**Chapter-I BACKGROUND OF THE STUDY**

This Chapter will provide Background of the Problem of eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents System in Sangguniang Bayan, Lakewood namely, The Introduction, Project Context, Purpose and Description, Objectives, Scope and Limitations, and the Definition of terms.

**Introduction**

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents System in Sangguniang Bayan, Lakewood is a web-based solution designed for the Municipality of Lakewood, specifically for use by the Legislative members. The system is deployed within the legislative office and serves as a digital archive where critical files such as resolutions, ordinances, meeting minutes, and memos can be securely stored and accessed. This system aims to improve the overall efficiency, organization, and security of document management within the local government unit.

This system plays a significant role in helping the Sangguniang Bayan of Lakewood by ensuring that their important documents are not only properly stored but also easily retrievable when needed. It eliminates the risks associated with physical file storage such as damage, loss, or unauthorized access. With eGovern Archive, SB members can quickly search for files using keywords or categories, maintain orderly archiving of legislative documents, and experience smoother workflow. This promotes transparency, accountability, and better access to government records.

To resolve this problem, the eGovern Archive system was conceptualized as a secure, responsive, and user-friendly solution designed specifically for internal LGU use. It is structured as a standalone platform that operates entirely within the municipal office network without external dependencies or API integration. The system consists of core modules for document uploading, archiving, access control, file encryption, backup and restore features, and activity logging to ensure that files are managed efficiently and securely.

One of the core problems identified in the locality of Lakewood is the lack of digital infrastructure for records management and document security within the Sangguniang Bayan office. The current situational focus of this system addresses these gaps, especially in terms of data loss, unauthorized access, and inefficient retrieval processes. Smart Backup offers a secure, organized, and accessible way for SB members to handle their important files. Its key features include User Authentication and Role-Based Access, File Upload and Archiving, Search and Retrieval, File Version Control, File Encryption and Security, Activity Logging, Data Backup and Restore, and a Responsive Dashboard. Through these functions, the system improves productivity, ensures data protection, and modernizes the LGU’s document management process empowering the Sangguniang Bayan of Lakewood to serve more efficiently and securely.

**Project Context**

The Municipality of Lakewood in Zamboanga del Sur is one of the many local government units in the Philippines striving to modernize its administrative processes and strengthen data management practices. As the local governance grows more complex, the need to secure and systematically manage official documents particularly within the Sangguniang Bayan (SB) office has become a pressing concern. Lakewood, being a municipality with limited digital infrastructure, still relies heavily on manual recordkeeping methods, which often result in disorganized files, time-consuming retrieval processes, and high risks of document loss or damage due to unforeseen events like natural disasters or equipment failure.

Amid these challenges, eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents was proposed to serve as a comprehensive, web-based solution tailored to the specific needs of the Legislative office in Lakewood. This system was conceptualized not only to digitize and organize critical documents such as resolutions, ordinances, and meeting records but also to protect them through encryption and secure access controls. The platform was designed for internal use, ensuring that have convenient internet connection to make the system functional and reliable within the office’s local network. It aims to promote efficiency, security, and transparency within local governance.

Currently, many LGU offices in Lakewood lack centralized and secure file archiving systems, which causes major inefficiencies in daily operations. File loss, duplication, and unauthorized access are common risks, especially since most records are stored in physical folders or unsecured digital files. The deployment of Smart Backup directly addresses this situation by offering a system that is self-hosted, secure, and user-friendly, making it ideal for local government settings that operate with limited technical support and digital capacity. The system provides an intuitive interface for users to upload, retrieve, and manage documents while automatically tracking activity logs and maintaining backup copies of essential records.

One of the main purposes of the system is to empower Legislative members by giving them access to a more modern, reliable, and efficient way of handling official documents. Through its role-based access feature, different users such as secretaries, council members, and administrators can access only the files they are authorized to view or manage. This ensures both data confidentiality and accountability. Additionally, the system allows fast searching and retrieval through categorization and keyword indexing, which significantly reduces time spent locating specific documents.

**Purpose and Description**

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents Legislative Member, Lakewood is purposely designed to help In Municipality of Lakewood to help this following:

* Legislative Member in Lakewood- Helps the Legislative Member in Lakewood to improve and made easy to encrypt their confidential data to be hide safely and retrieve their files.
* Community- The Community benefits this system are those Municipality like Lakewood have doesn’t system to encrypt their confidential files to hide safely.

**Objectives of the Study**

The primary objective of this study is to design and develop a secure, web-based document archiving and retrieval system tailored for the Legislative Member of the Municipality of Lakewood. The system seeks to improve the efficiency, accessibility, and security of handling critical legislative documents, while eliminating the risks associated with manual records management and unsecured digital file storage.

