DOCUMENT MANAGEMENT SYSTEM

PROJECT SYNOPSIS

OF MAJOR PROJECT

BACHELOR OF TECHNOLOGY

COMPUTER SCIENCE AND ENGNEERING

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JANUARY 2025

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INTRODUCTION

A **Document Management System (DMS)** is a software solution designed to store, organize, manage, and track digital documents efficiently. It replaces traditional paper-based filing systems with a centralized digital repository, enabling users to access, edit, and share documents securely. A DMS improves productivity by offering features such as version control, access permissions, automated workflows, and document indexing for easy retrieval. Businesses and organizations use DMS to enhance collaboration, ensure regulatory compliance, and safeguard critical data from unauthorized access or loss. By streamlining document handling, a DMS optimizes operational efficiency and reduces administrative overhead.

OBJECTIVES

1. To streamline document handling through document automation system.
2. To fastening document processing and approvals.
3. To implement workflow management system to track document status.

LITERATURE REVIEW

A **Document Management System (DMS)** plays a crucial role in efficiently storing, managing, and retrieving documents while ensuring accessibility, and compliance. Traditionally, document management was paper-based, leading to inefficiencies and security concerns. However, with advancements in digital technology, modern DMS solutions now incorporate cloud storage, artificial intelligence, and automated workflows to streamline document processing. Automation significantly enhances efficiency by reducing approval times, minimizing manual errors, and integrating digital signatures for improved accuracy.

Version control is another essential feature of modern DMS, ensuring that document revisions are tracked systematically, preventing data loss and unauthorized modifications. Studies show that version control mechanisms improve collaboration by allowing multiple users to work on the same document while maintaining a structured history of changes. Additionally, audit trails help organizations comply with regulatory standards by keeping records of all document modifications. Security is a major concern in document management, and research highlights the importance of role-based access control, encryption, and authentication mechanisms to prevent unauthorized access.

Collaboration and document forwarding are also key aspects of an effective DMS, as with real-time editing and sharing capabilities enhance teamwork and reduce communication gaps. Furthermore, compliance with industry regulations is a critical factor, with automated retention policies and audit logs helping organizations meet legal requirements while maintaining document integrity. The literature demonstrates that modern DMS solutions have evolved to incorporate automation, version control, security, and compliance features. As organizations generate increasing amounts of digital data, the demand for efficient, secure, and collaborative DMS solutions continues to grow. Future research may explore the integration of blockchain technology and artificial intelligence to further enhance security, efficiency, and transparency in document management.

RESEARCH METHODOLOGY

The development of the **Document Management System (DMS)** follows a structured methodology to ensure efficiency, and seamless collaboration. The project begins with requirement analysis, where user needs, security protocols, and compliance regulations are identified. This phase involves gathering input from stakeholders to define system functionalities such as document request, approval, correction, forwarding, and version control. Based on these requirements, the system design phase outlines the architecture, including database structure, access control mechanisms, and workflow automation.

In the development phase, the system is built using secure web technologies, integrating role-based access control (RBAC) for security, version control for tracking changes, and automated workflows for efficient document processing. The testing phase involves unit testing, integration testing, and user acceptance testing (UAT) to ensure that all features function correctly, and the system meets performance expectations.

Following testing, the deployment phase involves installing the system in a real-world environment, configuring user roles, and providing training for effective usage. The final stage is maintenance and evaluation, where system performance is continuously monitored, feedback is collected, and updates are applied to improve functionality. This iterative methodology ensures a robust and scalable DMS, optimizing document management for organizations while ensuring compliance, security, and user-friendly access.

FACILITIES REQUIRED FOR PROPOSED WORK

Hardware Required-

1. Operating System: Linux
2. RAM: Minimum 4 GB
3. Hard Drive: Maximum 1 TB

Software Required-

1. HTML
2. CSS
3. MySQL
4. JavaScript
5. PHP
6. Visual Studio Code (VS Code)

EXPECTED OUTCOMES

The implementation of the Document Management System (DMS) is expected to enhance efficiency by providing a centralized platform for secure document storage, quick retrieval, and seamless organization, reducing reliance on physical files. Automated workflows for document requests, approvals, corrections, and forwarding will streamline operations, minimizing manual intervention and improving overall productivity. A robust version control system will maintain a history of changes, ensuring document integrity and preventing data loss. Security measures such as role-based access control (RBAC), encryption, and authentication mechanisms will safeguard sensitive documents from unauthorized access.

Additionally, the system will facilitate seamless collaboration through cloud-based access and real-time document sharing, enabling teams to work efficiently from different locations. Proper audit trails and logging mechanisms will ensure compliance with industry regulations, enhancing transparency and accountability. By transitioning to a digital system, organizations can significantly reduce paperwork, lower administrative costs, and promote eco-friendly practices. Furthermore, the DMS will be scalable and capable of integrating with other enterprise applications like ERP, CRM, and cloud storage solutions, making it a flexible and future-ready solution for document management.

BENEFITS

1. Time Saving
2. Reduce Workload
3. Faster response