DEVELOPMENT OF A DOCUMENT MANAGEMENT SYSTEM

A Capstone Project

Presented to the faculty of the

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For the degree Bachelor of Science in Information Technology

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APPROVAL SHEET

The Capstone Project Study entitled **Development of a Document Management System** prepared and submitted by Obus Group has been examined and is recommended for approval and acceptance.

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DEDICATION

This endeavor was made possible by the guidance of our All-Powerful God, our family, and our friends. Thank you to our parents for their unending moral, spiritual, and financial support.

Additionally, we would like to express our gratitude to our advisor and friends, whose unwavering support made it possible for the project to be envisioned and completed. They shared their words, help, and support with us throughout this process and journey.

We also gave this to our all-loving God, whom we shall always adore. We are grateful for your strength, expertise, protection, and abilities as well as for preserving our overall health throughout the year. All of this is made available to you.

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EXECUTIVE SUMMARY

This study aimed to design, develop, and evaluate a web-based document management system for Sangguniang Bayan in Zone 1 in Sogod, Southern Leyte. The system provided a highly efficient for an organization to guarantee that electronic copies of ordinance documents are available whenever they are required and to assist in improving the regular filing of ordinances. Additionally, it simultaneously organizes, tracks, and stores file documents, using less paper and being a useful technique for tracking file ordinances. It makes it simple for users to upload, search, examine, edit, display, delete, and view the status of an ordinance. Furthermore, it makes it simple for users to search for and view information for the general public. Evaluation of the developed system shows that based on ISO25010 standard reveals that is fully functional, mostly reliable, very usable, and very efficient, mostly agree for maintainability and portability, mostly secure and mostly compatible. It is therefore recommended that development of DMS be adopted and to utilized to organizations with similar course relative to managing of documents.

Keywords: document management, web-based, ISO25010, IPO Model, DMS

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Chapter I

INTRODUCTION

This chapter presents the Project Context, Purposed and Description of the Project, Objectives of the Project, and the Scope and Limitations of the Project.

Project Context

A Document Management System (DMS), is a tool for receiving, tracking, managing, and storing documents while also reducing paper usage. The most effective way to maintain track of the numerous versions of digital documents that have been created and edited by different users is to use computer applications for document management (Cruz Carla, in 2020).

These days most of the creating nations utilize a conventional paper records administration framework (DMS), but too the electronic frame of the documentation has expanded counting e-mails, web pages, and database bundles, which have been put away in workstations and servers. To coordinate information gathering in an institution or organization, the electronic report administration framework (EDMS) regularly gets to be one of the foremost required devices for administration. In any case, this necessity ought to be actualized carefully depending on the institution or organization's requirements. Hence, organizations ought to have an EDMS for making, keeping, and organizing information within the organization and handle all synchronization handle. This framework prerequisite for an organization is analyzed, and the computer program plan and distinguishing accessible assets are decided and effectively executed. Recognizing this EDMS from other administration frameworks is that this EDMS employments advanced signature for securing record transportation (Ismael Arkan, Okumu's İbrahim, 2013).

Nowadays everybody interacts with different kinds of documents. Every job is so hard to search manually for the documents of the person or other deal that involves all the paperwork so the Documents Management System is created to help companies and University staff involve paperwork. Janitors, delivery staff, trip guides, and other deals with paperwork when they apply for a job and quit it.

But most of them do not even think about the possibility to make their everyday work much easier and more effective (A. D. Nesterov, 2017). The benefits of DMS includes; Costs are reduced the operating costs of adopting a paper-based solution are continuously increasing as the cost of paper continues to rise.; Misfiled or lost papers, regulatory infractions, paper, and other resource waste, and typical data entry errors can all be significantly reduced with electronic document management (EDM) system; Workflow Improvements By digitizing mission-critical documents in a DMS using artificial intelligence and OCR, you can avoid the pain points associated with disconnected workflows. Keep track of a document archive; Better Teamwork Whether your team works in an office or remotely, a cloud-based DMS makes sharing and collaborating on various documents and processes far easier than traditional document management solutions. Electronic documents can be shared as a secure link using a program like Paper Save, making collaboration as simple as a single click. A DMS can also generate audit trails that show who made which changes and when they were made. Furthermore, with integrated email capture, any correspondence regarding a shared document is tracked and viewable; Recovering from a disaster Business continuity can be maintained even if your organization's operations have been disrupted thanks to cloud-based disaster recovery; Security Improvements a DMS can help a business prepare for costly data breaches and

other cyber dangers by providing Important security features ahead of time; Easy to find Given the advantages of advanced search above, it's clear that DMS makes it easy and fast to search for documents. Documents are sorted according to specific variables that are particularly useful for searching and retrieving; Reduces Storage Space Eliminate the want for steeply-priced document cabinets, boxes, garbage bins, and outsized desks with the aid of using adopting a contemporary-day DMS that shops files within side the cloud and manages a paperless, computerized workflow (Hegazi Tarek, Affiliate Member of the American Society of Civil Engineers, Mohamed Abdelmonem El-Sayed Mohamed Ah Coordinate A, and Rashed Roozbeh, 2013).

Currently, Sangguniang Bayan, Sogod, Southern Leyte has already set up a traditional file gathering of Ordinances in intersection of Conception St. & Osmena Street Zone 1 Sogod, Southern Leyte. They developed a traditional file gathering approach to get their ordinances. The File Ordinances will need to be regularly checked if a paper-based solution is employed, which will result in rising paper costs.

There is currently no system in place for timely maintenance of their file ordinance. The researchers are developing a web-based document management system for Sangguniang Bayan in Zone 1 Sogod, Southern Leyte, which is located at the intersection of Conception Street and Osmena Street. An organization can utilize the electronic filing management system of this suggested project to arrange all its files and digital documents of ordinance. The project aimed to solve the issues that come up regularly when just keeping physical file documents. With the help of tags and metadata, this DMS will make it possible to organize all saved data documents. One of the key components of the suggested system is its capacity to establish and input categories, upload, search, and view,

modify, display, removed. Access to the documents will be protected since usage and access are controlled by the rights granted to the user. Activities connected to the papers are additionally documented.

Purpose and Description of the Project

This Document Management System is a web-based system that allows users to upload documents, search, view, edit, display, remove, and monitor their revisions. It also allows users to create and enter categories. Depending on the roles that have been given to the user, it can control access and privileges to documents. As a result, a secure system with properly integrated procedures linked to document management may operate better and more effectively.

The purpose of the purposed project is the following:

1. manage and control all electric documents of ordinance through PDF Files;
2. ensure the availability of electronic copies of ordinance documents whenever it is needed;
3. control access to documents via various security levels; and
4. Eliminate the issues encountered in traditional data gathering.

Objectives of the Project

Generally, this study aimed to develop a web-based document management system for Sangguniang Bayan in Corner Conception St. & Osmena Street Zone 1 Sogod, Southern Leyte. Specifically, this study aimed to attain the following objectives:

1. To allows secure access to electronic documents through various user access control and privileges within an organization/office.

2. To facilitate easy means of uploading, searching, examining, editing, displaying, deleting, and viewing the status of an ordinance.
3. To facilitate easy methods for searching and viewing for public users.

Scope and Limitation of the Project

This project secure system to restrict access and use of electronic data based on the user's specified role and privileges. The user can input, store, remove, search, view, and track file ordinance with this tool.

The Sangguniang Bayan in Zone 1 of Sogod, Southern Leyte, located at the intersection of Conception Street and Osmena Street, is intended to make use of this study. The Document Management System was created with limitations and for a specific purpose.

1. The system could not operate when there is an absence of electricity.
2. Internet connection is needed.
3. The system will accept files that were created using PDF.

Chapter II

REVIEW OF RELATED LITERATURE

This chapter presents the Related Literature and Studies that serve as guides to the proponents to pursue their project entitled “Development of a Document Management System.”

Related Literature / Theoretical Background

Record keeping is specified as "the process of arranging and storing all the records, files, invoices, etc. connected to a company's or organization's activities" (Cambridge Dictionary). Ololube (2013) emphasized the significance of accurate record keeping and how it impacts and enhances the overall achievement of academic goals. Edwin Grenville Seibels invented 1899 the vertical filing system. Paper documents were arranged in drawers within stacked cabinets in this technique. For most of the twentieth century, the use of cabinets was the primary form of document storage in the business sector (Morley & Parker, 2014). However, problems were encountered with this method of record keeping such as it occupied a lot of physical space and searching for specific documents was difficult. As indicated in the study of Al Shobaki et al., (2017), searching for and editing documents often took employees from more important responsibilities. Paper documents are prone to destruction from fires and floods, or they could be lost due to misplacement or theft (Yaldır & Polat, 2016). Furthermore, maintaining physical archives, and copying and replicating physical documents can incur a high cost (Erguzen, 2015). Adade Dampson Quashigah and Eshun (2018) stated that there is a need for an administrator to store records in media that guarantee their convenience, unwavering quality, realness, and safeguarding however long clients need them. Additionally, Toniwoliba, Maham, and

Abilla (2017) defined record management as "the efficient and systematic control of records (both paper and electronic) throughout their life-cycle from their creation or receipt until the time of their disposal." Every company and its stakeholders benefit from excellent record management. It is a critical component of corporate operations that assures fast and accurate information flows inside and outside the organization, allowing for quick retrieval of relevant data (Agu et al., 2022).

The system of record or document management goes back to the early 1970s when computers were used as document recording and storage equipment in businesses. Document management was described as organizing and managing documentation concerning specific activities and procedures as their importance and use grew over time (Sezgin, 2013). These data can now be stored, indexed, and retrieved from nearly any computer or digital device using electronic document management systems. They can also handle any file format that can be saved locally on a computer network or remotely via cloud storage. Modern technology is providing an increasing number of options for organizations to assist with Record Management. While paper records will continue to exist and be created in the future, mechanical frameworks are predicted to assist organizations in managing their records properly. Information communication technologies (ICTs) provide amazing limits and possibilities in the organization and management of various types of records in a company. Various activities, such as record generation, distribution, and capacity, should be enabled using modern devices, such as PCs, with records management (RM) playing an important role. As a result, the significance of ICTs in organizations might be best demonstrated by how much money organizations spend on these technologies, with total spending expected to reach $1.18 trillion in 2019, up 17.9%

from 2018. Data is becoming increasingly important to organizations all around the world. Data innovations and administrations that enable the computerized alteration of records, the executive's frameworks, and administrations are attracting significant interest from organizations all over the world (Help Net Security, 2019). At the end of the day, associations and states have turned to data innovations as a "solution" to records management concerns due to their ability to address major records management issues such as correspondence challenges, capacity constraints, and time constraints to retrieve information.

The way data is created, gathered, spread, used, transmitted, stored, and recovered with ICTs is changing. They have, for example, been a necessary component in the generation of records. PCs, recorders, and cameras, for example, are examples of ICTs that simplify the process.

Mulauzi et al (2012), stated that today, a record may be efficiently envisioned and made by its initiator on the workstation, and records can be conveniently given in different duplicates with little additional cost. The author further claimed that reports created with ICTs can be produced in a variety of formats, such as paper, microform, or electronic, from a single source archive, and that these additional outcomes can be achieved quickly and with no more effort.

ICTs also help to improve recovery systems and online search engines. ICTs provide clients with better and faster records recovery services. Many people, according to Laudon and Laudon (2012), will never again queue for administrations to receive their records, such as water bills, rates, and income authority charges. People can work from home or anywhere if they have a computer or other relevant devices that can connect to the

internet, such as PDAs and tablets that can be used to recover data. Furthermore, because all records are robotized, it saves money and space in the workplace. Records will not be harmed rapidly because interacting with them is not physical. It is also possible to deliver the best information to the client (i.e., rather than being provided a laborious document of paper records from which they must tirelessly search for the data they require, a client can be given true data). ICTs can also convert raw data into usable data with little additional cost in terms of money and effort. Data is sent on quickly and securely in this manner put away on current innovative gadgets for future reference assuming there is need to do as such. Zhang, Yang, Wang (2020) stressed out that imaging advances can be utilized to change paper reports over completely to computerized (PC discernible) structure to determine the issue of unfortunate states of records when left in paper structure. This interaction is called digitization. Digitization or relocation of records includes changing over paper records into computerized records using checking innovation. It is the most common way of changing over relationship data into computerized design in the branch of document information management that includes a variety of technologies such as digitalization technology, image and text editing, storage formats, and so on. To achieve PDF document programming control, alter the page replacement storage, and the technical page leap through the PDF document loading display. It also helps in advancing the assortments and perceivability of the establishments. Recovering information is likewise quicker.

IEEE (2016) describes Document Management System (DMS) as a system that automates and seamlessly manages the document management process to ensure compliance with all regulatory authorities. DMS manages the entire document lifecycle

process and gives the tools to securely manage a wide range of business documents, including those related to regulated environments. DMS is designed specifically for the management of work instructions and other business areas regulated by the FDA and other global regulatory authorities. To develop a document management system and regulatory submission that can deliver access to anyone authorized anytime, anyplace on any device. The system developed makes use of rich internet technology to replace desk applications with rich internet applications.

Joe Bryne (2020) defined EDMSs as software that centrally stores and organizes documentation in one digital repository. He stated that there are types of EDMS including 'self-built,' proprietary 'on-premise,' and cloud-based solutions. The objective of an EDMS is to bring structured and secure digital filing capabilities, discoverability, and control to all the documentation your business generates so it can function effectively. An EDMS acts as a single source of truth that facilitates collaboration and saves your organization unnecessary costs Shirley N. Weber, Ph.D. (2019) explained that a software package is designed to manage electronic information and records within an organization's workflow. Utilizing various technologies, an EDMS allows a user to manage the creation, storage, and control of records. An EDMS can automate processes and increase efficiency. Before adopting an EDMS, it is necessary to determine how it will fit in with your agency's records management program. It is not a replacement for sound records management practices. Additionally, Techopedia expresses that Electronic Document Management System (EDMS) is a software system for organizing and storing different kinds of documents. This type of system is a more particular kind of document management system, a more general type of storage system that helps users to organize and store paper or digital

documents. EDMS refers more specifically to a software system that handles digital documents, rather than paper documents, although in, some instances, these systems may also handle digitally scanned versions of original paper documents. Electronic document management provides a way to centrally store a large volume of digital documents. Many of these systems also include features for efficient document retrieval.