Specifically, this study aims to:

1. To provide a secure login system for authorized users such as administrators and Legislative Member, and assign role-specific permissions to regulate access to system features and file operations.
2. To enable secretary to upload official documents including resolutions, ordinances, memos, and meeting minutes, and allow categorization of files by year, type, and document number for easy tracking.
3. To allow fast and accurate file retrieval through keyword, date, or category searches, and enable authorized users to view or download documents based on their role and access rights.
4. To monitor and record user actions such as file uploads, edits, deletions, and downloads, thereby improving system transparency and security.
5. To provide options for manual or scheduled backup of the system’s database and files, ensuring data integrity and recovery in case of system failure.
6. To build a user-friendly and accessible system layout that adjusts seamlessly across various devices, providing a smooth experience for all users.

**Scope and Limitations**

Scope

The scope of this study is focused on the development and deployment of the eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents System for the Legislative Member of the Municipality of Lakewood. This web-based system is specifically designed to function within the local network of the SB office and required convenient internet connectivity. The system allows SB members to securely store, manage, and retrieve legislative files such as ordinances, resolutions, and meeting minutes. It includes role-based access controls, ensuring that only authorized users such as administrators, secretary can perform actions appropriate to their roles.

Additionally, the system integrates essential security features such as file encryption and manual backup processes to protect sensitive data from unauthorized access or loss due to technical failures. It also provides an organized document retrieval feature through search functionality, keyword indexing, and version control to support efficient workflow. Another key aspect of the system is its standalone deployment, which is specifically tailored for local government offices like Lakewood that operate with limited digital infrastructure. Overall, the system aims to promote transparency and streamline document management within the SB office by modernizing and securing the handling of official legislative records.

Limitations

Despite its strengths, system has several limitations. First, the system is restricted to internal use within the SB office and does not support access from outside networks, remote users, or mobile devices. This means that users must be physically connected to the office network to access the system. Second, there is no public portal available; the system is not designed for citizen access or online publication of government records.

Moreover, the system does not support real-time cloud syncing or integration with external platforms, meaning it cannot be scaled for multi-branch LGU access or automatic online backups. It is also limited strictly to document management and does not handle other aspects of governance such as budget tracking, citizen records, or service requests. In terms of file handling, the system is designed mainly for text-based formats like PDFs and Word documents, and does not support media files such as images, videos, or audio.

Additionally, while the system is intended to be user-friendly, it still requires users to have basic computer skills to operate its features effectively. Lastly, the backup and restore functions must be manually initiated by the system administrator, as the system does not include automatic or scheduled backup capabilities. These limitations highlight areas for potential future improvement but do not diminish the system's overall value as a foundational tool for improving records management in Lakewood's local government.

**Definition of Term**

**Smart Backup** – A secure, web-based archiving and retrieval system developed specifically for the Legislative Member of Lakewood, designed to store, manage, and protect important legislative documents like resolutions, ordinances, and meeting minutes.

**Archiving –** The process of saving or storing official Legislative documents in a secure digital location for long-term access and management.

**Retrieval** – The action of locating and accessing previously saved documents using search functions such as keywords, categories, or file types.

**Sangguniang Bayan (SB)** – The legislative body of the municipality of Lakewood, which includes councilors, the vice mayor, and other designated local government members who manage and pass local policies.

**Admin** – A user role with the highest authority in the system responsible for managing the accounts of users (Legislative Member and secretaries), uploading documents, overseeing system functionality, and initiating backups.

**SB Staff / Secretary** – Users assigned to upload, manage, and retrieve official legislative files in the system. They are given specific access permissions set by the admin.

**User Authentication** – The process of verifying the identity of system users through login credentials (username and password) to ensure secure access.

**Role-Based Access Control (RBAC)** – A security feature that restricts access to certain system functions based on a user's role (e.g., admin, secretary, Legislative Member), ensuring that only authorized individuals can perform specific actions.

**Encryption** – A method of protecting data by converting it into a secure format that can only be accessed or decrypted by authorized users.

**Document Backup –** The process of saving a copy of the system’s files and data to prevent data loss in case of accidental deletion, system failure, or disaster.

**Restore** – A function that allows previously backed-up files to be returned or recovered to the system.

**Activity Log** – A feature that records user activities such as login attempts, file uploads, deletions, and downloads to maintain transparency and track changes.

**File Upload** – The process where users add new documents into the digital archive for storage, categorization, and future retrieval.

**Search Function** – A tool that allows users to find specific documents by entering keywords, document types, or dates.

**Responsive Dashboard** – A system interface that adjusts automatically across various devices such as desktops, laptops, or tablets, displaying functions based on the user’s role.

**File Version Control** – A feature that tracks and manages changes to documents, ensuring that users can access updated or previous versions if needed.

**Database** – The storage area within the system where all documents, user credentials, logs, and system settings are saved securely.

