

A Midterm Progress Report

on

DOCUMENT MANAGEMENT SYSTEM

Submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY
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1. INTRODUCTION

A Document Management System (DMS) is a software solution designed to store, organize, manage, and track digital documents efficiently, helping businesses transition from traditional paper-based filing systems to a fully digital environment. It replaces the need for physical filing cabinets and paper records, offering a centralized, secure, and accessible repository for digital documents. With a DMS, users can seamlessly access, share, edit, and collaborate on documents, regardless of their physical location.

A key feature of DMS is version control, which ensures that multiple versions of a document are tracked and that users always access the most recent updates. This prevents confusion and errors that could arise from working with outdated files. Along with version control, access permissions and role-based access allow organizations to regulate who can view, edit, or share specific documents, safeguarding sensitive information and ensuring that only authorized personnel can make changes.

Automated workflows are another significant benefit of a DMS, enabling organizations to streamline routine processes, such as document approval, review, and distribution. These workflows help reduce delays, minimize errors, and ensure that documents are processed in a timely manner, contributing to overall operational efficiency. Furthermore, the system automatically indexes and categorizes documents based on predefined criteria, such as keywords, metadata, or tags, making document retrieval fast and easy.

In addition to improving operational efficiency, a DMS supports regulatory compliance by ensuring that documents are stored, organized, and maintained according to industry standards and legal requirements. This is particularly important in industries such as healthcare, finance, and legal services, where failure to adhere to regulations can lead to significant penalties and reputational damage. A DMS can provide audit trails that log every action taken on a document, offering transparency and accountability to stakeholders and regulatory bodies.

Security is another cornerstone of a DMS, as it safeguards critical data from unauthorized access, loss, or theft. With encryption, secure cloud storage, and backup capabilities, a DMS helps protect against data breaches and ensures business continuity in the event of technical

failures or disasters. This level of security is particularly crucial as businesses increasingly rely on cloud-based solutions for remote work and collaboration.

Beyond improving internal operations, a DMS fosters collaboration by allowing multiple users to work on documents simultaneously, share feedback, and track changes in real-time. This reduces the time spent on manual communication and enhances teamwork, particularly for organizations with distributed teams or international operations. Moreover, the integration of DMS with other enterprise software solutions, such as Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) systems, allows for seamless data flow across business processes, further improving overall productivity.

By streamlining document handling and reducing administrative overhead, a DMS helps organizations save time and money while ensuring that their documents are easily accessible, well-organized, and secure. Additionally, the system provides valuable insights through data analytics, helping organizations identify trends, monitor performance, and make more informed decisions based on document usage and workflow metrics.

In conclusion, adopting a Document Management System is not just about going paperless; it's about transforming the way businesses manage and utilize their information. By leveraging the capabilities of a DMS, organizations can increase productivity, reduce costs, improve compliance, and create a more collaborative, secure, and efficient workplace.

1.1 OBJECTIVES

1. The system streamlines document handling by enabling requests, approvals, corrections, and forwarding with automation and version control for efficient collaboration.
2. Faster document processing and approvals.
3. Implement a robust version control system to track document revisions, ensuring accuracy, transparency, and easy rollback to previous versionTo test the behaviour of Chatbot in real-time.

1. **The system streamlines document handling by enabling requests, approvals, corrections, and forwarding with automation and version control for efficient collaboration.**

The system is designed to simplify and improve the way documents are managed within an organization. It allows users to easily submit requests, get approvals, make necessary corrections, and forward documents to the next stage, all within a streamlined workflow. By automating these steps, the system reduces manual effort and minimizes errors.

2. **Faster document processing and approvals.**

The system enables faster document processing and approvals by automating routine tasks and reducing manual intervention. Instead of relying on physical movement of files or emails, documents are processed digitally, allowing them to be quickly reviewed, approved, or sent to the next step in the workflow.