EDMS has established a strong position with the widespread use of computers in companies as a result of the introduction of information technologies and the development of document management systems (Sezgin, 2013). The benefits of the Electronic Document Management Solution provide time savings, greater physical space utilization, and technology utilization. More flexibility in terms of employee physical location, enhanced Information, document security, and reduced printing, postage stamps, envelopes, and forwarding costs are among the benefits. The study also indicated the document's value and location within the firm. The expectations of customers about electronic document management systems are also influenced.

To summarize, we examined the requirements for electronic document management systems and identified the most critical. Finally, we looked at the requirements for electronic document management systems and determined the most important ones. Customers' first concern is the cost of their purchase. In addition, according to Miranda Petronella VLAD Loredana MOCEAN (2019), they stated that Cloud computing entails storing data and resources on a remote server. A server being is a computer that is different from a personal computer using a client use whose can access data via the Internet using this application. It ensures document transparency for businesses. Yusof, Hashim, and Hussain, (2022) stated that Web frameworks may be

completely secure, or they may allow third-party projects to participate via programming stages. Frameworks for the web are useful tools for storing, organizing, utilizing, and collecting data. These days, online stages have been modernized, by which the clients can approach all data readily available. The clients utilize the Web in their day-to-day routines to get data, shop, and impart with picked internet-based frameworks. This need is rapidly extending in arising nations since it can assist with dealing with any exchange without any problem. Numerous state-run administrations and organizations support the conveyance of online frameworks, which permits them to use existing innovation exchanges and connections with higher productivity and simple access. There are numerous web-based frameworks; for instance, eBay, Craigslist, Amazon Commercial center, Airbnb, what is more, Uber. A web-based framework is not just for business purposes, yet it is additionally for government frameworks, for example, government and e-acquirement frameworks, since it can coordinate the utilization of ICT to further develop client, provider, and different connections. The investigation of online frameworks is a huge piece of the present economy. For instance, the capability of a web-based framework to contribute all out productivity to states and organizations is gigantic. It is critical to recall that each dollar saved as far as cost virtualizing an internet-based framework can straightforwardly add to the efficiency of the country. The investigation of online frameworks is critical for an assortment of reasons, including the way that many industrialized nations and business organizations use them to oversee associations with their clients. The advantages of online frameworks are as follows: simple to utilize, fast reaction time, consequently quicker as far as getting to data since it is on the web around the world.

According to Vasilisa Soltanaga Abbasova (2020) defined that Online Document

Management System provides the basics of the process of entering, sending, storing, receiving, and categorizing data, examining, looking, and showing with regards to carrying out an answer of record the board the underpinnings of the framework go a long way past the establishments. The upsides of the Online Document Management System are it that focuses on various clients, huge volumes of archives and different workplaces should meet stricter prerequisites. The accompanying highlights are significant while picking a report on the executive's framework for the company. One of the main variables for the outcome of a record-the-board framework is its usability. The UI is basic to guarantee that faculty are acknowledged rapidly. The framework might be generally utilized if it is gathered, arranged, and found, easy to understand, and sufficiently adaptable to adjust to how individuals as work in an association, rather than driving them to change their favored approach to working. Catch. For a report on the executive's framework to further develop business tasks, it should cover a wide range of records – paper, electronic, fax, sound and video, and numerous others – that are essential for the association's cycles and systems. Guidance and getting. The venture quality electronic report the board framework is exceptionally situated to assist in tackling the issue by aiding workers rapidly with looking through a great many records to decide the exact thing data they need. Comments permit clients to add or eliminate archive data without continually changing the first picture. Featuring, stamps, altering, and notes are among the most widely recognized comments. The security of the report the board framework ought to give the framework chairman command over who can see explanations and view changes. Capacity and document. When the archives have been placed into the record the board framework, they should be safely put away. The board report capacity frameworks should have the option to adjust to

changing innovations and the future development of the association. An all-inclusive record-the-board framework should be viable with all right now accessible capacity gadgets as well as new frameworks to guarantee long-haul maintenance and filing of archives. Appropriation. EDMs ought to assist with giving the right data to the perfect individuals. The framework permits different clients to get to similar records simultaneously and disseminates reports to approved people both inside and outside the association over an interior organization.

Work process modules can upgrade the advantages of recording the board via computerizing report steering across individuals, disposing of bottlenecks, and improving business processes. This extra usefulness is basic for enormous branch workplaces, for associations with central command and branch workplaces, and for associations that intend to extend their framework. Framework security is a flat-out need for any report on the executive's framework. A severe security framework ought to permit each approved individual to play out the essential obligations. Joining. The presentation of new programming and information bases frequently presents calculated difficulties for the association's PC support staff. Record the executive's projects ought to offer bundled mix devices to just incorporate pictures to limit the weight on IT support staff. To limit business interruption, it is critical that the record of the executive's framework consistently coordinates with other programming applications right now for specialized reasons.

Related Studies

Development and deployment of automated electronic document management system in Municipal Units

The paper analyzes the efficiency of the development of the deployment of automated electronic document management systems in municipal units. The purpose of the project was to create such document flow within a municipal unit, which ensures efficient management of the organization, scheduling, processing & control of documents and information. The priority of the project is the improvement of the electronic document management of a municipal unit, which cost as a source of operational information for managerial decisions. The functions included in the developed system include registration of outgoing and internal documents; centralized accounting and control of documents; information and reference support; and information and reference support;

The use of an automated document management system allowed municipal units to function more efficiently. The shift from paper to electronic format and vice versa is made easier by the quick capture of paper and electronic samples of documents via scanning, recognizing, and printing.

Design and Implementation of an Electronic Document Management System

The study's goal was to create and develop a DMS application that can be used by organizations to transition from a manual system to a more structured and cost-effective computer system. Three (3) major characteristics of EDMS are found, namely, management, security, and control.

In this study, system requirements for computer science institutions of the polytechnic university were analyzed, and software design and identifying available

resources were to be determined and implemented successfully. To design an effective EDMS that can be applied to an educational institution, the previous studies have been analyzed and various ideas have been combining server management including features for managing user profiles. User profiles contain information such as user identification number, email, first and last name, etc. User Id is used to authenticate access to a user's profile for reading and updating. For authentication, user information includes a user identification number, username, password, and session for authentication.

The system handles the document in two ways: hard copy document processing and new document creation. This functionality ensures data integrity and prevents data loss. This application can be further extended by adding new sections including human resources, versioning, and student registration. In addition, the hardware used for digital signature can be also used as an identity for users of the system that contained all users' information (Mahmood, A. & Okumu's, I.T. 2013).

Electronic Document Management System for Kırıkkale University

In this study, using Document Management System has become inevitable. Cloud computing, emerged in recent years, which means that serving more people by using fewer hardware resources is rapidly reaching into every aspect of our lives with the help of document management system, although a generated document was placed as only one copy in the database, dozens or even hundreds of people can access to the document, update the document, send the document, print, and download since it is shared between users.

Two main targets mentioned in Kao and Liu's (2013) work have been carried out by EDMS developed for Kırıkkale University. The accessed to the system is possible for seven days and twenty-four hours through EDMS web-based infrastructure. It is possible

to acc to the system from inside-outside of the university of ng any mobile device which has an internet connection such as a PC, Laptop, or Tablet. In this way, approval and monitoring of in-house important documents and forms be provided and business continuity is achieved anywhere in the world. Currently, there is no access to the document at the same time. In future studies, the document system can be developed to access simultaneously like Google Docs addition, the reliability of the documents can be provided by adding a digital signature (Atilla Erguzen 2015).

Chapter III

TECHNICALITY OF THE PROJECT

The proponents aim to use a web-based service that allows users to access any digital platform. The proposed Document Management System is an online document system that is intended for offices to have easy and quick access and convenience creating, searching, tracking, managing, and storing documents without using the traditional process. These are some of the technical terms that are being used in this project: Sublime, XAMPP, MySQL, Apache, PHP, HTML, and CSS. Some of the terminologies stated above are also the technologies that will be used in the development of the proposed system.

Details of the technologies to be used

This project will be accessible using mobile phones, laptops, and computers to run the system. In the development phase of this project, the following technologies will be used:

SUBLIME – is a code editor is a go-to tool for anyone looking to make more profound customizations in diving deeper into web design and development. In comparison to traditional text editors, they can greatly simplify the process.

XAMP – is a popular cross-platform web server that allows programmers to write and tests their code on a local web server.

MySQL – is a relational database management system to add, access, and process data stored in a computer database management system such as a MySQL server.

APACHE – is responsible for accepting directory (HTTP) requests from Internet users and sending them their desired information in the form of files and Web pages.

PHP –It is a server-side scripting language that is embedded into HTML and manages databases, sessions, and dynamic content.

HTML – is used for to structure a web page and its content like content could be structured within a set of paragraphs, or using images, tables, and creating a web page.

CSS – the language for describing the presentation of Web pages, including colors, layout, and fonts. It enables one to modify the presentation for various gadgets, including printers, big screens, and small screens.

How the Project Will Work

Figure 1 presents the Functional Decomposition Diagram of the proposed Document Management System in Sangguniang Bayan in Zone 1 Sogod, Southern Leyte, which is located at the intersection of Conception Street and Osmena Street. Users can be categorized into three groups: System Administrators, SB Member Users, and Public Users. The System Administrator can add and remove user accounts as well as create and modify categories, as well as upload, browse, delete, search, update, and download files. The SB Member Users it can view, search, download file ordinance, and to examine the status of an ordinance—whether it is approved, disapproved, or pending and as well as the ability to manage one's account. The role of Public Users is to view and search file ordinance and the indicated document type is that commonly accepted is PDF only.

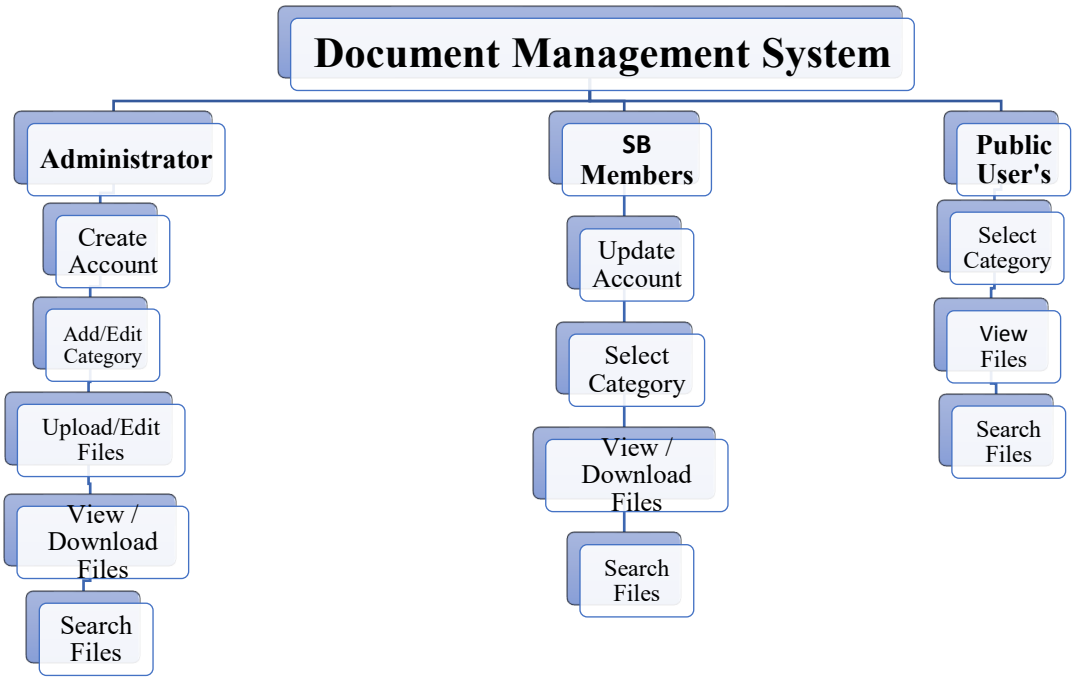


Figure 1. The Functional Decomposition Diagram

Figure 2 shows the proposed architectural layout. The proposed system will have three authorized personnel. Logging into the devices, they should be connected to the internet. In executing the system, specified main system administrator can able to use a system to upload folder / file search, download, delete, update, view, search, and manage user accounts. The ability to view, search, download, view status, and manage accounts is available to SB Member Users, while the ability to view and search ordinances is available to Public Users. Additionally, the Cloud Server is a centralized server resource that can be used on demand by many users and will host delivered a network typical to the internet. It can supply processing power, storage, and applications, as well as carry out all the operations of a conventional physical server. Due to the typical type of system, which is a web-based system, the system might not be able to function and run without the existence of a reliable internet connection.

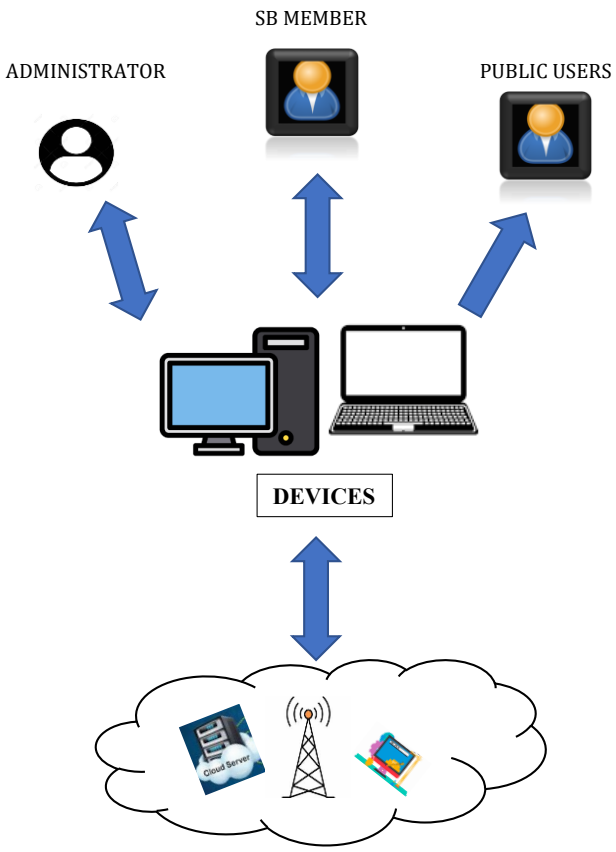


Figure 2. The Architectural Layout of the Project

Chapter IV

METHODOLOGY

This chapter covers the Requirement Analysis, Requirement Documentation, Design of the Software, Design of the System, System Processes, Development and Testing, Description of the System, Implementation Plan, and Implementation Results of the project.