**Web-Based Platform** – The system runs using a browser and local internet connection, eliminating the need for software installation and allowing access through the SB office network.

**Internal Network** – Refers to the SB office's local area network (LAN), which is used to run the system securely without needing public internet access.

**System Dashboard** – The main control panel displayed after login, showing accessible features depending on the user’s role.

**Confidential Files** – Sensitive documents like draft ordinances, internal memos, or legal files that must be protected from unauthorized access.

**Manual Backup** – A backup process that requires the admin to manually initiate file saving at regular intervals.

**Chapter II- REVIEW OF RELATED STUDIES AND SYSTEM**

This chapter includes the technical background of the system and a review related studies and system that will help push the study forward.

**Technical Background**

The technical background of eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents in Legislative, Lakewood, focused on Legislative Member files restores and retrieval files, involves a blend of digital technologies tailored to enhance their operation in terms of files management through a secure and user-friendly environment. Here are the key technical components and considerations:

Web-Based Platform The system operates primarily on a web-based platform accessible via standard web browsers. This ensures ease of access across various devices including smartphones, tablets, and desktop computers, catering to the diverse technological capabilities within the Municipal Offices.

The user can upload here files to serves as the backbone for Backup and hide safely their files.

The user can retrieve the files if this are accidentally deleted and the user can search their files or download and print if they want to download it and open or Print.

Mobile optimization recognizing the prevalence of mobile devices, the platform is designed with responsive web design principles. This ensures that the user interface and content layout adapt seamlessly to different screen sizes and resolutions, optimizing usability on Laptop/Computer.

Security and privacy measures stringent security protocols are implemented to protect user admin dashboard data, prevent unauthorized access, and ensure compliance with data protection regulations encryption techniques and secure data storage practices safeguard sensitive information collected during user interactions.

Scalability and Maintenance the system architecture is designed for scalability to accommodate growing user bases and expanding content libraries. Regular maintenance routines ensure system reliability, performance optimization, and continuous updates to meet evolving educational needs and technological advancements.

**Programming Environment**

**Hardware Specification**

The laptop was the essential tool in building eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents in Sangguniang Bayan, Lakewood the entire flow of the system would not function without this technology. Other hardware was also crucial in the whole system success. This system is suitable for any kind of laptop and a computer. This some hardware used is specified below:

* Operating System: Laptop (Core i5)
* Memory: Minimum 16GB RAM
* Storage: SSD with at least  [512](tel:512)GB capacity.

**Software Specification**

In this study, the researcher used a Laptop/Computer and a Php Software Programming Language Compiler, CSS as a Designing Tools and the HTML for the Foundation of the System. It was Simplest and easiest way to create a System in Microsoft Window. Together with the SQL database this used for storing data for admin login registration.

Some of the software used for minimum significant requirements are follows:

Operating System: Laptop/Computer

* PHP
* CSS
* HTML

**Related Studies**

Foreign Studies

Smith, et al. (2023) “emphasized the importance of structured systems for coordination and information access in public service operations”. Their study highlighted how empowering internal stakeholders through dedicated systems such as secured file management platforms can lead to more responsive and accountable governance. They recommended investing in technologies that promote efficiency, data integrity, and controlled access to sensitive information.

Brown, R., et al. (2022) examined digital transformation practices in Europe and the Global South. Their findings revealed that document management platforms supported by community-driven initiatives can significantly improve institutional recordkeeping, especially in local governments. The study underscores how local-level platforms help bridge the gap between technological infrastructure and information accessibility in administrative processes.

Garcia, M., et al. (2021) conducted a study on information systems used in educational institutions and found that a structured digital repository with proper file tracking, access levels, and organized document storage greatly improved administrative transparency and workflow. This emphasized the importance of having an internal file archiving system that promotes accessibility and security.

Patel, S., et al. (2020) explored the development of efficient digital content distribution systems and their benefits in reducing inefficiencies in public service delivery. They concluded that having a centralized document management infrastructure significantly reduces redundancy, simplifies access to essential records, and improves collaboration across departments.

Nguyen, T., et al. (2024) explored the use of digital indicators and metadata tagging in internal management systems. Their systematic review found that systems equipped with searchable metadata, layered access permissions, and consistent version control contributed significantly to institutional efficiency, particularly in government and academic settings. These systems also aided decision-making through improved data reliability and traceability.