3. **Implement a robust version control system to track document revisions, ensuring accuracy, transparency, and easy rollback to previous versionTo test the behaviour of Chatbot in real-time.**

The system includes a robust version control feature that keeps track of all changes made to documents over time. Every time a document is updated or edited, a new

version is saved without losing the previous one. This ensures accuracy by maintaining a complete history of revisions, making it easy to see who made changes and when

2. SYSTEM REQUIREMENTS

2.1 SOFTWARE REQUIREMENTS

1. Operating System: Linux, Windows 10/11
2. HTML
3. CSS
4. MySQL
5. JavaScript
6. PHP
7. Bootstrap
8. Visual Studio Code (VS Code)

2.2 HARDWARE REQUIREMENTS

1. Processor: Minimum Intel Core i3 / AMD Ryzen 3 (Recommended: i5/Ryzen 5 or higher)
2. RAM: Minimum 8GB (Recommended: 16-32GB or more)
3. Storage: Minimum 10GB Free Space (Recommended: SSD for faster performance)
4. Network: A stable internet connection (for Gemini API & Rasa server)

3. SOFTWARE REQUIREMENT ANALYSIS

3.1 PROBLEM DEFINITION

In organizations, managing documents manually or through basic file systems leads to inefficiencies, data duplication, security risks, and lack of version control. Employees often struggle to locate the right documents, face delays in approvals, and lack a clear trail of changes or ownership. The absence of an automated system makes collaboration difficult and increases the chances of human error, document loss, and unauthorized access. Additionally, without a centralized platform, tracking document status, processing requests, and ensuring compliance with organizational policies becomes challenging. Therefore, there is a need for a robust and secure Document Management System that can streamline document handling, enable smooth collaboration, ensure version control, and improve overall workflow efficiency.

3.2 MODULES AND THEIR FUNCTIONALITIES

1. User Interface (UI) Module

- Add/Edit/Delete users
- Role-based access control (Admin, Reviewer, User)
- User authentication and login
- Password management

2. Document Approval & Workflow Module

- Create document approval workflows
- Forward documents to next authority
- Approve, reject, or request corrections

3. Security and Access Control Module

- Document-level access restrictions
- Prevent unauthorized downloads or edits

4. SOFTWARE DESIGN

Designing the Document management system requires a structured approach that ensures reliability, document workflow, security and authentication. Below is a systematic design approach:

1. Sign Up Page Design

Front-End (UI Elements):

- Full Name
- University Roll No.
- Password
- Confirm Password
- Submit Button

Back-End Functionality:

- Validate input (e.g., password length)
- Check if user/email already exists

2. Login Page Design

Front-End (UI Elements):

- University Roll No.
- Password
- Login Button

Back-End Functionality:

- Validate credentials

Check if user exists in the database then verify entered password

If valid:

Start session

If invalid:

Show error message: "Invalid credentials"