Requirements Analysis

This section presents the Requirements Modelling and the Risk Assessment/Analysis of the project.

System Requirements

The system requirements and modeling for the Development of a Document Management System are presented in this section.

Input

- The users must enter valid login information.
- The Administrator must upload specific ordinance documents in accordance with their category.
- Administrators can add, update, and delete system users.

Process

- The provided login credentials will be verified by the system.
- The system makes sure that electronic copies of ordinances are available.
- It offers various ordinance documents control access through various user control access.

- The system provides tools for organizing, entering, and searching available ordinances documents.
- The Administrator is permitted to view, update, search, download, edit, delete, and read the ordinances and able to create folder and manage users.
- The SB Members are permitted to view, search, download, and able to view the status of ordinances.
- The public are permitted to view and read the ordinances.

Output

- According to its classification, the system will produce the uploaded ordinance documents.
- All Public viewers are permitted to view and search for specific ordinance.
- The web-based system must be able to show a list of ordinances based on category and status (approved, disapproved, pending).

Performance

- The system must be available every day of the week.
- Response times cannot go over 12 seconds.
- The system must be able to maximum of 30 online users at once.

Security and Control

- Only a local government unit's designated Main System Administrator may add, edit, and delete user records.
- The SB Member Users are permitted to manage their accounts.
- SB Members Users and the Main System Administrator must each have their own levels of security maintained by the system.

- The SB Secretary is the designated system administrator who has access to all system privileges.
- The SB Members can only view and download approved, disapproved, and pending ordinances.
- Public Users are permitted to view and search a specific ordinance.

Data and Process Modelling

Context Diagram

Figure 3 shows the general overview of how the Development of a Document Management System is processed, examined, or modeled. The SB Members User's and the Main System Administrator are part of a separate security level in the system. SB Members Users are only permitted to look for and read certain ordinances, whereas system administrators are permitted to view, download, search, update, search, and delete a specific ordinance.

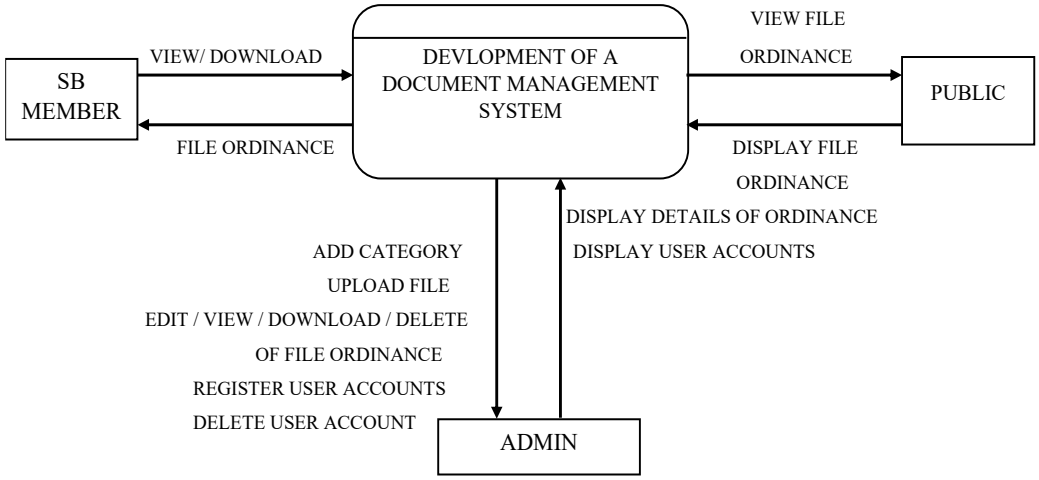
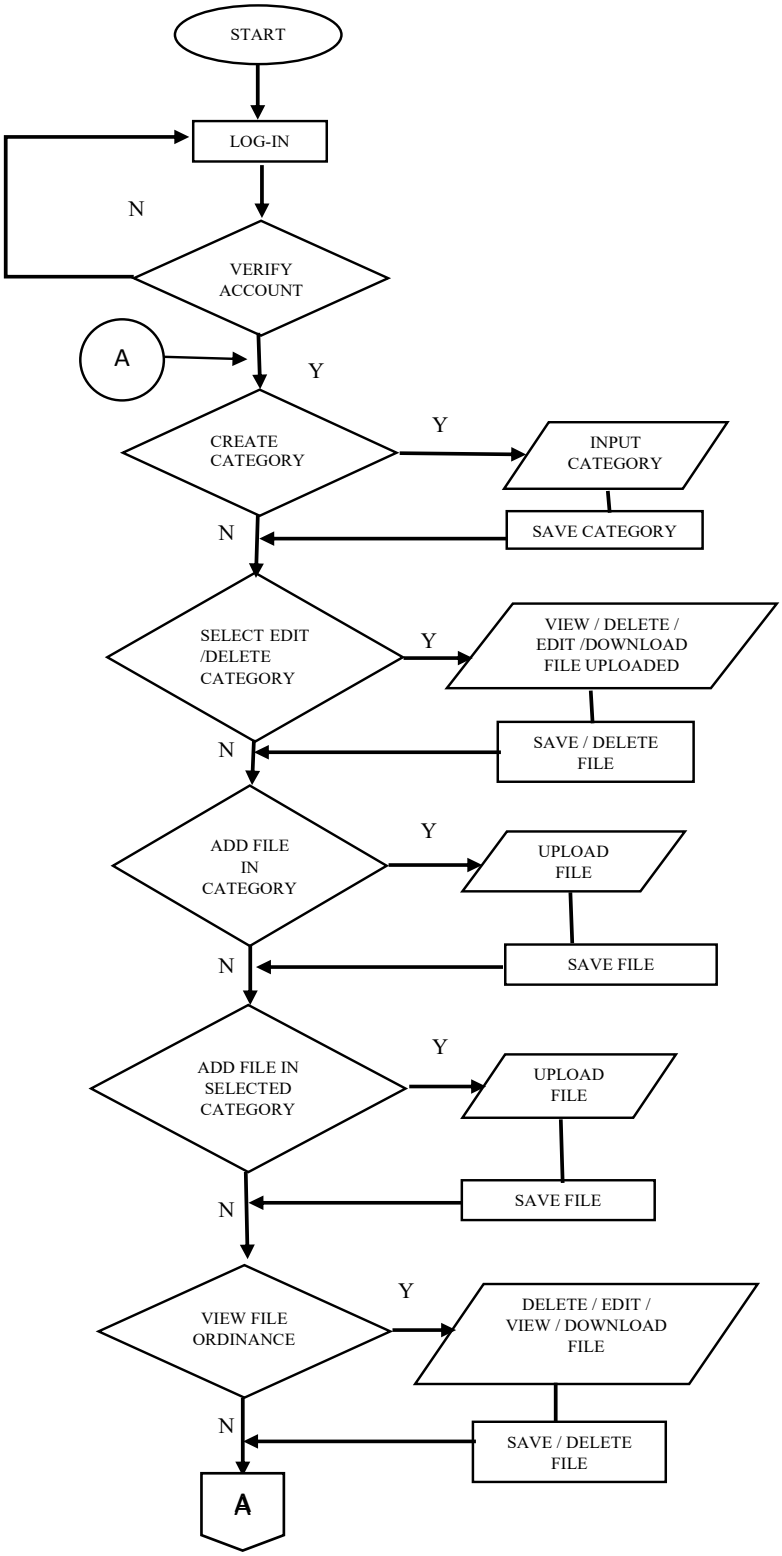


Figure 3. The Context Diagram

System Flowchart

Flowcharts are used graphically present the processes involved in the system. It is a representation that serves as a solution model to a specific issue. The system flowcharts

for each category of a system administrator, SB Member Users and Public Users are displayed in Figure 4 and 5 respectively.



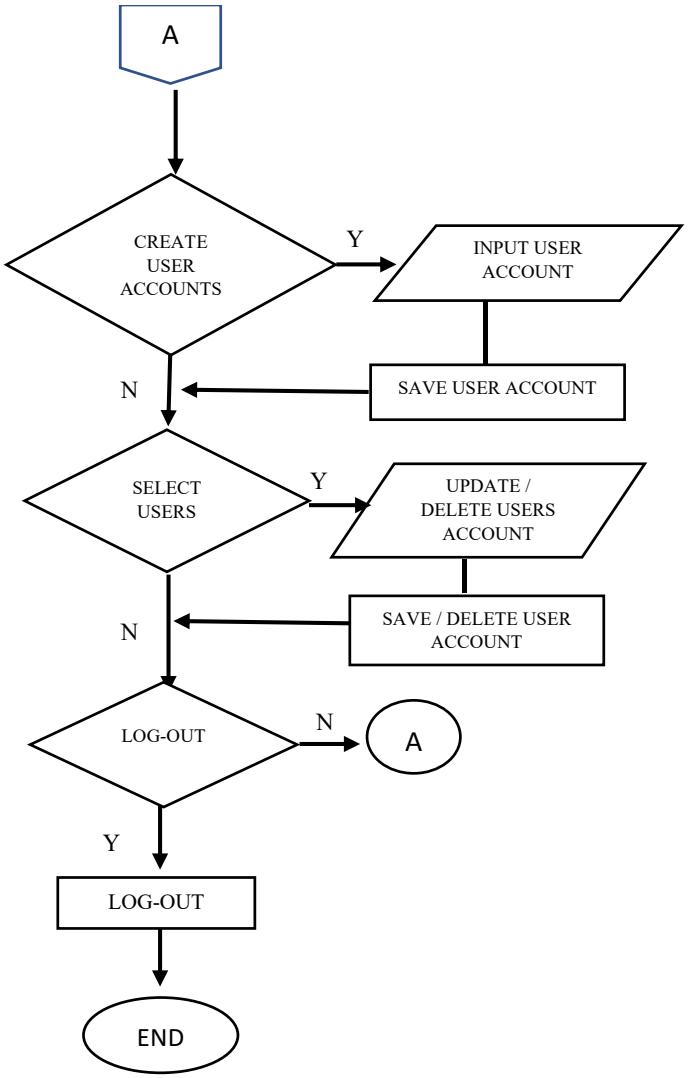


Figure 4. System Flowchart – System Administrator

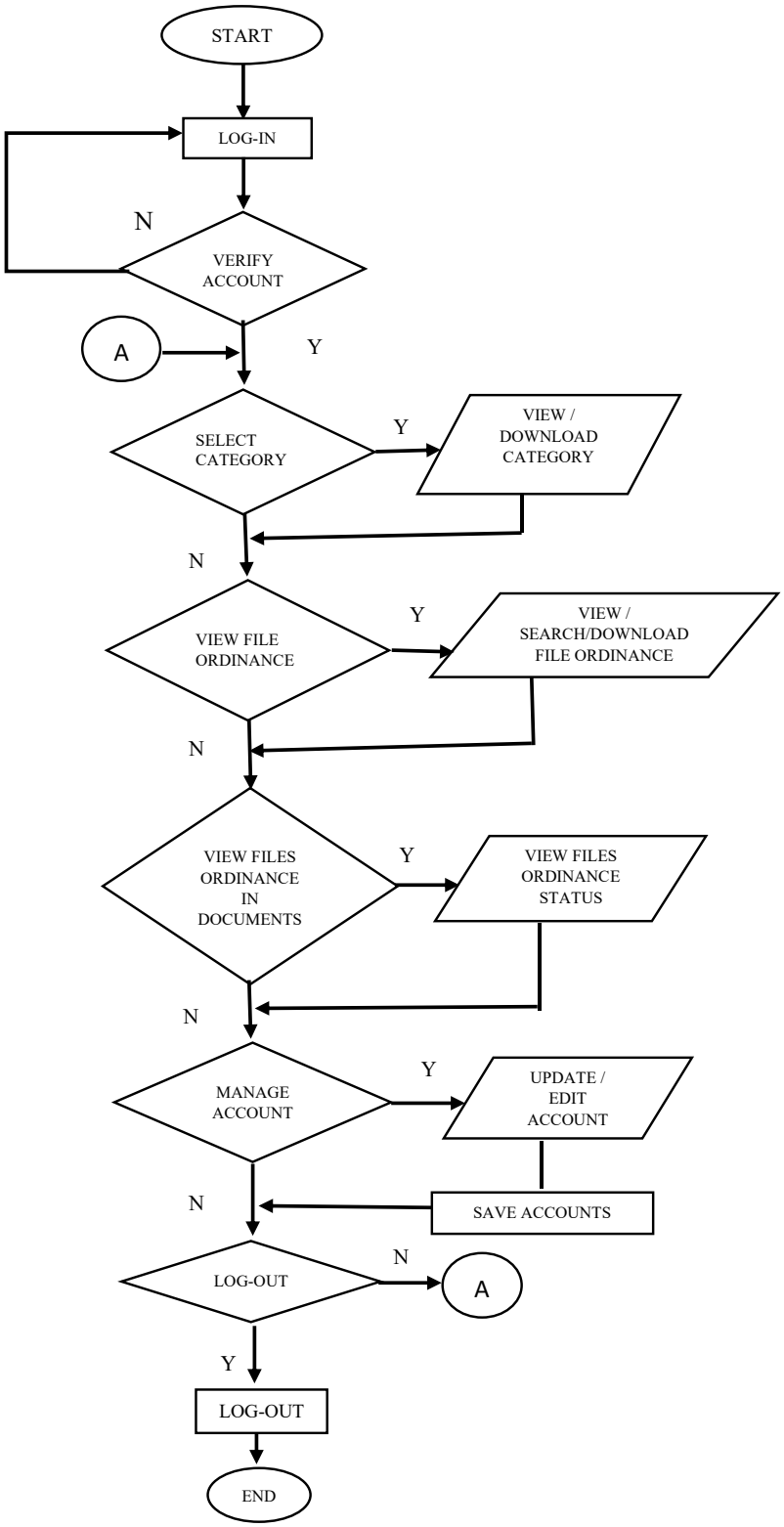


Figure 5. System Flowchart- SB Member User

Object Modelling

Figures 6, 7, and 8 are the system's recommended use case models. These are representations on how the users (SB members and Public Users), and System Administrator interact with the system.

Use Case

Figure 6 presents the different interactions between the administrator and the system. As shown, the administrator can login, create/edit category, upload file, view, search, download, delete, update, and manage user account.

