Overview of the Current State of Technology

The Quality Assurance (QA) Office of Filamer Christian University (FCU) currently relies on basic cloud storage tools, primarily Google Drive, to manage and store various institutional documents. Supporting tools such as PDF converters are also used by staff to process and upload documents in the correct format. While Google Drive offers a straightforward platform for storing and sharing files, its current implementation lacks the structure and control needed for efficient academic document management.

In practice, files are manually organized into folders by QA staff, who must consistently monitor different directories for newly uploaded documents. This manual checking is necessary because Google Drive does not provide built-in notification systems or tracking logs that would alert QA personnel when a file is uploaded, moved, or renamed. As a result, staff must open each folder periodically to verify the presence and correctness of submissions from various departments.

Additionally, most interdepartmental communication regarding file submission is done informally through Messenger and other messaging apps, rather than through a centralized or automated platform. Once instructed, department staff upload their files directly to the shared Google Drive folder, often without following the required file naming conventions or organizing files in the appropriate directories. This results in misplaced documents, inconsistent file names, incorrect formats, and redundant files—making it difficult for QA personnel to maintain an accurate and clean digital repository.

Though internal policies exist concerning naming conventions and proper folder placement, they are not consistently followed due to the absence of enforcement mechanisms or system-level restrictions. Consequently, the QA Office faces a repetitive and time-consuming process that negatively affects workflow efficiency and increases the risk of human error in document handling and compliance tracking.

Desired State of the Technology

To address the limitations of the current file management approach, the proposed system envisions a **centralized, secure, and intelligent document management platform** tailored to the specific needs of the QA Office. The system will eliminate the repetitive manual checking of files and reduce errors arising from disorganized storage and inconsistent file submissions.

At its core, the system will feature a **role-based access control mechanism**. This will allow users to be assigned roles—such as **Super Admin**, **QA Admin**, and **Department Users**—each with specific permissions for uploading, editing, viewing, or managing

files. This will ensure that only authorized personnel can perform sensitive actions, thereby safeguarding the integrity and confidentiality of QA documents.

A critical feature of the system is its **automated notification and tracking** functionality. QA Admins will be notified immediately upon file uploads or modifications, with direct links to the file's location for quick verification. This eliminates the need to manually browse folders, improving response time and reducing the risk of missing important submissions.

To further streamline workflows, the system will enforce **file naming and placement rules**. Users will be guided or required to input appropriate file names and select the correct directory or category during the upload process. This improves consistency and minimizes the chances of human error.

Additionally, the system will include a **dashboard** showing pinned documents, recently accessed files, and upload summaries. An **activity log** will record all file-related actions, including who uploaded or modified a file and when the changes occurred. These logs will promote transparency and accountability within the QA processes.

Overall, the desired technology is a **smart document management system** that ensures proper organization, enforces compliance, minimizes manual work, and empowers the QA Office to maintain high-quality, standardized, and secure documentation practices.

Statement of the Problem

The current document management approach of the QA Office, which relies primarily on Google Drive and manual communication, has proven to be inefficient, inconsistent, and error-prone. With no centralized control or automation, the process of uploading, organizing, reviewing, and verifying QA-related files has become repetitive and labor-intensive. As a result, the QA personnel face significant challenges in maintaining an organized and traceable document repository.

Despite the presence of file naming and organization guidelines, their enforcement remains weak, leading to misplaced, mislabeled, or unverified documents. Furthermore, the absence of upload notifications and activity tracking compels QA Admins to manually check folders to detect new submissions or changes, which is both time-consuming and prone to oversight.

Specifically, this study seeks to address the following problems:

1. **Lack of automated notifications** for uploaded or modified files, requiring QA staff to manually inspect multiple folders.

2. **Absence of file access control and user roles**, making it difficult to assign or limit permissions based on organizational hierarchy.
3. **Disorganized storage and inconsistent file naming**, resulting in misplaced or hard-to-trace documents.
4. **Lack of accountability and transparency**, as the current system does not track or log who uploaded, modified, or accessed a file.
5. **Unstructured communication flow** between the QA office and other departments, relying on informal messaging platforms.

Objectives of the Study

The main objective of this study is to develop a **Document Management and Notification System** tailored for the Quality Assurance (QA) Office of [Insert Institution Name]. The system aims to streamline the file handling process, promote compliance with file standards, enhance accountability, and reduce the workload caused by manual tracking and verification.

General Objective

To design and develop a secure, role-based document management system that will organize, monitor, and automate the submission and verification of documents for the QA Office.

Specific Objectives

1. To implement a **role-based access control** system that defines and enforces permissions for Super Admins, QA Admins, and Department Users.
2. To develop a **notification mechanism** that alerts QA Admins when a document is uploaded, modified, or deleted, including direct access links.
3. To create an **upload interface** that guides users to follow naming conventions and proper file placement to reduce misorganization.
4. To integrate a **dashboard view** for QA Admins showing pinned documents, recently accessed files, and a quick overview of recent activity.
5. To incorporate a **logging and audit trail system** that records actions such as uploading, editing, and viewing of documents for accountability.
6. To reduce reliance on informal communication channels by centralizing file submission and verification within the system.

Theoretical Framework

This study is grounded in several established theories and models that provide the foundation for the design and development of an effective document management system. These theories guide the implementation of structured workflows, access control, and information handling within organizations.

1. Information Systems Theory

The Information Systems (IS) Theory emphasizes how information systems are used to collect, process, store, and distribute information. This theory is relevant because the QA Office relies on accurate and efficient handling of institutional files. By applying IS Theory, the proposed system ensures that users interact with the right data, at the right time, using the right tools.