3. System Block Diagram

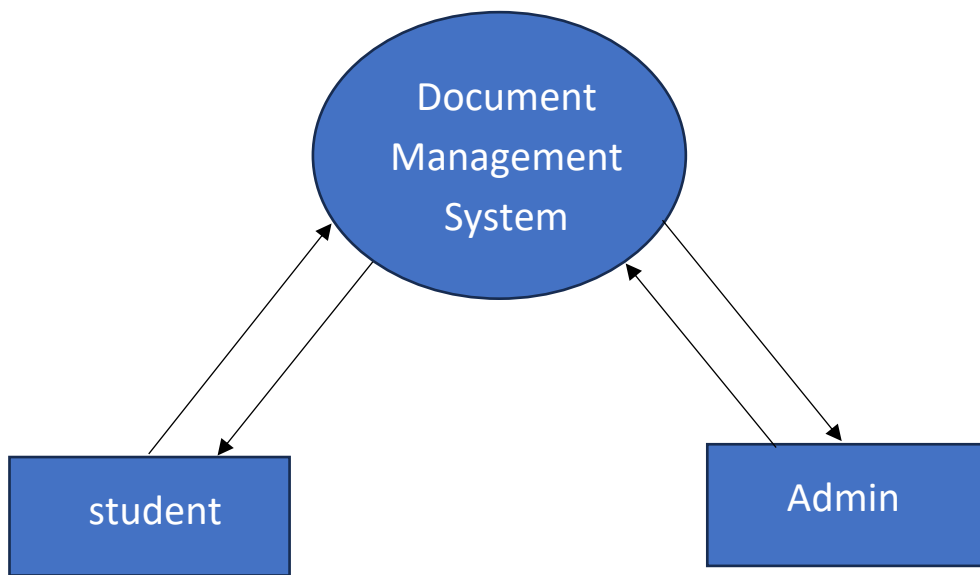
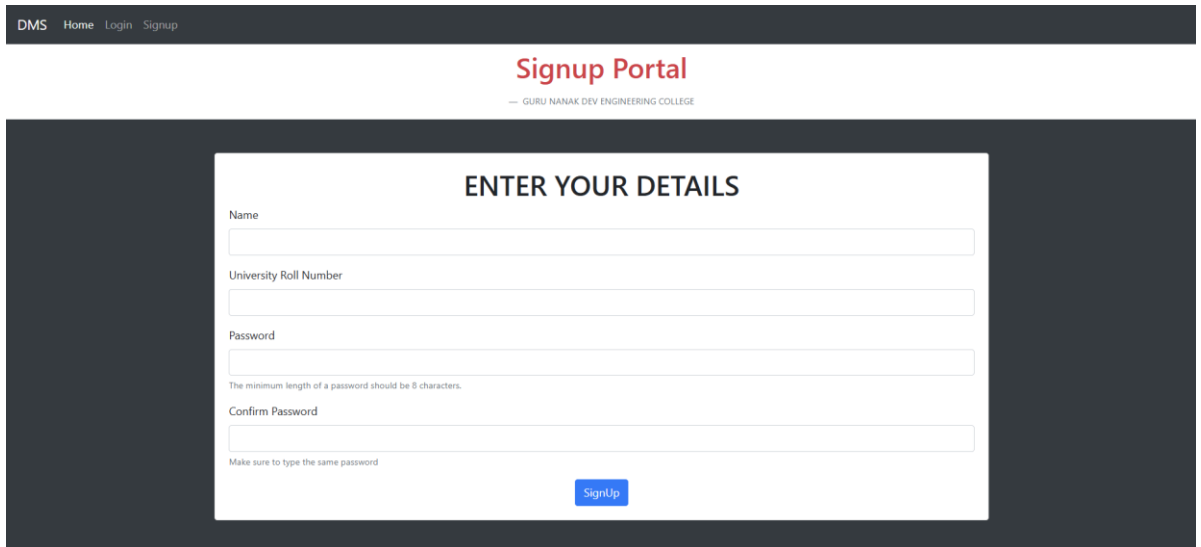


Figure 1:- Block Diagram

5. OUTPUT SCREENS



The screenshot displays the 'Signup Portal' for GURU NANAK DEV ENGINEERING COLLEGE. At the top, a dark navigation bar contains the links 'DMS', 'Home', 'Login', and 'Signup'. Below this, the page title 'Signup Portal' is shown in red, with the college name underneath. The main content area has a dark background and features a white form titled 'ENTER YOUR DETAILS'. The form includes input fields for 'Name', 'University Roll Number', 'Password', and 'Confirm Password'. A note specifies that the password must be at least 8 characters long. A blue 'SignUp' button is positioned at the bottom right of the form.

DMS Home Login Signup

Signup Portal

— GURU NANAK DEV ENGINEERING COLLEGE

ENTER YOUR DETAILS

Name

University Roll Number

Password

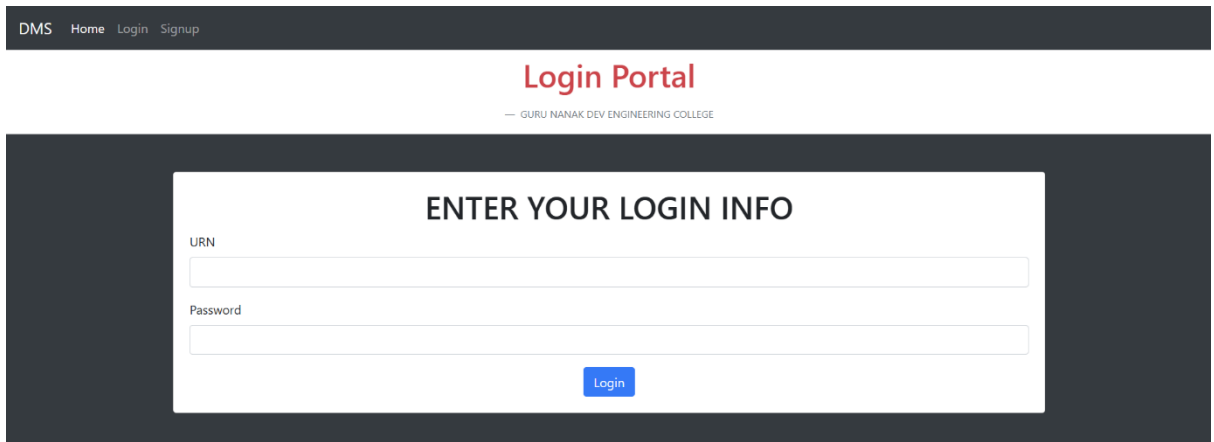
The minimum length of a password should be 8 characters.