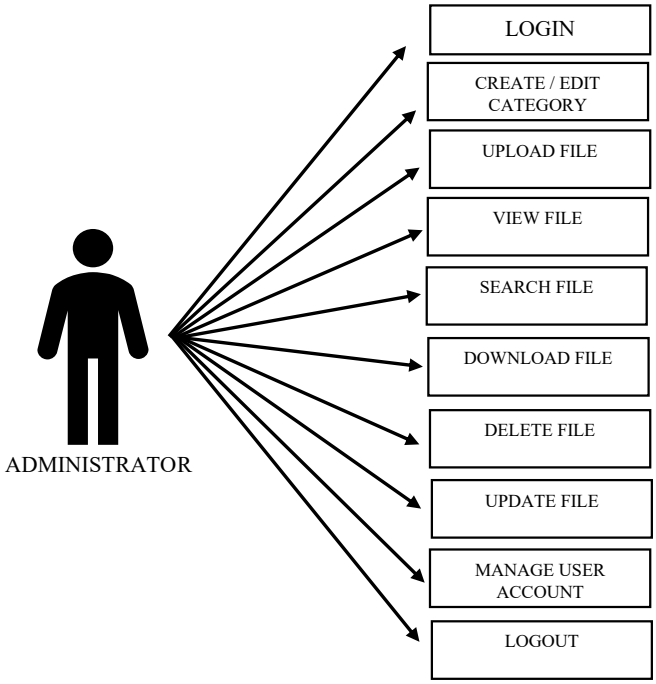


Figure 6. The System Use Case Diagram for System Administrator

Figure 7 is the use case diagram for the SB Members. SM members can login their accounts, view, search and download ordinances, view status of ordinances and manage one's account.

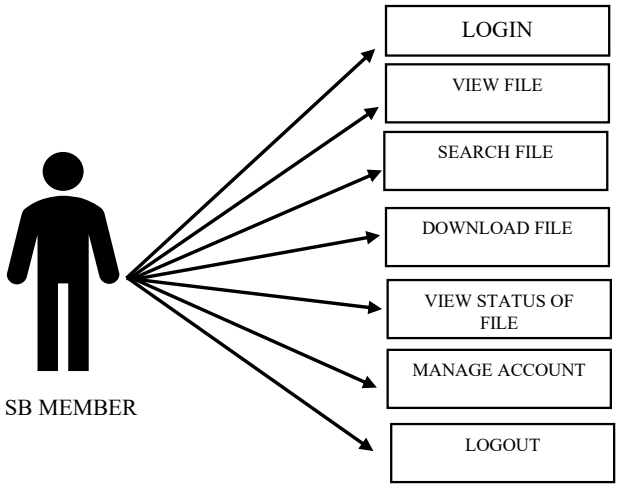


Figure 7. The System Use Case Diagram for SB Member User

The figure in Figure 8 depicts the Public Users, who may view and search file ordinances as displayed.

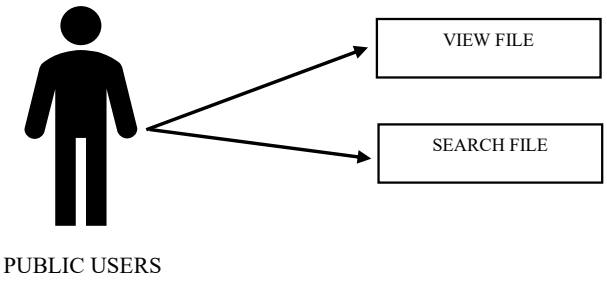


Figure 8. The System Use Case Diagram for Public User

Risk Assessment/Analysis

Table 1 lists all potential dangers and problems that could prevent the implementation of a Development of a Document Management System. Additionally, the methods to eliminate or reduce the likelihood of the identified hazards are also provided.

Table 1. Risk assessment and analysis

Risk Description	**Effect**	**Risk Grading (Low, Medium, High)**	**Recovery Measure**
Data Privacy	The potential data leak of a user's accounts.	High	Increase mechanism to secure the system
Malware Infection	Malware contamination failure of the system	High	Install Antivirus Programs
Server Failure	System Inaccessibility	High	Fail safe measure
No Internet Connection	No Access to the Internet Unavailable Website	Medium	Sign Up for a Different Internet Service Provider.

Design of the Software

The data structures and algorithms utilized in the software are discussed in this part along with their design and implementation. It displays the database's complete data model, including the database schema in Figure 9 and the data dictionary in Tables 2, 3, and 4.

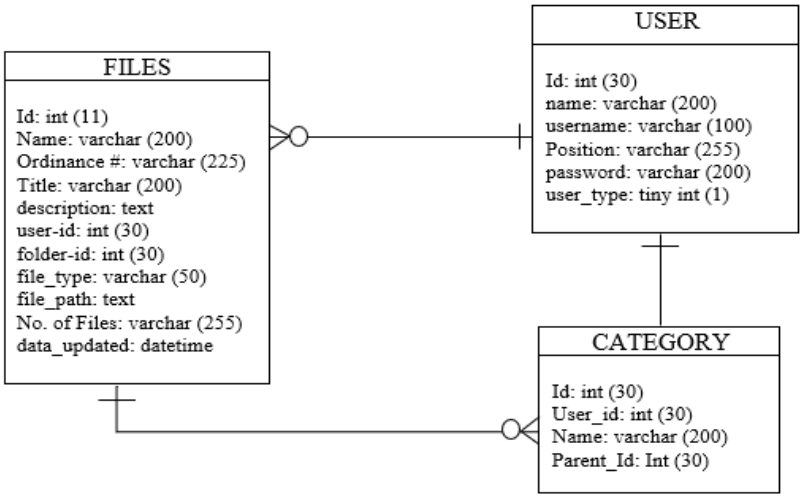


Figure 9. Database Schema

Table 2. Data Dictionary- tbl_Files

Column	Type	Comment
Id	int (11) *Auto Increment*	Unique ID of the current table
Name	varchar (255)	Full name of the User
Ordinance _#	varchar (255)	Full name of the Person
Title	varchar (255)	Title of the Ordinance
Description	Text	Description of the Ordinance
User_Id	int	Unique ID of the User
File_Path	text	Location of a Folder in a Website Folder Structure
Date_Updated	datetime	Date of File Uploaded
Folder_Id	varchar (255)	Unique ID of the Folder
No. of Files	varchar (255)	Number of Files Uploaded
Date_Updated	datetime	Date of File Uploaded

Table 3. Data Dictionary- tbl_Category

Column	Type	Comment
Id	int (11) *Auto Increment*	Unique ID of the current table
Name	Varchar (255)	Name of the Category
User_Id	int	Unique ID of the User
Parent_Id	int	Identification type of User according to its security level which is user and system administrator.

Table 4. Data Dictionary- tbl_User

Column	Type	Comment
Id	int (11) *Auto Increment*	Unique ID of the current table
Name	varchar (255)	Full name of the User
Username	Varchar (255)	Username of the User
Position	Varchar (255)	Position of the User
Password	Varchar (200)	Password of the User
Type	Tinyint (1)	User Type of the User

Design of the System

The created system is an online web-based system that utilizes many web browsers and web platforms. The screenshots from the created system are shown in Figures 10 to 18.

Interface Design

Login. Figure 10 provides the form used to enter login credentials. This authenticates the users of the system.

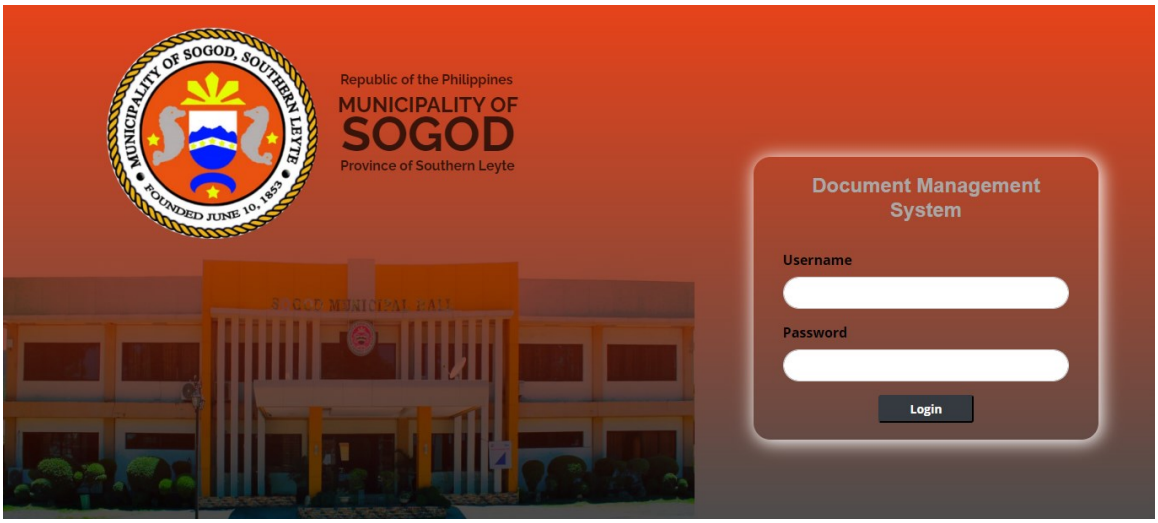


Figure 10. Login Form

Dashboard View. Figure 11 display the interface dashboard of the system.

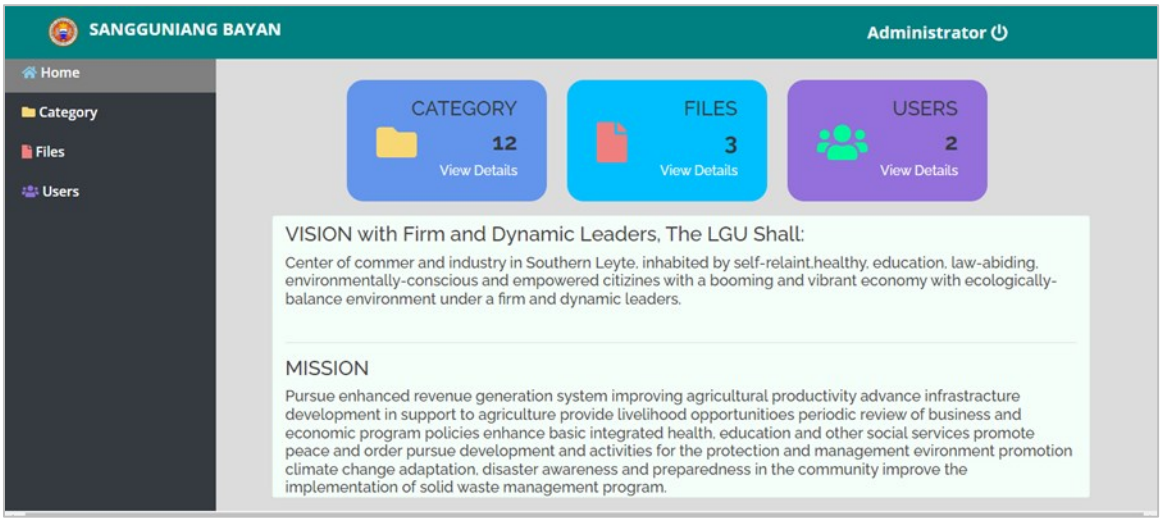


Figure 11. Dashboard View

Display All Categories. Figure 12 it displays all Categories of ordinances.

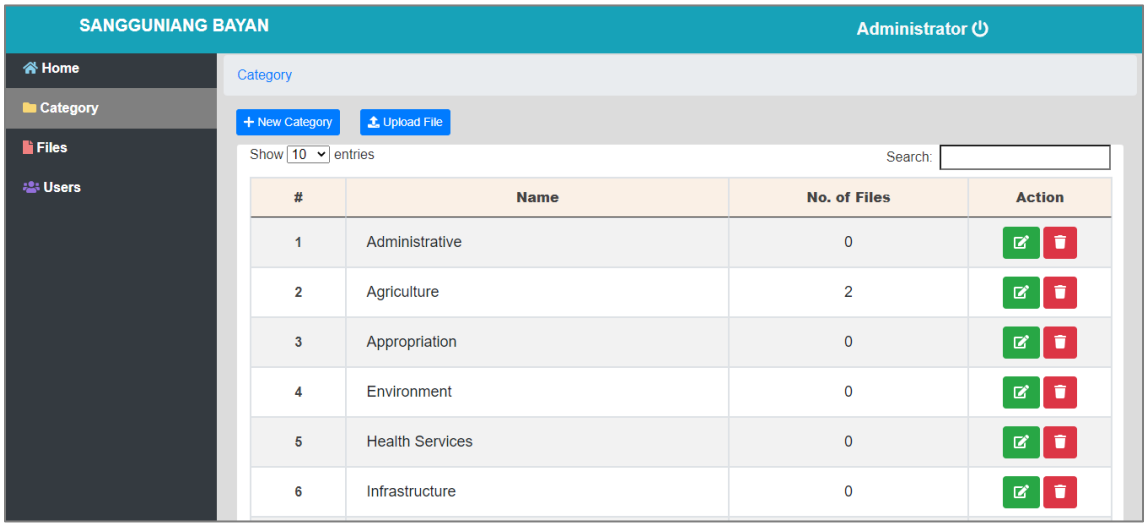


Figure 12. Display All Categories

Display Each Category. Figure 13 it represents to display each of the category that created by administrator and enable to upload a file in selected category.

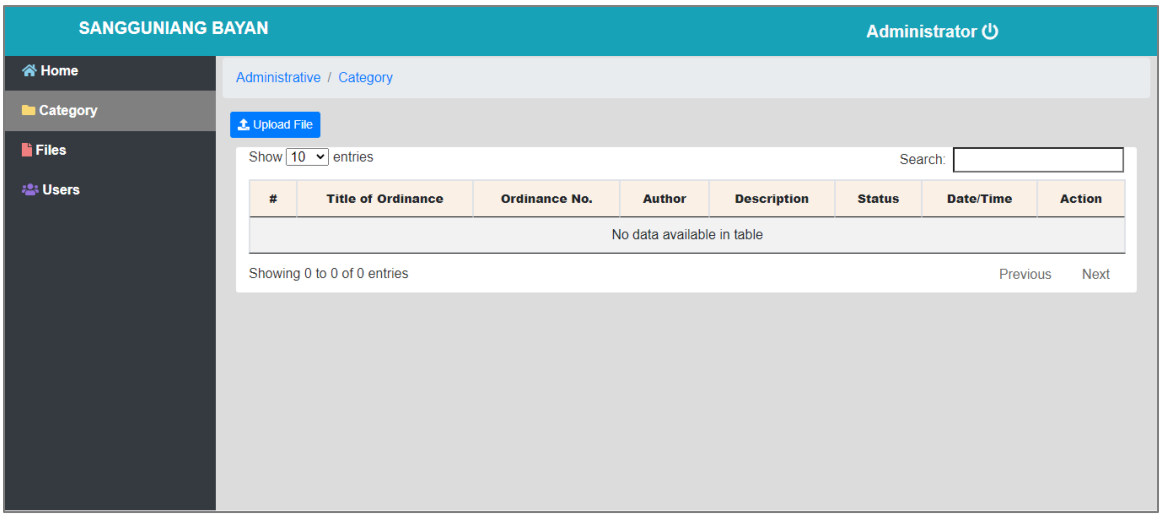


Figure 13. Display Each Category

Create New Category. Figure 14 it shows to allow system administrator to create a new category.