**Local Studies**

According to Frede Moreno1, Josephine Sulasula2024, “Decentralized governance and local government management in the Zamboanga Peninsula Region, Philippines: An analytical review”.This study explores the dynamics of decentralized governance and local government management in the Zamboanga Peninsula region of the Philippines. It offers an analytical review of the policy frameworks, institutional structures, and challenges associated with decentralization in the region. Through a comprehensive examination of existing literature, interviews, surveys, and case studies, the research evaluates the extent to which decentralization has impacted local governance, service delivery, and citizen engagement. The study finds that while decentralization has the potential to enhance local autonomy and improve service delivery, its success is often impeded by institutional capacity gaps, political interference, and limited financial autonomy at the local government level. Moreover, the study highlights the importance of citizen participation and institutional reforms in maximizing the benefits of decentralization. The findings contribute valuable insights to the ongoing discourse on local governance and offer recommendations for strengthening governance structures, improving financial management, and enhancing citizen engagement to facilitate more effective decentralization in the Zamboanga Peninsula region.

Santos, J., et al. (2023) conducted a regional study focusing on documentation practices in government offices in Zamboanga Peninsula. Their findings revealed a widespread reliance on manual filing systems, which often led to inefficiencies and data loss. The study recommended implementing secure digital platforms for file archiving to enhance service delivery, protect sensitive data, and improve governance transparency.

Lim, M., et al. (2022) reviewed the impact of digitization in public institutions. Their research emphasized how centralized file systems featuring backup functions, user access logs, and secure storage enable government offices to respond more effectively to internal administrative needs. They recommended investing in responsive, web-based platforms for better information organization and accountability.

Reyes, A., et al. (2021) examined digital literacy and systems use among public sector employees. Their research showed that with training, staff are more capable of navigating platforms for secure document access and archiving. They recommended the development of web systems that are intuitive, role-based, and backed by training modules to ease the transition from manual to digital document workflows.

Cruz, M. C., et al. (2020) proposed a framework for a digital community information system that focused on efficient data storage, access control, and security. The study emphasized the need for platforms that allow real-time access to critical files, categorized storage, and administrative monitoring features essential for local government operations and citizen services.

Dela Cruz, P., et al. (2024) analyzed existing public office systems and found a lack of real-time backups and proper access restrictions, increasing the risk of data breaches. Their review recommended implementing user-authenticated systems with encryption, audit trails, and backup protocols to secure critical institutional data and streamline administrative processes.

**Related Systems**

DOST-PCIEERD (2022) developed an internal government platform that uses role-based access control and automated alerts. The system features a document tracking mechanism, searchable file repository, and automated classification using machine learning algorithms. It was developed to help government agencies securely store and retrieve official communications and records.

NDRRMC (2023) introduced a government archiving system that provides automated data backup and secured multi-user access. Designed with mobile accessibility and offline access features, the system enables local offices to store and retrieve important files securely even without internet connectivity, similar to Smart Backup’s deployment within the local network.

Real-time Monitoring System in Oriental Mindoro (2023) implemented a local information system that focused on internal file handling and analytics. Their document repository integrated a search engine powered by AI and included administrative dashboards that provided real-time logs of access, updates, and deletions. The study reported a high level of user satisfaction in managing records.

DepEd Philippines (2020) developed a digital document management platform to streamline internal memorandums, circulars, and student records. The system includes user authentication, responsive design, categorized archives, and automated reminders for document expiration. It reflects best practices in structured and secure file handling in a public institution.

LGUs Philippines (2024) launched a digital system to support municipal operations through an image-based archiving and reporting tool. It utilized drones and geotagging to support visual documentation of public infrastructure. While more media-focused, the system shares core features with Smart Backup, including organized storage, role-based data access, and administrative control.

**Chapter-III- DESIGN AND METHODOLOGY**

This Chapter will provide the Requirements Analysis, Method/Model, Proposed System Flow, Context Diagram, Use Case Diagram, Class Diagram, Activity Diagram, Sequence Diagram, Requirements Documentation, System Software Design, Product and Processed Input Output (IPO) Diagram.

**Requirements Analysis**

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents is a web-based platform developed specifically for the Legislative Member of Lakewood to securely store, manage, and retrieve important legislative documents such as resolutions, ordinances, memos, and minutes of meetings. The system replaces traditional manual filing methods and unprotected digital tools with a centralized archive that improves accessibility, enhances security, and ensures long-term data protection within the Legislative office. By providing a digital environment tailored for internal use, the platform eliminates common risks like physical damage, unauthorized access, or accidental loss of sensitive files.