Confirm Password

Make sure to type the same password

SignUp

Fig 5.1 – Student Sign Up



The screenshot displays the 'Login Portal' for GURU NANAK DEV ENGINEERING COLLEGE. It features the same dark navigation bar as the sign-up page. The page title 'Login Portal' is in red, with the college name below it. The main content area has a dark background and features a white form titled 'ENTER YOUR LOGIN INFO'. The form includes input fields for 'URN' and 'Password'. A blue 'Login' button is positioned at the bottom right of the form.

DMS Home Login Signup

Login Portal

— GURU NANAK DEV ENGINEERING COLLEGE

ENTER YOUR LOGIN INFO

URN

Password

Login

Fig 5.2 – Student Login

Showing rows 0 - 10 (11 total, Query took 0.0005 seconds)

SELECT * FROM `users`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

	s.no	name	urn	password	dt
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	8	Ranveer	2203932	\$2y\$10\$PzFRZ5KAmNqOzavhED3E6D7fFD52ahuAAYJCsk1q...	2024-04-11 17:02:37
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	9	Vishu	22002233	\$2y\$10\$P86oe3R7b0H2OwfkVA2eRiW6mkvTjwcrmsb21Xhu...	2024-04-11 18:32:26
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	10	Keshav	2203914	\$2y\$10\$Nq8r7hEi38CUKYVoVg7j4NS8OJNW6dDYL3bE6PyA...	2024-04-12 10:09:13
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	12	gourav	2121155	\$2y\$10\$67P6CMoPy6qqwXZLDpZrk.R7GDnUUR0hZbA980zfxv...	2024-04-12 16:12:32
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	13	Harjot	2202266	\$2y\$10\$IzCMXWnG8i8K2.YWunmMue9ic3QZBs0DFsMW3Oo5oQ...	2024-04-15 10:09:37
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	14	harman	22334455	\$2y\$10\$2yDYfzBV42JfBLBoBxDZ9.uY8qpMY1JC24Bt2wLJI...	2024-04-15 12:18:06
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	16	harsh	2121156	\$2y\$10\$e2BQw692cKDFX0RWCjY0G0243IfPyb6KNRdTxCHQfL...	2024-04-15 14:26:40
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	17	swagat	2203598	\$2y\$10\$InnpWdaxvQ3LlZKEIFWhOpwQU3vbdrgJ1WTrn9JVZf...	2024-04-15 14:35:14
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	18	Ranveer	2202200	\$2y\$10\$ellHbGooAYN7Uue03TKieuszdjeyg4TksWRXirPQPsL...	2025-02-24 20:42:24
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	19	Ranveer	22222222	\$2y\$10\$dgO2Hjvl.cayp4K1dybOZynCg3MFzcA9SqnRkecu...	2025-04-04 00:14:25
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	20	lanveer	2203599	\$2y\$10\$1Pqmy42sQVNYyweH8eV8OpE1Bb.LPSiewEdTMwTC...	2025-04-04 10:56:01

Check all | With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Fig 5.3 – Student Users

DMS Home Logout

Welcome - 2203599

Welcome to NDA. You are logged in as 2203599. Now Fill The Registration Form [using this link](#).
If you already submit the form then [use this link](#), to download the certificate.

Whenever you need to, be sure to logout [using this link](#).