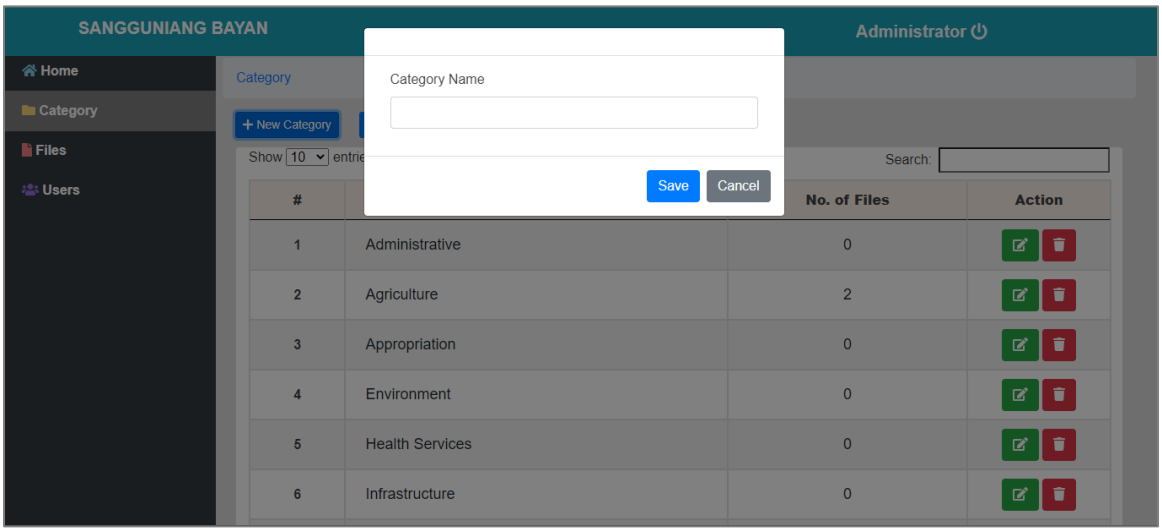


Figure 14. Create New Category

Upload New File. Figure 15 it shows that system administrator and SB Members allows to upload a new file of ordinance.

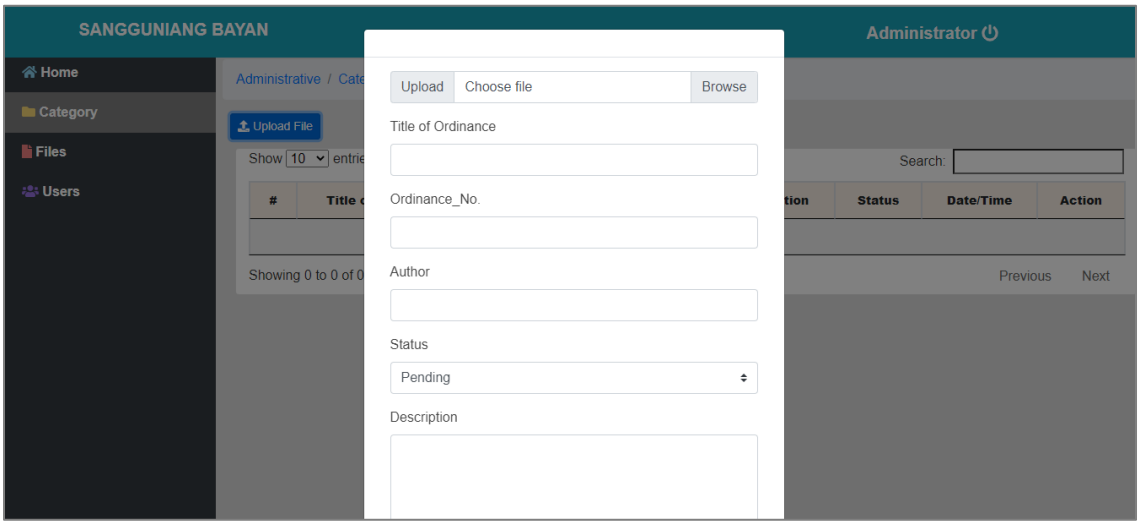


Figure 15. Browse to Upload a New File in Selected Category

View All Files. Figure 16 it displays all the files that has been uploaded by the system.

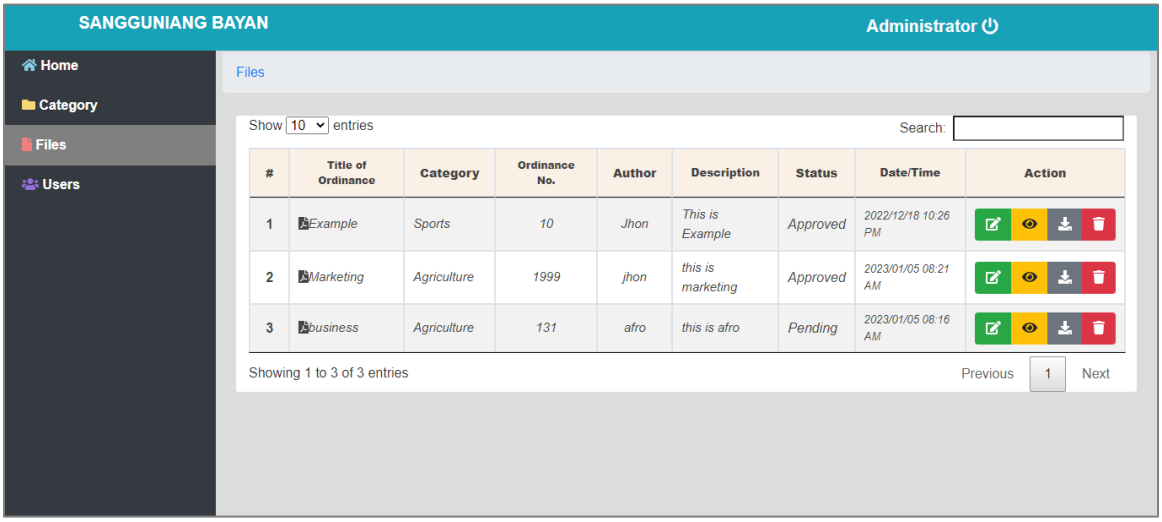


Figure 16. View All Files

Display User Account. Figure 17 it displays all user account that who have access by the system.

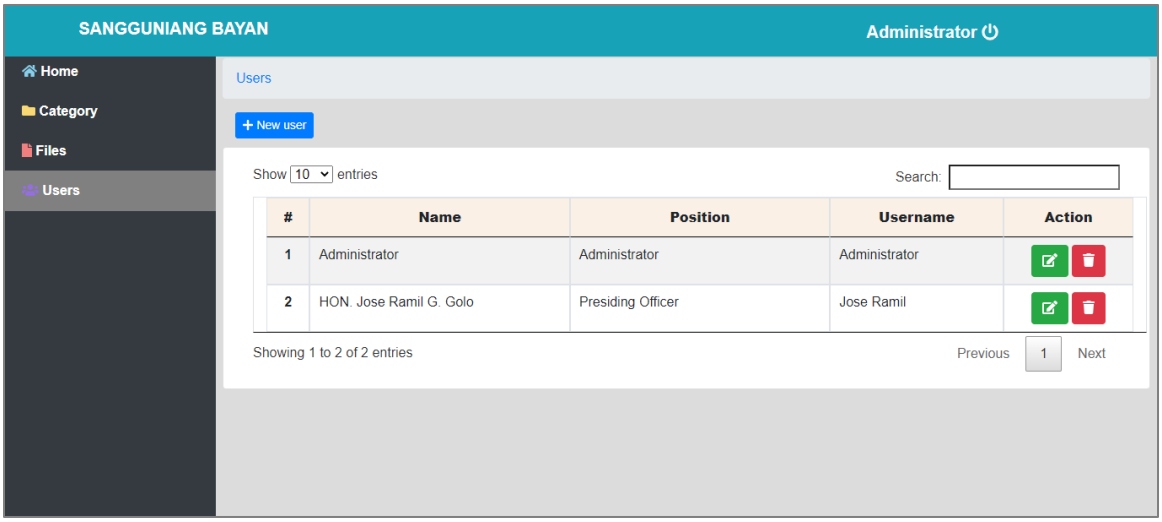


Figure 17. Display User Account

Create New User Account. Figure 18 it allows system administrator to create new user accounts to access the system.

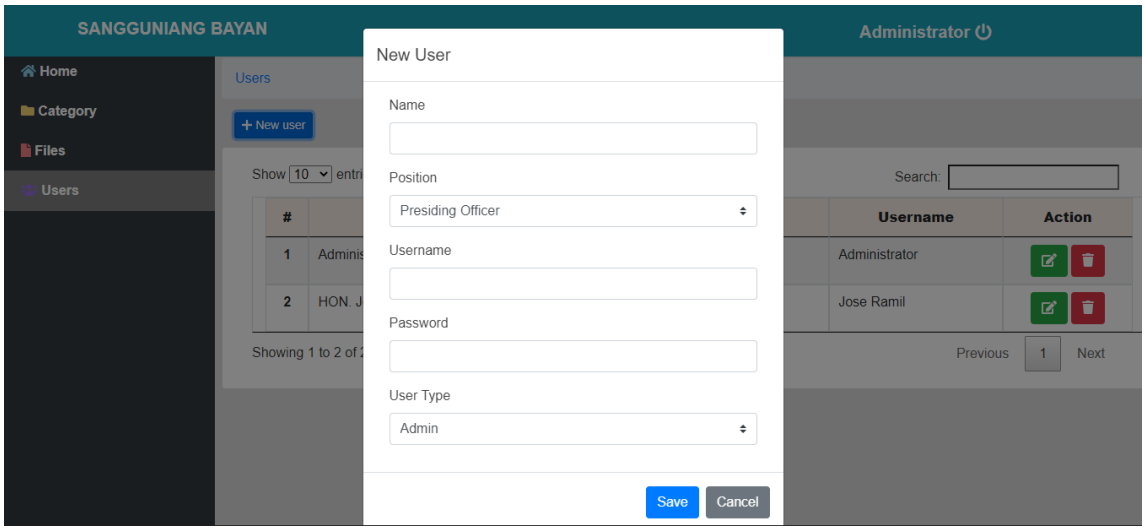


Figure 18. Create New User Account

System Process

The IPO Model represents the Development of a Document Management System in three stages which is input, process, and output. This will serve the systems for input representing the flow of information and materials coming into the process from the outside. The processing step entails all the activities necessary to change the inputs of the system. The data and materials that come out of the transformation process are the outputs of the system.

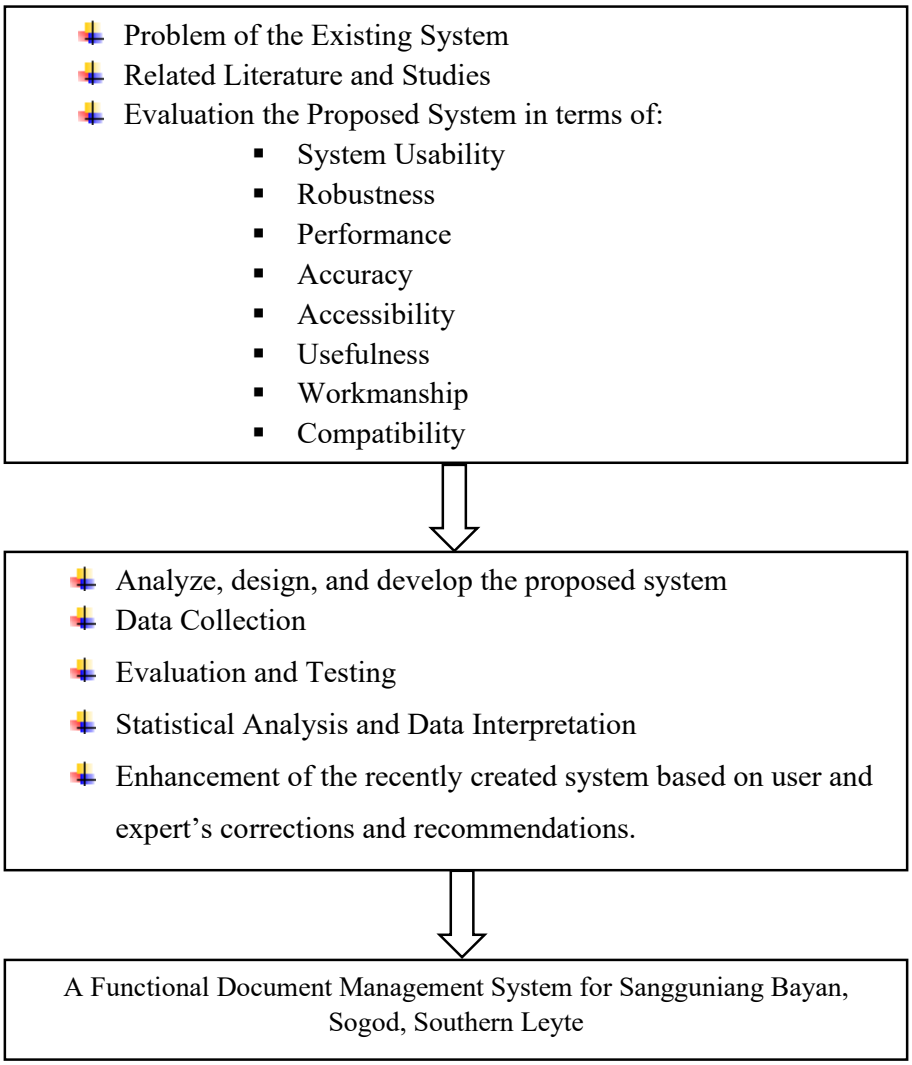


Figure 19. The IPO System Process

Development and Testing

Software Development

To access the success of the system. The proponents have made it undergone steps to accurately assess how the system should be observed and/or developed. Depicted below is the System Development Life Cycle, was to assess, gather and analyze requirements.