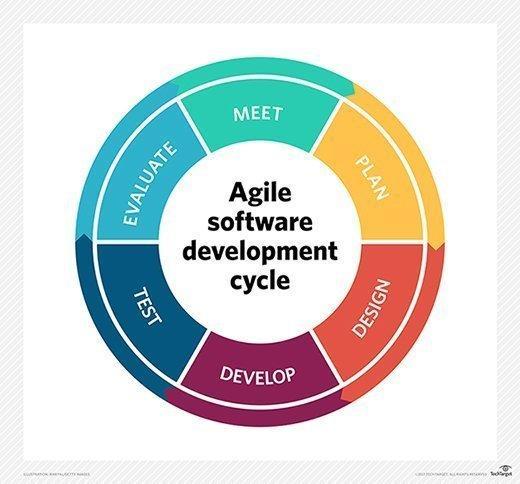
This system's primary function is to allow authorized users such as Legislative Member and administrators to upload, archive, and retrieve documents in an organized and encrypted manner. Through keyword search, file categorization, and version control, users can easily locate and manage the documents they need while maintaining a high level of confidentiality. The platform also enables secure backup and restore options, ensuring that critical files can be recovered in case of deletion or system failure. These core functionalities promote a smoother workflow and more effective document management within the local government unit.

To ensure secure handling of data, Intelligent backup features user authentication and role-based access control, encrypts files upon upload, and maintains a full activity log of every user interaction. Confidential files are accessible only to designated personnel, and the system uses secure local hosting without any external API integration. This design protects SB documents from external threats while allowing real-time file updates and changes within the office network. The intuitive dashboard interface also provides quick summaries of recent activities and overall file usage to enhance monitoring.

The development of Intelligent Backup was based on identified challenges faced by the Legislative office in Lakewood, such as disorganized document handling, limited access to past records, and lack of secure backup systems. Surveys revealed that existing methods were prone to data breaches and inefficiencies, significantly affecting the Legislative ability to deliver transparent and accountable governance. In response, the proposed solution was structured to address these weaknesses directly, with emphasis on security, accessibility, and usability.

Lastly Intelligent Backup offers a modern, reliable, and secure digital file management system tailored to the needs of the Legislative Member of Lakewood. It enables efficient archiving and retrieval of legislative documents while safeguarding sensitive information through encryption and access control. By providing a centralized and responsive platform, the system not only modernizes the LGU's operations but also ensures that important records are preserved, organized, and accessible when needed. This contributes significantly to better governance, accountability, and overall service delivery within the municipality.

**Method Model**



*Figure 1 - Agile SDLC*

*Figure 1- Shows the Software Development Life Cycle using the Agile Model from the planning stage up to the deployment stage.*

Agile is the best software development Method because of its continuous improvement process. This Methods gives the researcher the best way to enhance the software for the future. This Methods also helps the researcher find ways to solve issues in the current system and introduce one if needed. The Requirement and Results can be evaluated and corrected during development, allowing the team to deliver precisely the software the Customer wants.

The Researcher used agile SDLC methodology based on our collaborative decision making between requirements and Solution Teams and a cyclical, iterative progression of producing working Software. Work is done in regularly iterated cycles, known as a sprint, usually lasting two to four week or more. Agile, you can often don’t design for needs that could come up in the future, even if they seem obvious. This is a point where the developments teams and security teams tend to struggles. Security teams aim to anticipate attacks, attackers, and risks. As needs emerge and are refined over time, Security requirements that weren’t expected at the beginning of the process can emerge.

**First is Meet**, define the project scope, goals, and stakeholders' roles in uploaded files to safe and retrieve data.

**Second is Plan,** create a structured plan and set project goals, timeline, needed resources, and define key features like secure storage and retrieval.

**Third is Design**, develop web-based system and database structure for storing and backing up documents.

**Fourth is Develop**, developing the system components using appropriate algorithms and ensure the user interface (UI) that supports file upload, intelligent backup, search and user access features.

**Fifth is Testing**, validate the system's functionality, identify and correct errors, and gather user feedback to refine features and functionalities.

**And last is Evaluation,** evaluate user satisfaction, gather recommendations for improvements, and determine if the system meets its objectives for Local Legislative Documents.

**Proposed System Flow**

Start

Select user type

If user Type Password in Admin?

Enter username and Password

Admin db

New Filename and upload

Files uploaded/Retrieve Files/Print/Download/Search

Database

Enter username and Password

SB member db

View File, Update sb account

No

Yes

End

*Figure 2 - Proposed System flow chart*

Figure 2: Shows the step-by-step Process of the Proposed System, which begin with admin that will manage the system to User and manage the account of the user.

**Context Diagram**

Upload Files/Retrieve Files

Secretary

Legislative Member

Manage the System

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents System

Login To View

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*Figure 3 - Context Diagram*

The figure above shows the interaction made by the user privilege of the application. The secretary can manage the system and uploading files and the Legislative Member can only view the files.

**Use Case Diagram**

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents

Admin

*Figure 4: Use Case Diagram*

The Figure above shows the proposed application’s user Privileges with standard modules they can access. The users can access the map/video and admin can send Gmail To the Users and Manage the Map and Video Preparedness.