Fig 5.4 – Student Dashboard

Student Portal Dashboard

STUDENT REGISTRATION FORM

First Name

Last Name

Father Name

Mother Name

College Roll Number

University Roll Number

Course

Department

Email

Fig 5.5 – Document Request Form

Showing rows 0 - 8 (9 total, Query took 0.0004 seconds)

SELECT * FROM `student-registration`

Number of rows: 25 | Filter rows: Search this table | Sort by key: None

sno	fname	lname	fathername	Mothername	CRN	URN	course	department	email	status	dt
20	Ranveer	Singh	father	mother	2121153	2203932	B.tech	IT	Ranveer@gmail.com	rejected	2024-04-12 10:31:49
22	keshav	bubber	father	mother	22112211	22002200	B.tech	IT	keshav@gmail.com	approved	2024-04-12 12:30:18
24	gourav	gourav	father	mother	212122	212155	B.tech	it	gourav@gmail.com	approved	2024-04-12 16:14:13
25	Harjot	Singh	father	mother	22022333	22550022	B.tech	it	Harjot@gmail.com	approved	2024-04-15 10:13:28
27	harsh	singh	father	mother	2121444	2121156	B.TECH	INFORMATIO	harsh@gmail.com	pending	2024-04-15 14:27:48
28	swagat		father	mother	212156	2203598	B.TECH	COMPUTER S	swagat@gmail.com	approved	2024-04-15 14:37:08
29	Ranveer	singh	m	m	2121212121	0	B.TECH	COMPUTER S	RANVEER@GMAIL.COM	pending	2025-04-04 00:15:01
32	Ranveer	singh	m	m	2121212121	22222222	B.TECH	COMPUTER S	RANVEER@GMAIL.COM	pending	2025-04-04 00:23:48
34	tanveer	singh	harwinder singh	maninder kaur	2115192	2203599	B.TECH	COMPUTER S	tanveer@gmail.com	approved	2025-04-04 10:57:20

Query results operations

Fig 5.6 – Document Request Database

DMS Home Login Signup

Teacher Signup Portal

— GURU NANAK DEV ENGINEERING COLLEGE

ENTER YOUR DETAILS

Name:

Department:

Course:

Email:

Username:

Use A Unique Username

Password:

The minimum length of a password should be 8 characters.

Confirm Password:

Make sure to type the same password

Fig 5.7 – Teacher SignUp

DMS
Home
Login
Signup

Teacher Login Portal
— GURU NANAK DEV ENGINEERING COLLEGE

ENTER YOUR LOGIN INFO

Username

We'll never share your username with anyone else.

Password

Login

Fig 5.8 – Teacher Login

DMS
Home
Logout

Welcome - tanveer

Welcome to NDA. You are logged in as tanveer. Now Check The Students List [using this link](#).

Whenever you need to, be sure to logout [using this link](#).

Fig 5.9 – Teacher Dashboard

phpMyAdmin

Recent
Favorites

- New
- dash
- New
- applications
- company_profiles
- interviews
- jobs
- users
- information_schema
- mysql
- performance_schema
- phpmyadmin
- register
- srs
- srs5
- test
- users
- New
- student_registration
- teacher
- users

Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Triggers

Showing rows 0 - 2 (3 total. Query took 0.0005 seconds)

SELECT * FROM `teacher`

Printing | Edit menu | Edit | Explain SQL | Create PHP code | Refresh

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

	s.no	name	branch	course	email	username	password	dt
<input type="checkbox"/>	10	Admin	b.tech	admin	admin@gmail.com	admin	\$2y\$10\$B8MokpbtN2pEw257WbnBvX015dLpmtOot.rEh...	2024-04-12 11:30:29
<input type="checkbox"/>	14	admin	COMPUTER SCIENCE AND ENGINEERING	B.TECH	Khanecmich1@gmail.com	admin0	\$2y\$10\$JMeatV3R5mm.vbU/r46qrc.ZdHm6Lxds0vC1IdmAnd...	2025-03-30 09:29:12
<input type="checkbox"/>	15	tanveer	COMPUTER SCIENCE AND ENGINEERING	B.TECH	tanveer@gmail.com	tanveer	\$2y\$10\$G8lgbaj17VOW2cX1c0pCeiH3RfPt0MRiuxR4FKI...	2025-04-04 10:58:25

☐ Check all | With selected | Edit | Copy | Delete | Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Query results operations

Print | Copy to clipboard | Export | Display chart | Create view

Fig 5.10 – Teacher Database

DMS

[Home \(current\)](#)

[Logout](#)

Student Registered Data

GURU NANAK DEV ENGINEERING COLLEGE

S.No	Name	Email	Action	
27	harsh	harsh@gmail.com	Approve	Reject
29	Ranveer	RANVEER@GMAIL.COM	Approve	Reject
32	Ranveer	RANVEER@GMAIL.COM	Approve	Reject

Fig 5.11 – Document Request List in teacher Dashboard