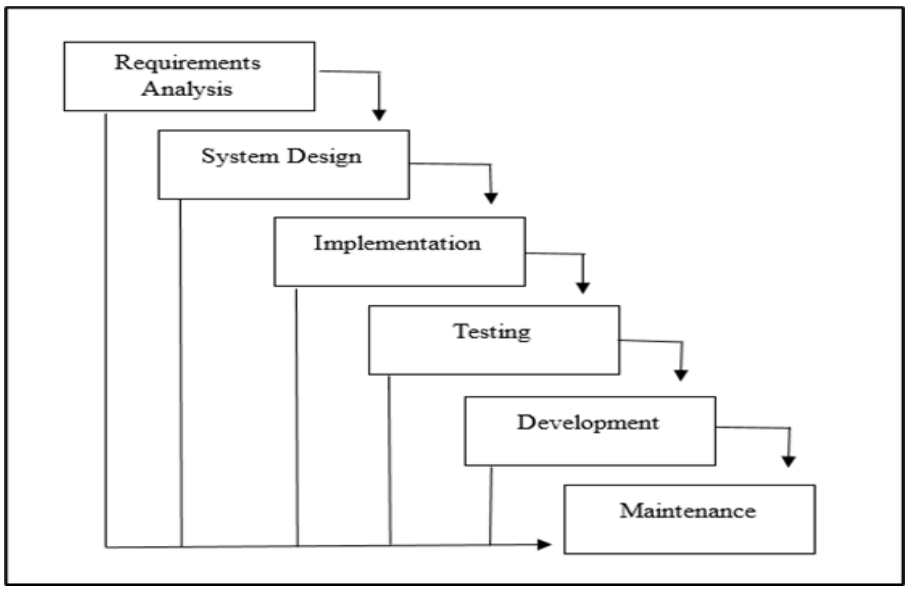


Figure 20. System Life Cycle Specification

The first step to achieve the implementation of the Water Fall manner of the System Development Life Cycle, was to assess, gather and analyze the requirements. System design includes the creation of prototype and lay-outing which covers the arrangement of buttons, panels, and some other components of the system. In the implementation, the requirements and system design were applied to the implementation phase. After the implementation was the testing of the system, wherein the weaknesses and bugs were addressed and catered accordingly. The next step was to deploy the system based on the nurtured nature of the system. And for the system to accomplished success, it should maintain possible bugs, errors, and failure that comes after were and should be addressed accordingly.

Hardware Specification

Table 5 presents the minimum hardware specifications in developing the Development of a Document Management System.

Table 5. Hardware Specification

Hardware	Description/Specification
Computer / Laptop	It can take in data (input), process it, and then generate outputs. The Processor Intel(R) Core (TM) i3-10110U CPU @ 2.10GHz 2.59 GHz with Hard Drive: 1 TB 54000 rpm SATA HDD and the RAM must have at least 4.00 GB DDR4-2666 MHz RAM (1 x 4 GB) installed.
Mobile Phone	It is a handheld device that will allows people for wireless communications and connections. The phone must be capable of connecting to the internet. Android
Internet Communication with minimum speed = 384kbps	It is a global communication system that is responsible for vast of data transfer and process facilitation in accessing of data resources that communicated over internet.

Software Specification

Shown in Table 6 is the software specifications for the development of Development of a Document Management System.

Table 6. Software Specification

Software	Description/Specification
XAMPP	It is a popular cross-platform web server that allows programmers to write and tests their code on a local web server.
Visual Studio Code	It is a code editor redefined and optimized for building and debugging modern web and cloud applications.
Browser	A browser is a software that allows you to view and interact with all the information on the World Wide Web.

Testing

To make sure the Document Management System works as intended, unit testing was done. To verify that the web-based system can function with many browsers, including Google Chrome, compatibility testing was also conducted in a machine that runs Windows.

Additionally, system testing was done using target customers as the evaluators. The project was also appraised by the panel evaluation committee members. The developed system was improved with the help of testing feedback. The evaluation tool, which was developed from ISO 25010, was used to rate the system's functionality, effectiveness, usability, maintenance, reliability, portability, and other factors.

Description of the System

For all different sorts of users, the designed system produces a user-friendly design. The system's front end makes used of PHP. The created system uses MySQL as its database engine and is data-driven and web-responsive.

Features of the Development of a Document Management System:

- It can manage digital ordinances.
- It grants users to access the digital copies of ordinances.
- It allows creation of user accounts to access the system.
- It enables for all user to view the quantity of file ordinance have been uploaded for each category.
- It enables all users in the general public to browse and search a certain ordinance.
- The system administrator can create folders or ordinance category, manage users, and examine, update, search, download, edit, and read the ordinances.
- The SB Members can view, search for, download of files, and view the status of ordinances.
- It is a user-friendly document management system interface that will allow a system administrator to easily upload, update, delete, view, search, and download. Additionally, it will allow to create folder and add / removed user to access the system.

Implementation Plan

Figure 21 presents the implementation plan of the project. This det from the planning phase to and evaluation of the project.

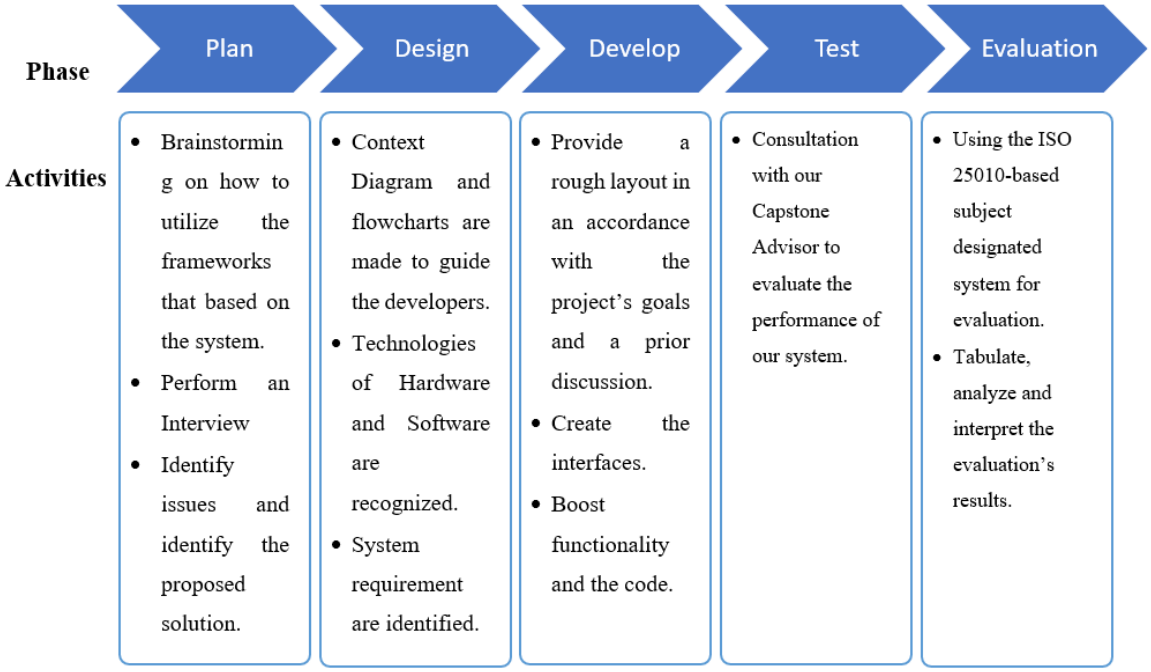


Figure 21. Implementation Plan

Implementation Result

Table 7 is the result of the evaluation using the ISO 25010. Frequency, mean, and modal interpretation are used in the treatment of data using the corresponding Likert Scale provided below.

Functionality Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Fully Functional
3.21-4.20	Mostly Functional
2.61-3.20	Functional
1.81-2.60	Slightly Functional
1.0-1.8	Not Functional

Efficiency Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Efficient
3.21-4.20	Mostly Efficient
2.61-3.20	Efficient
1.81-2.60	Almost Efficient
1.0-1.8	Not Efficient

Usability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Usable
3.21-4.20	Mostly Usable
2.61-3.20	Usable
1.81-2.60	Almost Usable
1.0-1.8	Not Usable

Maintainability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

Reliability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Reliable
3.21-4.20	Mostly Reliable
2.61-3.20	Reliable
1.81-2.60	Almost Reliable
1.0-1.8	Not Reliable

Portability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

Security Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Secure
3.21-4.20	Mostly Secure
2.61-3.20	Secure
1.81-2.60	Almost Secure
1.0-1.8	Not Secure

Compatibility Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Compatible
3.21-4.20	Mostly Compatible
2.61-3.20	Compatible
1.81-2.60	Almost Compatible
1.0-1.8	Not Compatible

Table 7. User Evaluation of Development of a Document Management System

Criteria	5	4	3	2	1	Mean	Interpretation
Functionality						**4.25**	**Fully Functional**
The system performs the tasks required.	2	4	0	0	0	4.33	Fully Functional
The result is as expected.	2	4	0	0	0	4.33	Fully Functional
The system interacts with another system.	2	2	2	0	0	4	Mostly Functional

The system prevents unauthorized access.	2	4	0	0	0	4.33	Fully Functional
Reliability						**4.08**	**Mostly Reliable**
Most of the faults in the system have been eliminated over time.	1	5	0	0	0	4.16	Very Reliable
The system is capable of handling errors.	1	5	0	0	0	4.16	Mostly Reliable
The system notifies the user about wrong data entry.	1	4	1	0	0	4.16	Mostly Reliable
The software resumes working and restores lost data after a failure.	0	6	0	0	0	4.00	Mostly Reliable
Usability						**4.63**	**Very Usable**
The user comprehends how to use the system easily.	5	1	0	0	0	4.83	Very Usable
The user learns to use the system easily.	4	2	0	0	0	4.67	Mostly Usable
The user utilizes the system without much effort.	3	3	0	0	0	4.5	Mostly Usable
The system's interface looks good.	3	3	0	0	0	4.5	Mostly Usable
Efficiency						**4.44**	**Very Efficient**
The system responds quickly to the user.	3	3	0	0	0	4.5	Mostly Efficient
The system's execution time is appropriate.	3	3	0	0	0	4.5	Mostly Efficient
The software utilizes resources efficiently.	2	4	0	0	0	4.33	Very Efficient
Maintainability						**4.06**	**Mostly Agree**
The system faults can be easily diagnosed.	2	2	2	0	0	4.17	Mostly Agree
The system continues functioning when changes are made.	1	3	2	0	0	3.83	Mostly Agree

The software can be tested easily.	3	1	2	0	0	4.17	Mostly Agree
Portability						**4.06**	**Mostly Agree**
The system can be moved to other environments.	1	3	2	0	0	3.83	Mostly Agree
The software can be installed easily. *(For administrator)*	2	3	1	0	0	4.17	Mostly Agree
The software can replace easily other software. *(For administrator)*	2	3	1	0	0	4.17	Mostly Agree
Security						**3.58**	**Mostly Secure**
The software ensures confidentiality of data	1	1	3	0	0	3.00	Secure
The software prevents unauthorized access and modification to computer programs and/or data	2	1	2	0	0	3.33	Mostly Secure
The software requires authentication of users	4	0	2	0	0	4.33	Very Secure
A system log is maintained.	2	0	4	0	0	3.67	Mostly Secure
Compatibility						**4.00**	**Mostly Compatible**
The software performs its required functions efficiently while sharing a common environment and resources without negatively impacting any other product/s.	3	2	1	0	0	4.33	Very Compatible
The software allows two or more systems, products, or components to exchange and use the information.	1	2	3	0	0	3.67	Mostly Compatible
GRAND MEAN						**4.14**	

The results shown in Table 7 demonstrate that the developed Document Management System is fully functional as a result of the mean of 4.25 for all functionality-

related criteria. This implies that the system operates in accordance with its intended and anticipated functionality. Based on the reliability mean of 4.08, the result denotes that the system is Mostly Reliable, because it operates correctly within the allotted time frame. The system garnered a mean of 4.63 for usability, a quality feature that assesses how the user interacts with and uses the environment's interface, suggesting that it is Very Usable. Due to the system's total efficiency mean of 4.44, the result shows that it is Very Efficient. It responds quickly to user input and completes tasks on schedule. According to the maintainability criteria, which has a mean of 4.06 and is classified as Mostly Agree, the system operates with demonstrable ease and speed and it continues to operate even when adjustments are made. The system performs well in a range of circumstances, as indicated by its mean portability score across all parameters of 4.06, which suggests that it is Mostly Agree. With a mean score of 3.58 across all criteria, it is Mostly Secure in terms of security, suggesting that the system ensures the confidentiality of user data and protects against unauthorized access of system. Finally, in compatibility, the system effectively carries out its required functions while sharing a shared environment, and to allows two or more system components to communicate and use of information. Its average across all sub-criteria is 4.00, indicating that it is mostly compatible. The overall average mean of all eight characteristics is 4.14, claiming that the system has fulfilled the standard of eight requirements for features and has been advised for adoption and utilized in conformity with the procedure of managing documents in an organization.

Chapter V

RECOMMENDATIONS

Based on the results of the system evaluation, the proponents recommend the adoption and implementation of the Document Management System at the Sangguniang Bayan ng Sogod, Southern Leyte. Furthermore, other suggestions are made to further enhance the system to wit:

1. provide an ability to send an email notification that allows users to be informed when new documents are created or modified by the system;
2. share file ordinances via email depending on the security level of the user who can edit or view the file ordinance;
3. provide a detailed edit history for keep tracking of changes of file ordinances in maintaining version control and keep most up-to-date version of a file ordinance status; and
4. enable the system administrator to create an audit trail that enables to comprehend to view who have accessed from which specific file ordinance and to distinguish the specific time and date occur.