Sangguniang Bayan Member

Admin/Secretary

Admin

*Figure 4 - Use Case Diagram*

The Figure above shows the proposed application’s user Privileges with standard modules they can access. The SB Staff can Upload Files and Retrieve if this files accidentally Terminated.

|  |  |
| --- | --- |
| Use Case ID no. | 1 |
| Use Case Name | Login |
| Actor(s) | Sangguniang Bayan Member, Secretary |
| Description | This use case allows users to securely access the system by entering valid login credentials. |
| Preconditions | User must be registered in the system. |
|  | User must have a valid username and password. |
| Postconditions | User is redirected to their respective dashboard (Admin or SB Panel). |
| Main Flow | 1. User opens the login page. |
| 2. User inputs valid username and password. |
| 3. System verifies credentials. |
| 4. If valid, user is granted access and redirected to the dashboard. |
| Alternate Flow | If login fails, an error message is displayed and user must retry. |

**Use Case Description**

*Table 1 - Admin/SB Login and Admin/SB Input Password.*

This table allows the user, either a Sangguniang Bayan Member or an Admin/Secretary, to access the system by entering their username and password. Once logged in successfully, they are directed to their dashboard where they can use the system's features.

|  |  |
| --- | --- |
| Use Case ID no. | 2 |
| Use Case Name | Dashboard Access |
| Actor(s) | Sangguniang Bayan Member, Admin/Secretary |
| Description | Once logged in, users are routed to a role-based dashboard where they can access their permitted features. |
| Preconditions | - User must have successfully logged in. |
|  | - System must identify user’s role (Admin or SB Member). |
| Postconditions | - Dashboard is loaded based on the user’s role.  - User can view and access available features. |
| Main Flow | - System identifies the user role after login. |
| - System loads the appropriate dashboard (Admin or SB Panel). |
| - User views and interacts with the functions available in their panel. |
| - System identifies the user role after login. |

*Table 2 - Admin Panel/User Panel or Dashboard*

This table safter a successful login, users are taken to their dashboard depending on their role. The Admin or Secretary sees the Admin Panel, while the SB Member sees the SB Panel. Each panel shows the tools and options that the user is allowed to use.

|  |  |
| --- | --- |
| Use Case ID no. | 3 |
| Use Case Name | Files Upload |
| Actor(s) | Admin/Secretary |
| Description | Admin or Secretary uploads official SB documents to the secure file archive system. |
| Preconditions | User must be logged in. |
|  | User must have Admin/Secretary role. |
| Postconditions | File is successfully stored and accessible for retrieval.  Upload is logged in the system. |
| Main Flow | - Admin navigates to the file upload section. |
| - Admin selects a file to upload. |
| - System checks file type, size, and duplicates. |
| - File is saved in the secure archive.  - System shows success message. |
| Alternate Flow | - If the file fails validation (e.g., size or type), an error is shown and upload is rejected. |

*Table 3 – Admin/SB Staff Uploading Files*

This table allows both SB Members and Admin/Secretaries to search for and open saved documents from the system. They can preview or download the files whenever they need to use or review them.

|  |  |
| --- | --- |
| Use Case ID no. | 4 |
| Use Case Name | Retrieve Files |
| Actor(s) | Admin/Secretary |
| Description | This use case allows users to search for and access stored SB files in the system. |
| Preconditions | - User must be logged in. |
|  | - Files must already exist in the system archive. |
| Postconditions | User successfully views or downloads the requested file. |
| Main Flow | - User opens the file retrieval page. |
| - User enters keyword(s) or filters to search files. |
| - System shows search results. |
| - User selects a file.  - System displays file or allows it to be downloaded. |
| Alternate Flow | If no results match the search, a “No file found” message is displayed. |

*Table 4 -Admin/ SB Staff Retrieve Files*

This table illustrate the function of the admin to the system like admin can manage the Account of the user then manage the System and the SB Staff retrieve the files if they are deleted.

**Class Diagram**

+String Password

+String Manage SB Account

+String Upload Files

+String Retrieve files

Admin Dashboard

+String Password

+String Upload Files

+String Retrieve Files

Database

+String Password

+String View Files

SB Staff Dashboard

*Figure 5 - Class Diagram*

The Figure above shows the static structure for a Class Diagram it shows relationships between classes, layout constraints, object, declared attributes, and operations of data stored in the database used by the system and their connection to each one.

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**Activity Diagram**

Admin Function

If Admin Password is Correct admin Dashboard Display

Admin Type password

Admin Login

Login Display

No

Yes

Admin Update SB Acc. And manage the System

SB Function

If SB Password is Correct SB Dashboard Display

Login Display

SB Login

SB Type password

View File

No

Yes

**Sequence Diagram**

Sangguniang Bayan Member

4. Files Upload

7.Retrieve Files/Download and View Files and Print

3.Retrieve Database

Secretary

eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents

Database

1.Manage SB Acc.