2. Role-Based Access Control (RBAC) Model

The RBAC model defines how users interact with a system based on their roles. Instead of assigning permissions to each user individually, access rights are grouped by role. This is essential in the proposed system where Super Admins, QA Admins, and Department Users require different levels of access and functionality.

3. Human-Computer Interaction (HCI) Theory

HCI Theory focuses on creating systems that are easy to use and interact with. Applying HCI principles ensures that users from various departments can intuitively upload and manage documents, reducing the risk of error due to poor interface design.

4. Diffusion of Innovations Theory (Optional)

This theory explains how new technologies are adopted and spread across organizations. It supports the idea that for the proposed system to be accepted by staff, it must be demonstrably better than the current method, easy to understand, and aligned with the users' needs.

Conceptual Framework
The conceptual framework of this study outlines how the system components will interact to address the challenges in the current file management workflow of the QA Office. It presents a high-level view of the inputs, processes, and outputs involved in the development and use of the proposed document management and notification system. This study adopts an **Input–Process–Output (IPO)** model:

Input

- QA-related documents from department users (e.g., reports, forms)
- User roles (Super Admin, QA Admin, Department User)
- Organizational rules (file naming conventions, access levels)

Process

- User authentication and role-based access management
- File upload with enforced naming and folder placement rules
- Automatic generation of upload notifications with direct links
- Real-time logging of activities (upload/edit/delete/view)
- Dashboard rendering (pinned files, recent uploads, logs)

Output

- Organized, searchable, and secure digital file repository
- Automated notifications for QA Admins upon user activity
- Audit trail for accountability and traceability
- Streamlined file verification and reduced manual workload

Narrative Explanation:

The proposed system begins with input from authenticated users who are categorized based on their roles. Department users will upload files while following enforced naming conventions and folder structures. The system then processes the inputs by storing them in appropriate directories, sending notifications to QA Admins, and logging all user actions.

The outputs are clear and trackable records, structured storage, and automated communication—all accessible through a user-friendly dashboard. This process flow enhances the QA Office's ability to manage documents effectively, maintain security, and ensure compliance.

Operational Definition of Terms

- **Document Management System (DMS)** – A software platform used to store, manage, and track electronic documents and images of paper-based information through a central repository.
- **Quality Assurance (QA) Office** – The department responsible for maintaining and verifying academic and institutional standards through documentation, evaluation, and continuous improvement.
- **Role-Based Access Control (RBAC)** – A system model that restricts system access based on user roles. Each role has specific permissions for viewing, uploading, editing, or managing documents.
- **Super Admin** – The highest-level system administrator with full control over user roles, permissions, system settings, and all files.
- **QA Admin** – A mid-level administrator who manages documents within the QA Office, verifies file uploads, and oversees file organization.
- **Department User** – A user from a non-QA department who uploads documents and interacts with the system under limited permissions.

- **File Naming Convention** – A standardized format for naming files (e.g., Department_Quarter_Year_DocumentType) used to ensure consistency and traceability.
- **Audit Trail** – A record that logs user actions (uploading, editing, viewing) in the system, helping track document activity for accountability.
- **Notification System** – A built-in mechanism that sends alerts (e.g., when a file is uploaded or edited), typically to the QA Admin, to support timely verification.
- **Dashboard** – The main interface of the system displaying pinned files, recent uploads, and user activity summaries for quick access and oversight.

Scope and Limitations of the Study

Scope of the Study

This study focuses on the development of a **Document Management and Notification System** for the Quality Assurance (QA) Office of [Insert Institution Name]. The system is designed to serve three main user roles: **Super Admin, QA Admin, and Department Users**. Its core functionalities include:

- Role-based file upload and access control
- Enforced file naming conventions and folder structure
- Automated notifications upon document uploads or changes
- Dashboard displaying recent and pinned documents
- Audit logging for all file-related activities

The system aims to reduce manual work in file verification, improve document organization, and strengthen compliance with documentation standards. It will be developed using web-based technologies and deployed on a local network or secure hosting solution accessible to authorized users within the institution.

Limitations of the Study

- The system will **not include real-time chat or messaging features**, as communication is expected to occur through formal submissions and notifications.
- The system will **not verify the content quality** of uploaded documents; QA Admins must still review file contents manually.
- Integration with external cloud storage platforms (e.g., Google Drive) is **not included**; the system operates independently.
- User training and institution-wide policy enforcement are **outside the scope** of system development but are recommended for full adoption.
- The system is limited to internal institutional use and **not designed for public or commercial access**.

Significance of the Study

The development of a document management and notification system for the QA Office holds significance for several stakeholders within the institution. By addressing the

inefficiencies and organizational challenges of the current file management setup, the proposed system provides a structured, secure, and user-friendly solution that enhances productivity and compliance.

Quality Assurance (QA) Office

The QA Office will benefit from reduced manual workload, improved organization, and better tracking of file submissions. The system's notification and logging features will enable faster response times and support more accurate documentation for accreditation and internal evaluation.

Department Users

Faculty and administrative staff from other departments will have a clear, guided interface for uploading their documents, reducing confusion around naming and placement. The system simplifies the submission process and ensures files are properly categorized.

System Administrators (Super Admins)

Super Admins will have centralized control over user roles, permissions, and system configuration. This ensures a scalable and maintainable system that can be adapted to future institutional needs.

Institutional Management

By ensuring that QA documentation is secure, complete, and well-organized, the system supports the broader goals of institutional effectiveness, accreditation readiness, and data-driven decision-making.

Future Researchers and Developers

This study can serve as a reference for future capstone projects or research endeavors involving document workflows, administrative systems, or role-based access applications in academic or organizational settings.