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Appendix A

Relevant Source Code

Database Connection

```
$conn= new mysqli('localhost','root','','fms_db') or die ("Could not connect to mysql". 
mysqli_error($con));
if($conn->connect_error) {
   die ("Connection Failed". $conn->connect_error);
}
```

Add

```
<?php
include('db_connect.php');
if(isset($_GET['id'])) {
$qry = $conn->query ("SELECT * FROM folders where id= ". $_GET['id']);
        if($qry->num_rows > 0) {
                foreach($qry->fetch_array () as $k => $v) {
                        $meta[$k] = $v;
                }
        }
}
?>
<div class="container-fluid">
        <form action="" id="manage-folder">
                <input type="hidden" name="id" value="<?php echo isset($_GET['id'])? 
$_GET['id']:''?>">
                <input type="hidden" name="parent_id" value="<?php echo 
isset($_GET['fid'])? $_GET['fid']:''?>">
                <div class="form-group">
                        <label for="name" class="control-label">Category Name</label>
                        <input type="text" name="name" id="name" value="<?php echo 
isset($meta['name'])? $meta['name']:''?>" class="form-control">
                </div>
                <div class="form-group" id="msg"></div>
        </form>
</div>
```

Save

```
$(document). ready (function () {
        $('#manage-folder'). submit(function(e) {
            e. preventDefault ()
            start_load ();
        $('#msg').html ('')
        $. ajax ({
            url:'ajax.php?action=save_folder',
            method:'POST',
            data: $(this). serialize (),
            success: function(resp) {
                if (typeof resp! = undefined) {
                    resp = JSON.parse(resp);
                    if (resp. status == 1) {
                        alert_toast ("New Category Successfully Added.",'success')
                        setTimeout (function () {
                            location. reload ()
                        },1500)
                    } else {
                        $('#msg').html ('<div class="alert alert-danger">'+resp.msg+'</div>')
                        end_load ()
                    }
                }
            }
        })
        })
    })
```

Edit/ Update

```
$(‘. edit_files'). click (function () {
        uni_modal ('Edit Category','manage_Name.php?id='+$(this). attr('data-id'))
   })
```

Delete

```
function delete_folder($id){
                start_load();
                $.ajax({
                        url:'ajax.php?action=delete_folder',
                        method:'POST',
                        data:{id:$id},
                        success:function(resp){
                                if(resp == 1){
                                        alert_toast("Category successfully
deleted.",'success')
                                                setTimeout(function(){
                                                        location.reload()
                                                },1500)
                                }
                        }
                })
        }
```

APPENDIX B

Evaluation Instrument and Responses

System Evaluation (ISO 25010)

Instructions: Please evaluate the "Development of a Document Management System" using the scale shown below. Check (/) the appropriate score. Thank You.

Helen Obus
Project Leader

Czarina Ancella G. Gabi PhD
Adviser

Functionality Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Fully Functional
3.21-4.20	Mostly Functional
2.61-3.20	Functional
1.81-2.60	Slightly Functional
1.0-1.8	Not Functional

Efficiency Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Efficient
3.21-4.20	Mostly Efficient
2.61-3.20	Efficient
1.81-2.60	Almost Efficient
1.0-1.8	Not Efficient

Usability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Usable
3.21-4.20	Mostly Usable
2.61-3.20	Usable
1.81-2.60	Almost Usable
1.0-1.8	Not Usable

Maintainability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

Reliability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Reliable
3.21-4.20	Mostly Reliable
2.61-3.20	Reliable
1.81-2.60	Almost Reliable
1.0-1.8	Not Reliable

Portability Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Strongly Agree
3.21-4.20	Mostly Agree
2.61-3.20	Agree
1.81-2.60	Slightly Agree
1.0-1.8	Strongly Agree

Security Indicator

Limits of Scale	Qualitative Description
4.21-5.00	Very Secure
3.21-4.20	Mostly Secure
2.61-3.20	Secure
1.81-2.60	Almost Secure
1.0-1.8	Not Secure

Compatibility Indicator

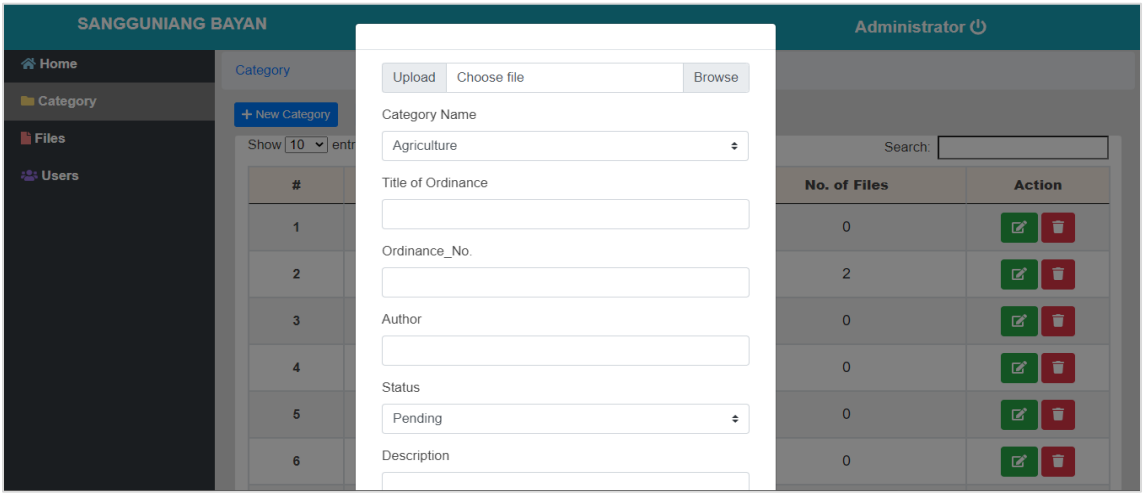
Limits of Scale	Qualitative Description
4.21-5.00	Very Compatible
3.21-4.20	Mostly Compatible
2.61-3.20	Compatible
1.81-2.60	Almost Compatible
1.0-1.8	Not Compatible

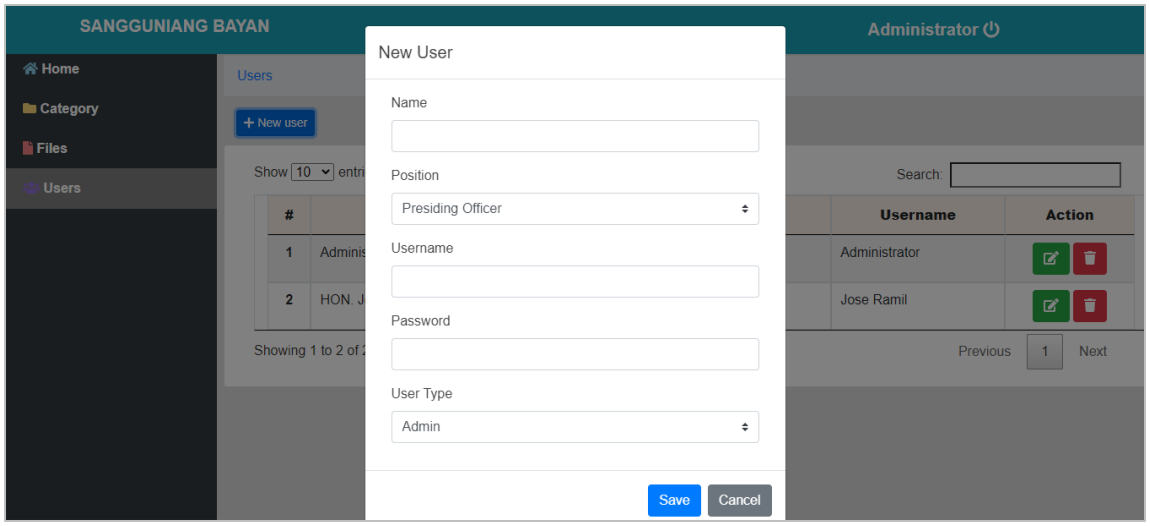
Criteria		Score				
Characteristic	*Sub Characteristic*	***1***	***2***	***3***	***4***	***5***
1. Functionality	The system performs the tasks required.					
	The result is as expected.					
	The system interacts with another system.					
	The system prevents unauthorized access.					
2. Reliability	Most of the faults in the system have been eliminated over time.					
	The system is capable of handling errors.					
	The system notifies the user about wrong data entry.					
	The software resumes working and restores lost data after a failure.					
3. Usability	The user comprehends how to use the system easily.					
	The user learns to use the system easily.					
	The user utilizes the system without much effort.					
	The system's interface looks good.					
4. Efficiency	The system responds quickly to the user.					
	The system's execution time is appropriate.					
	The software utilizes resources efficiently.					
5. Maintainability	The system faults can be easily diagnosed.					
	The system continues functioning when changes are made.					
	The software can be tested easily.					
6. Portability	The system can be moved to other environments.					
	The software can be installed easily. *(For administrator)*					
	The software can replace easily other software. *(For administrator)*					
7. Security	The software ensures confidentiality of data					
	The software prevents unauthorized access and modification to computer programs and/or data					

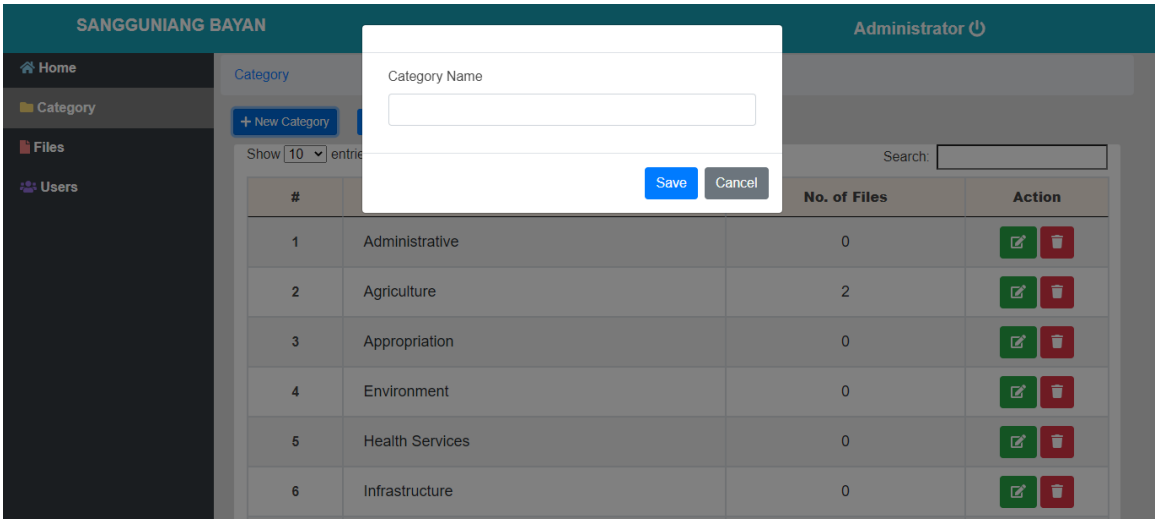
Criteria		Score				
Characteristic	*Sub Characteristic*	***1***	***2***	***3***	***4***	***5***
	The software requires authentication of users					
	A system log is maintained.					
8. Compatibility	The software performs its required functions efficiently while sharing a common environment and resources without negatively impacting any other product/s.					
	The software allows two or more systems, products, or components to exchange and use the information.					