2.Manage System

5.Files Uploaded and View

6.Retrieve Database

8.Logout

*Figure 7 - Sequence Diagram*

The figure above shows the interactions and details of the proposed system operations.it begins the user system that access the system to Upload Files and Retrieve files and how it works.

**Requirements Documentation**

The Functional Requirements (FR) and Non-Functional Requirements (NFR) for the "eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents.

**Functional Requirements**

1. The Secretary/Sangguniang Bayan Member enter password Login /Redirect Dashboard allow Admin and User to Enter Password Before log into the Admin Dashboard but the user allow to Redirect to Dashboard.
2. The Secretary manage the system and manage the account of the sangguniang bayan member.

**Non-Functional Requirements**

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system rather than specific behaviors.

Some of the non-functional requirements include:

* **Performance**: Response Time The system should respond to user actions within 3 seconds under normal load conditions.
* **Reliability**: Availability The system should have an uptime of [99.9](tel:99.9)% availability excluding scheduled maintenance.
* **Usability**: User Interface The user interface should be intuitive and accessible, ensuring ease of use for all user roles.
* **Security Data Security**: User data should be encrypted in transit and at rest to ensure confidentiality and integrity.
* **Access Control**: Access controls should be implemented to enforce role-based permissions and protect sensitive information.
* **Scalability**: Scalability The system should accommodate up to 10,[000](tel:000) simultaneous users during peak periods without degradation of performance.

**Modules Described**

The proposed this are promoted the Government Archive: Intelligent Backup and Retrieval for Local Legislative Documents System in Sangguniang Bayan, Lakewood the SB Member can Upload here files and Hide all Here Confidential Files to not access other person this system implement soon In Municipality of Lakewood.

**Conceptual Framework Using Revised IPO**

Admin manage the account of the user and system, upload files, retrieve Files and the sangguniang bayan member can view the files

Admin /User Dashboard Display

Admin/User Enter Password Before Redirect to Dashboard

INPUT

PROCESS

OUTPUT

*Figure 9 - IPO Diagram*

The figure shows the system structure of the software or system input device is to Login the admin input password but the user is directly view dashboard next the system displays the dashboard for user and admin, La

Lastly is the output or display the system like admin manage the system and then the SB Staff Upload Files and Retrieve Files.

