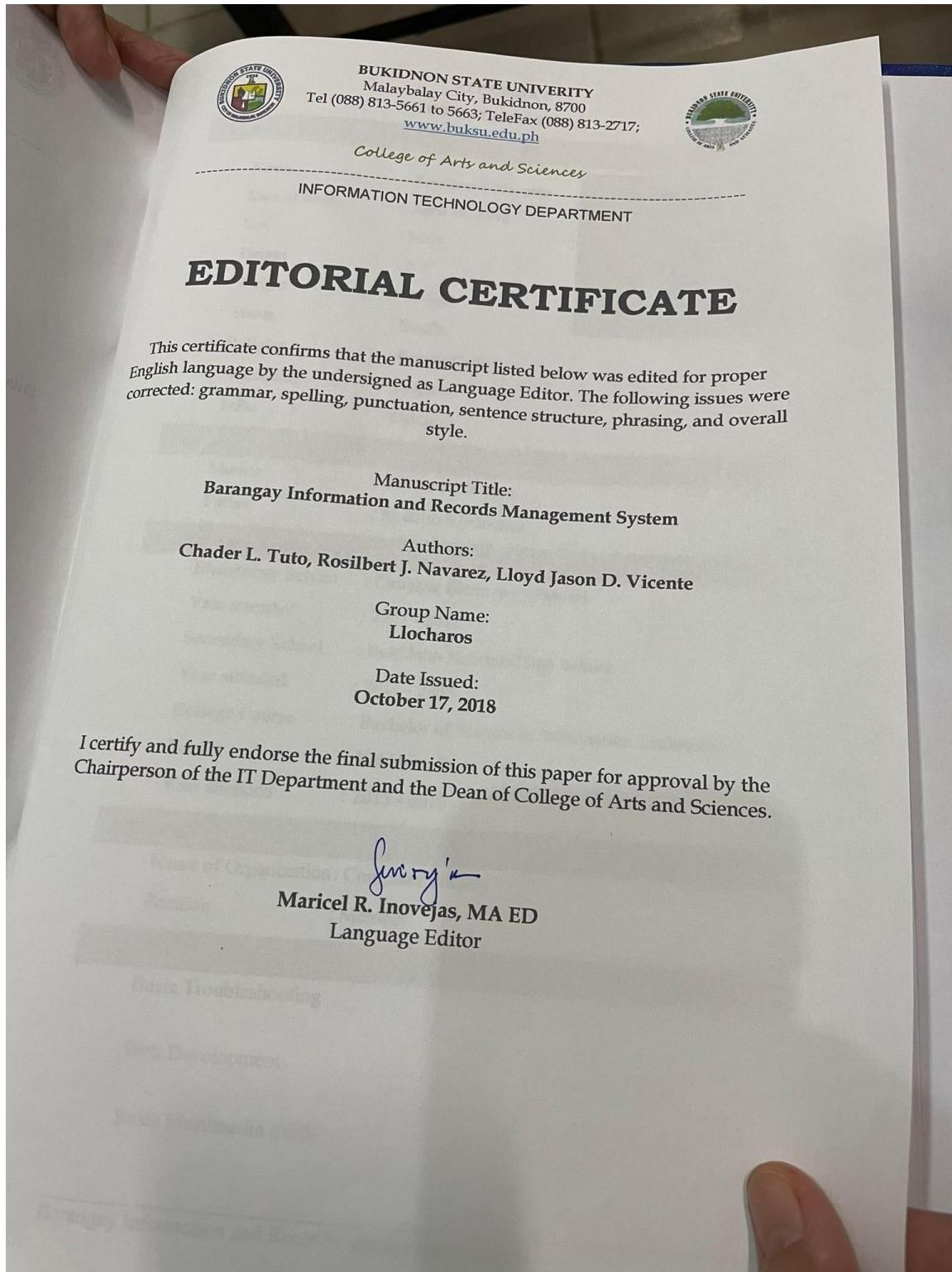
**CERTIFICATE OF UTILIZATION**

to

Jean K. P. B. B. and Agustine A. Fiam

## APPENDIX F

### Editorial Certificate



## **APPENDIX G**

Grammarly

**APPENDIX H**  
Plagiarism Certificate

## APPENDIX I



BUKIDNON STATE UNIVERSITY  
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[www.buksu.edu.ph](http://www.buksu.edu.ph)



College of Arts and Sciences

INFORMATION TECHNOLOGY DEPARTMENT

### EDITION STATE STATISTICIAN'S CERTIFICATE

This certificate is issued to confirm that the manuscript below was edited for PROPER  
English language by the IT Department Statistician. The following names were  
involved in the editing process:

This certificate confirms that the manuscript listed below has undergone statistical  
review including analysis and interpretation of data.

Manuscript Title:  
**Barangay Information and Records Management System**

Authors:  
**Chader L. Tuto, Rosilbert J. Navarez, Lloyd Jason D. Vicente**

Group Name:  
**Llocharos**

Date Issued:  
**October 17, 2018**

I certify and fully endorse the final submission of this paper for approval by the  
Chairperson of the IT Department and the Dean of College of Arts and Sciences.

**Dr. Alfeo B. Tulang**  
Statistician