Appendix C

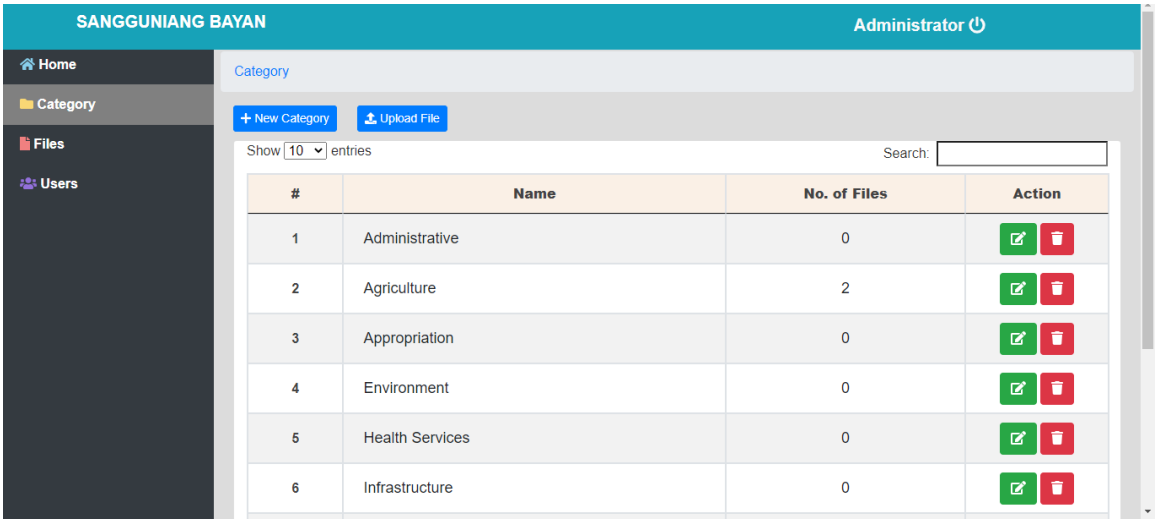
Sample Input

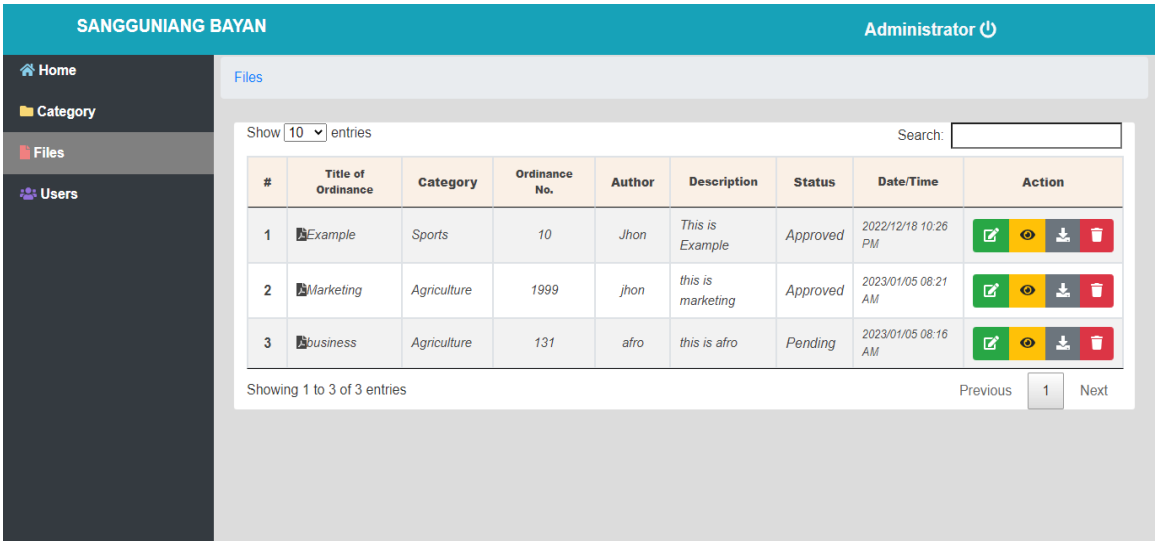


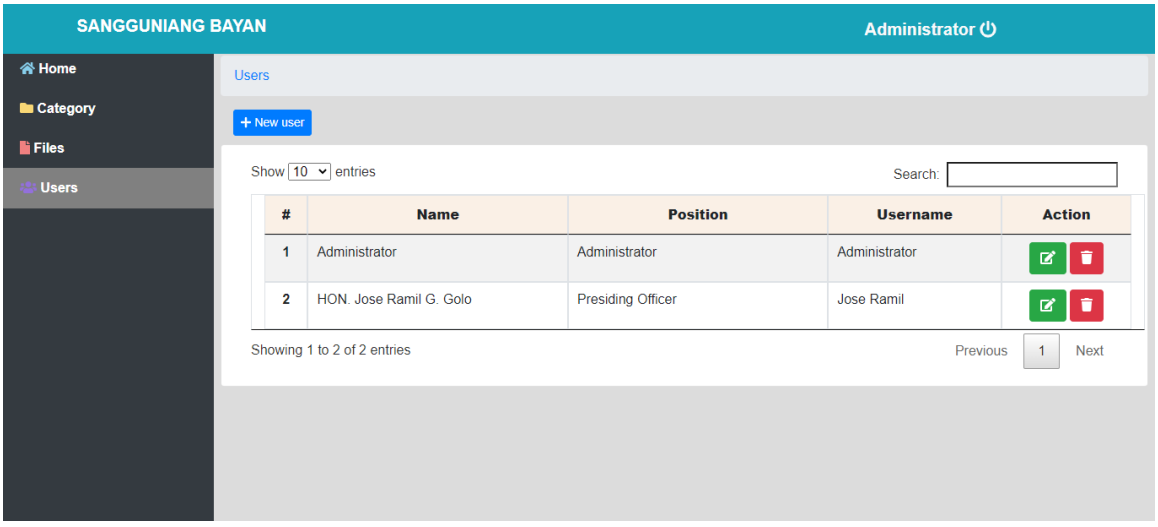




Sample Output

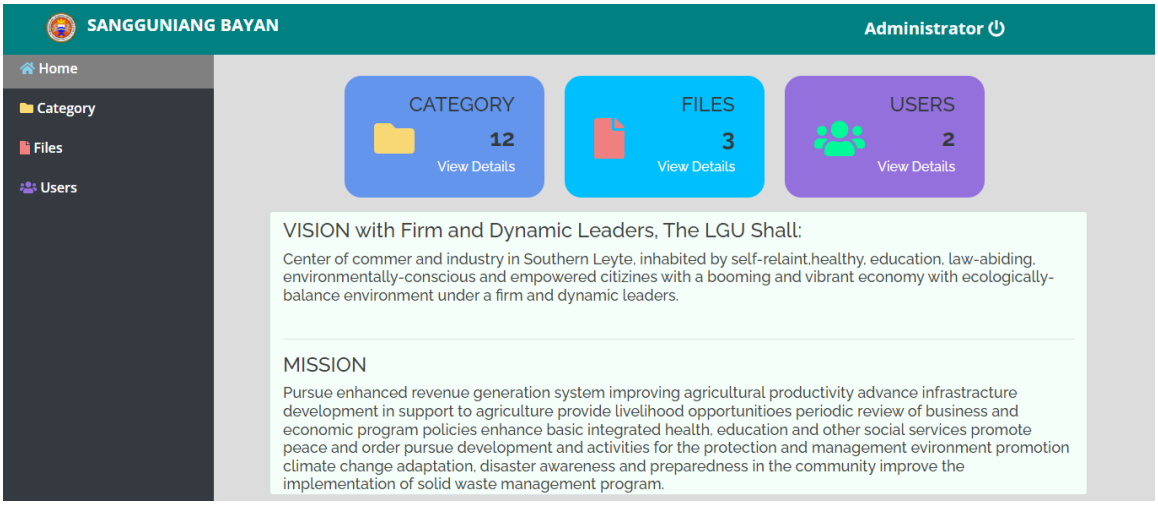






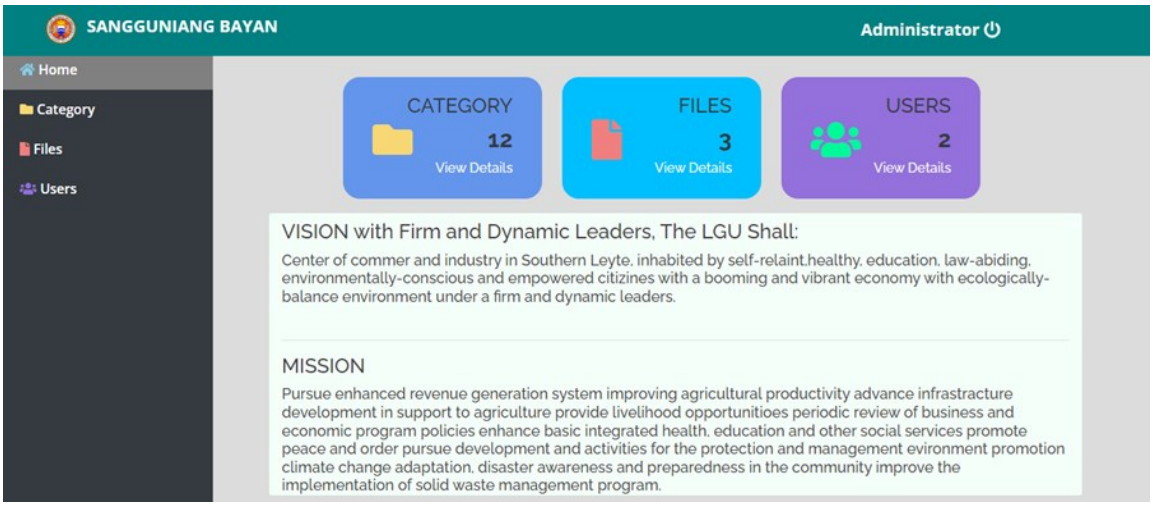
Users Guide

Administrator Manual



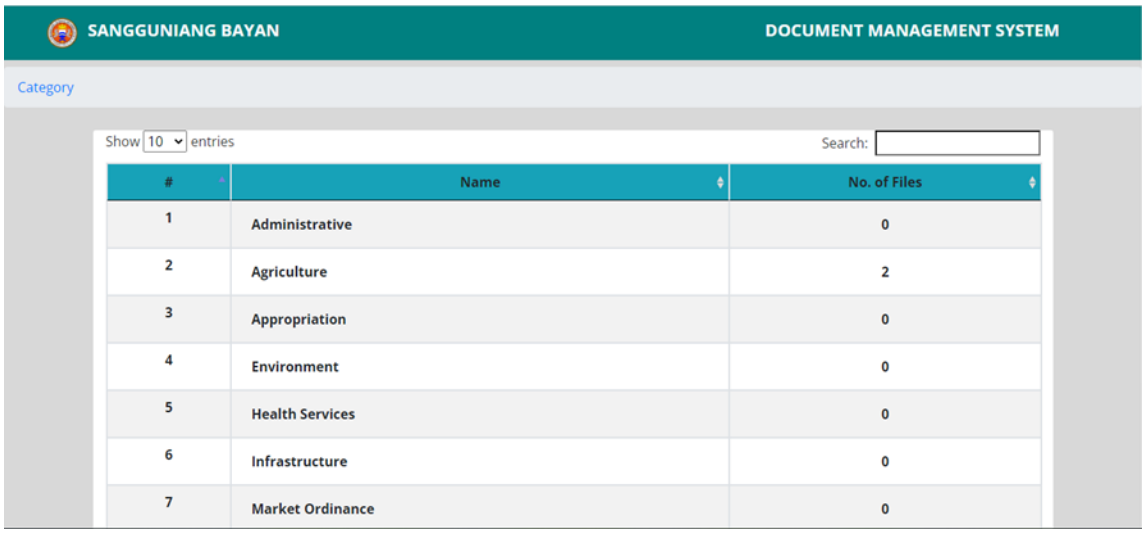
1. User must enter valid information to log-in and click Log-in Button.
2. Click Category Button to create new category.
3. Click Upload Button to add a new file ordinance for an ordinance throughout the category been selected.
4. Select one category to upload a new file ordinance.
5. Click on the right side of category choices to do an action either edit and delete category.
6. Click the Files Button in viewing all files of ordinance and it allows to view, edit, delete, and download file ordinances.
7. Clicks Users Button to manage account through adding and deleting users to access the system.

SB Member Manual



1. User must enter valid information to log-in and click Log-in Button.
2. Click the Category Button to view all categories and search files.
3. Click the Files Button to view the status approved, disapproved, and pending ordinances.
4. Click the Files Button in view and download a specific file of ordinance.
5. Clicks Users Button to manage one's account.

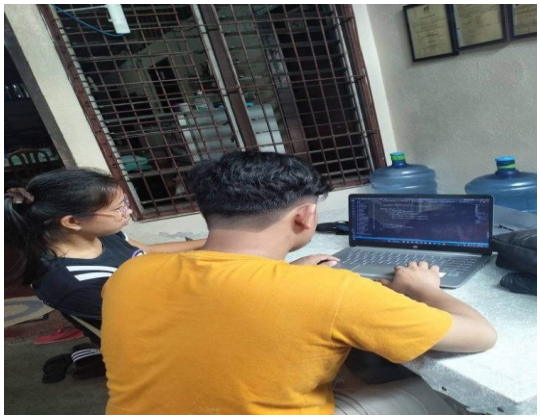
Public Viewer Manual

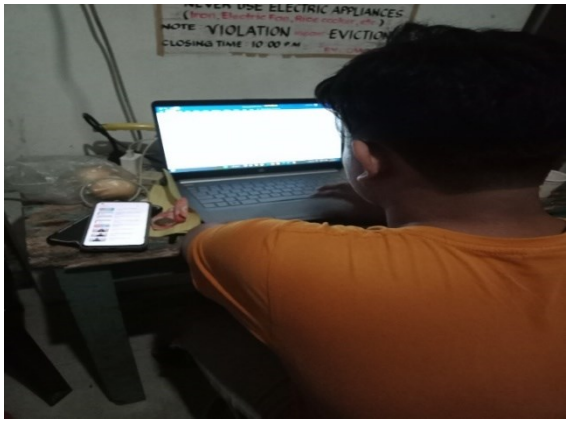


1. Click the link page to view to all categories.
2. Click the categories to view the approved ordinance.
3. Click Search to view specific file ordinance.
4. Click Search to view specific category of file ordinance.

Appendix D

Documentation





Appendix E

CURRICULUM VITAE

Personal Data

Name: Helen Saligue Obus

Birthdate: December 07,1999

Birthplace: Brgy. San Vicente, Matalom, Leyte

Age: 22 years old

Address: Caningag, Matalom, Leyte

Civil Status: Single

Nationality: Filipino

Mother's Name: Erlinda Saligue Obus

Father's Name: Herman Iway Obus

Elementary:

Caningag Elementary School

Secondary:

Esperanza National High School- Junior High School

Esperanza National High School- Senior High School

Tertiary:

Southern Leyte State University- Main Campus, Sogod, Southern Leyte

CURRICULUM VITAE

Personal Data

Name: Jodalyn Catoc Fermano

Birthdate: April 9, 2000

Birthplace: Kamuning Lying in Clinic Quezon City, Metro Manila

Age: 22 years old

Address: Brgy. San Juan, Hilongos, Leyte

Civil Status: Single

Nationality: Filipino

Mother's Name: Antonette Catoc Fermano

Father's Name: Victoriano Calolo Fermano

Elementary:

Owak Elementary School- Brgy. Owak, Hilongos, Leyte

Secondary:

Hilongos National Vocational School- Junior High School

Hindang National High School- Senior High School

Tertiary

Southern Leyte State University- Main Campus, Sogod, Southern Leyte

CURRICULUM VITAE

Personal Data

Name: Ma. Elizabeth Singson Perol

Birthdate: April 24, 2001

Birthplace: Bacoor, Cavite

Age: 21 years old

Address: Purok 4, Brgy. Central, San Francisco Southern Leyte

Civil Status: Single

Nationality: Filipino

Mother's Name: Imelda Singson Perol

Father's Name: Jerry Penaflor Perol

Elementary:

Central, San Francisco Elementary School

Secondary:

Celestino A. Ablas Senior Academy Foundation Inc. - Junior High School

Saint Ignatius Loyola Academy Inc. - Senior High School

Tertiary:

Southern Leyte State University- Main Campus, Sogod, Southern Leyte

CURRICULUM VITAE

Personal Data

Name: Ryan Gono Madrigal

Birthdate: March 5, 2001

Birthplace: St. Cruz Manila

Age: 21 years old

Address: Brgy. Punong, Matalom, Leyte

Civil Status: Single

Nationality: Filipino

Mother's Name: Ruth Gono Madrigal

Father's Name: Dionisio Ilo Madrigal

Elementary:

Hipo Elementary School

Secondary:

Bato School of Fisheries- Junior High School

Bato School of Fisheries- Senior High School

Tertiary:

Southern Leyte State University- Main Campus, Sogod, Southern Leyte

CURRICULUM VITAE

Personal Data

Name: Paul John M. Falcone

Birthdate: October 8, 1999

Birthplace: Hilongos, Leyte

Age: 22 years old

Address: Brgy. Liberty, Hilongos, Leyte

Civil Status: Single

Nationality: Filipino

Mother's Name: Bernandina Falcone

Father's Name: Joel Falcone

Elementary:

Liberty Elementary School

Secondary:

Hilongos National Vocational School- Junior High School

Hilongos National Vocational School- Senior High School

Tertiary:

Southern Leyte State University- Main Campus, Sogod, Southern Leyte