**System Architecture**

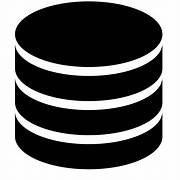
Database



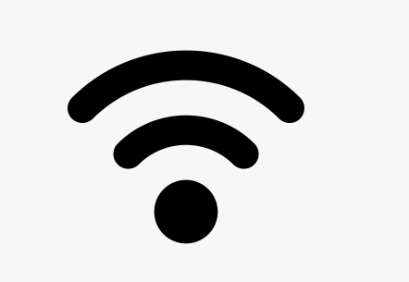
User



System



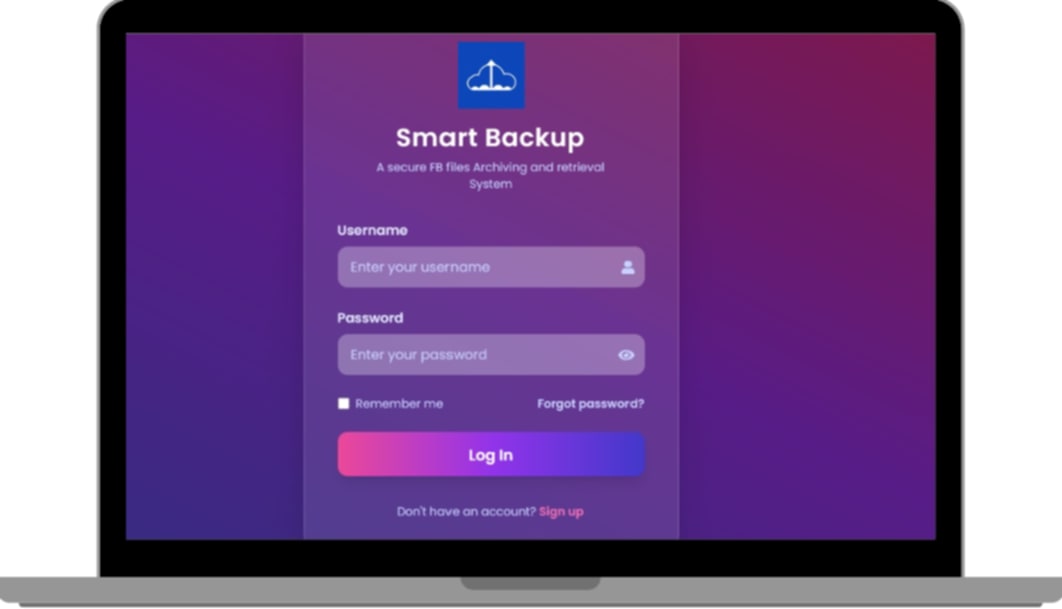
Wi-Fi

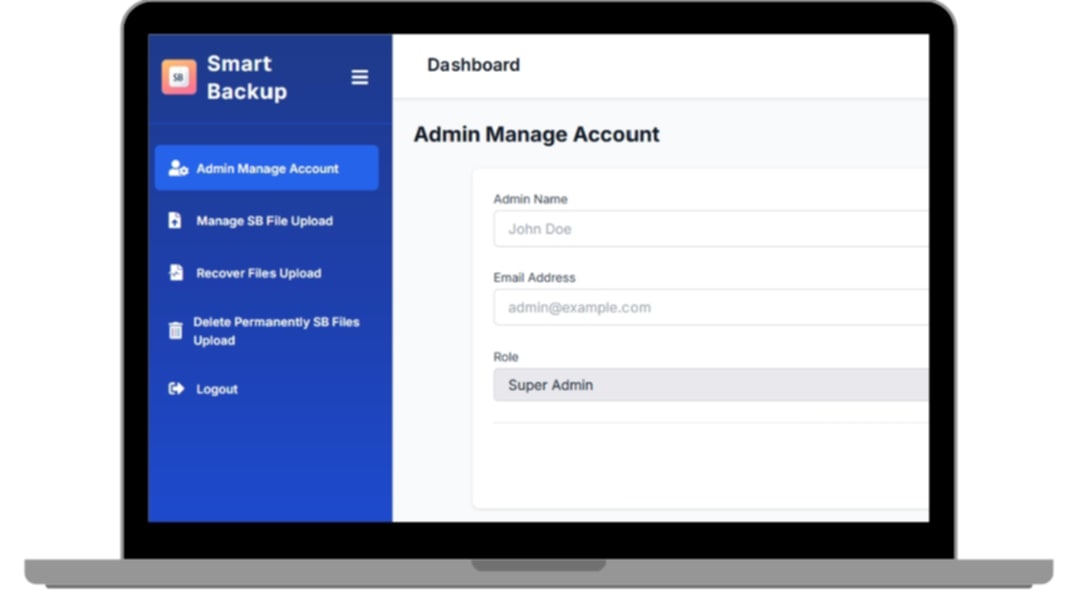
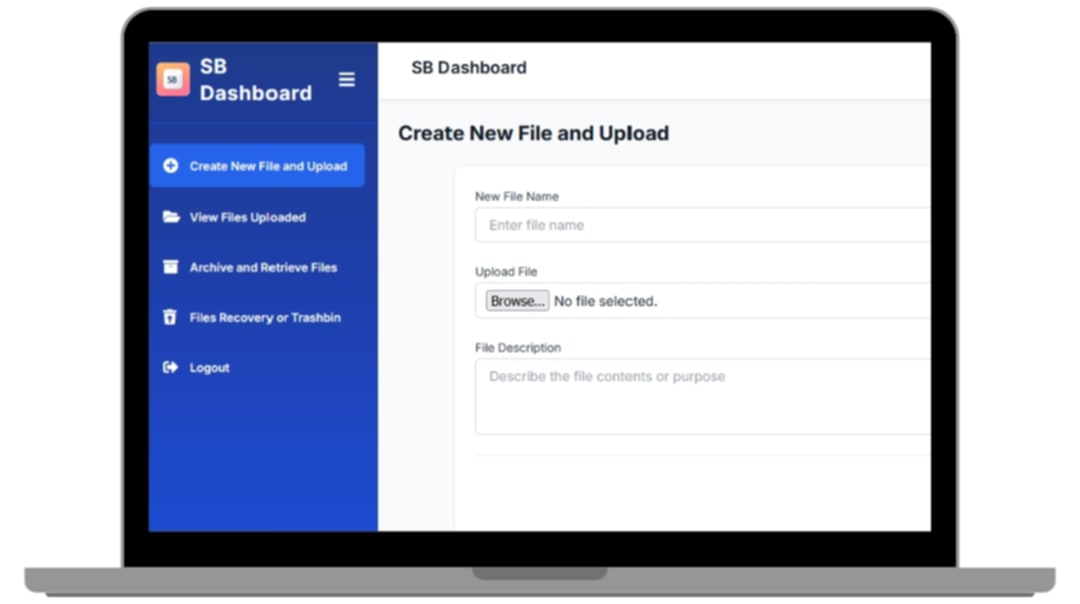
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*Figure 10 - System Architecture*

This figure depicts the system architecture for the eGovern Archive: Intelligent Backup and Retrieval for Local Legislative Documents the user and Admin only can access the system is via used internet like Wi-Fi to Upload Files and Retrieve Files.

**Design of System Software Product and/or Process**

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