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

COMPUTER SCIENCE AND ENGINEERING

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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 This prevents confusion and errors that could arise from working with outdated files.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 vrsionTo 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

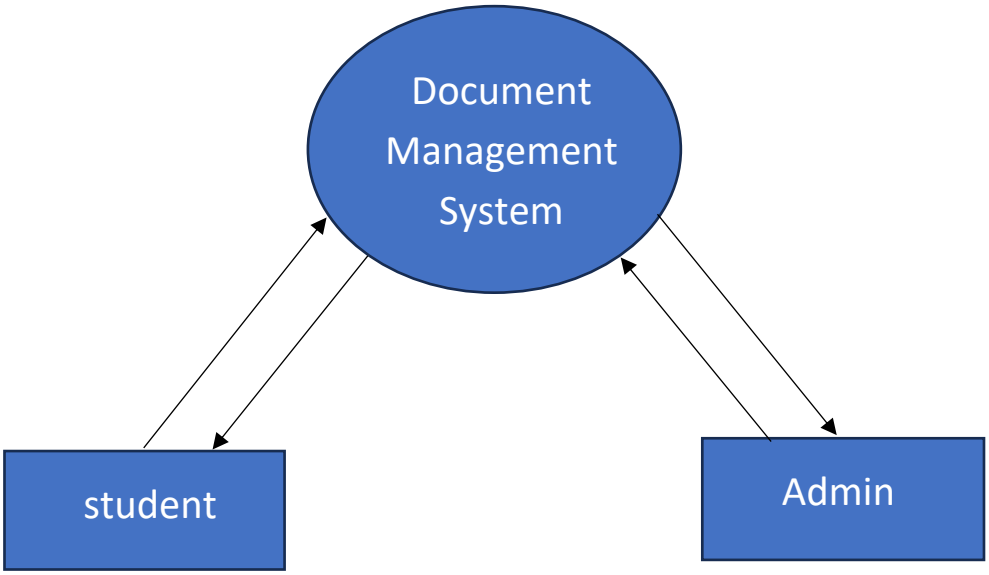

Figure 1:- Block Diagram

5. OUTPUT SCREENS

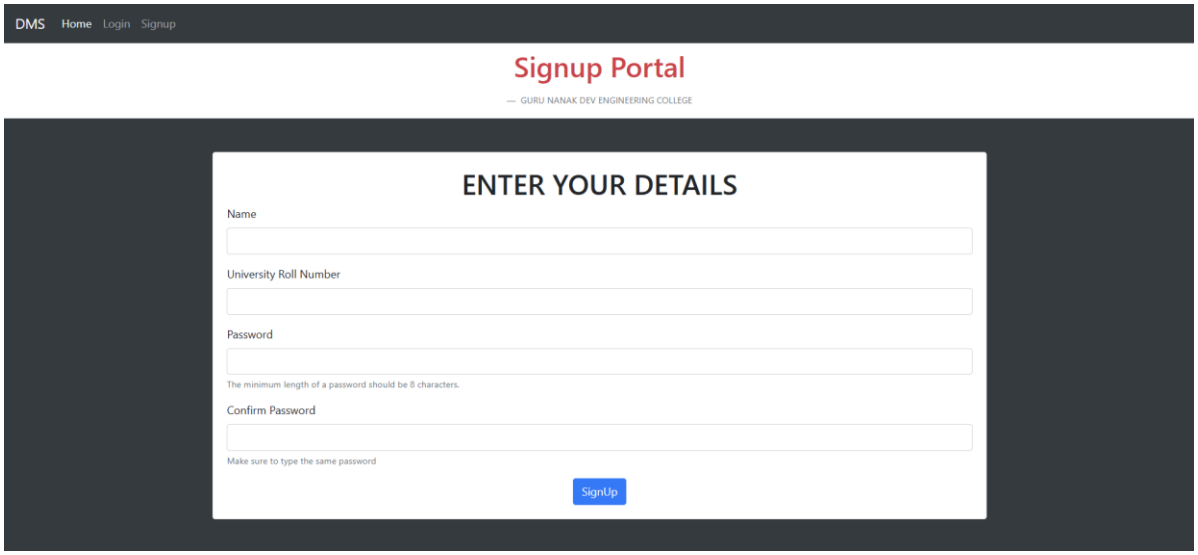

Fig 5.1 – Student Sign Up

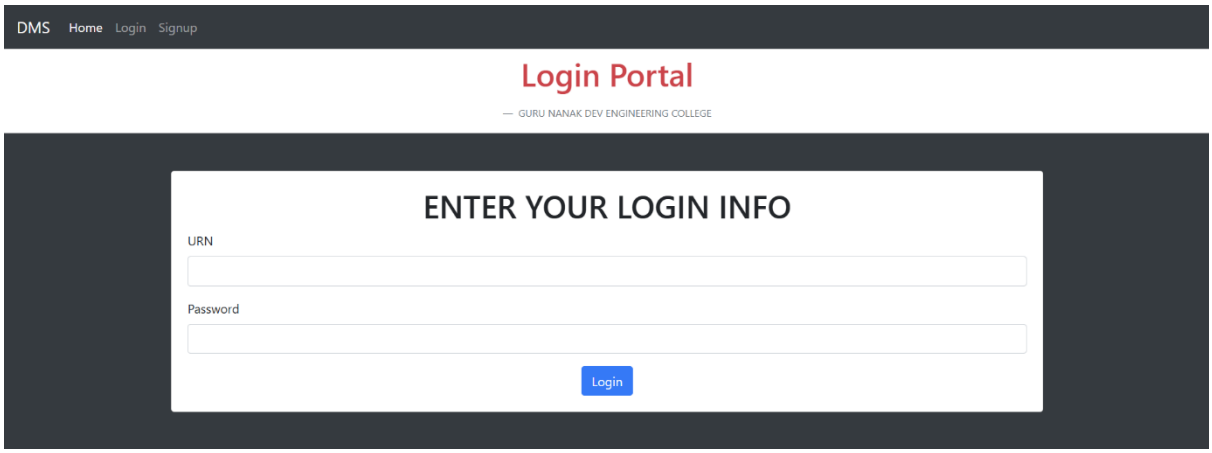

Fig 5.2 – Student Login

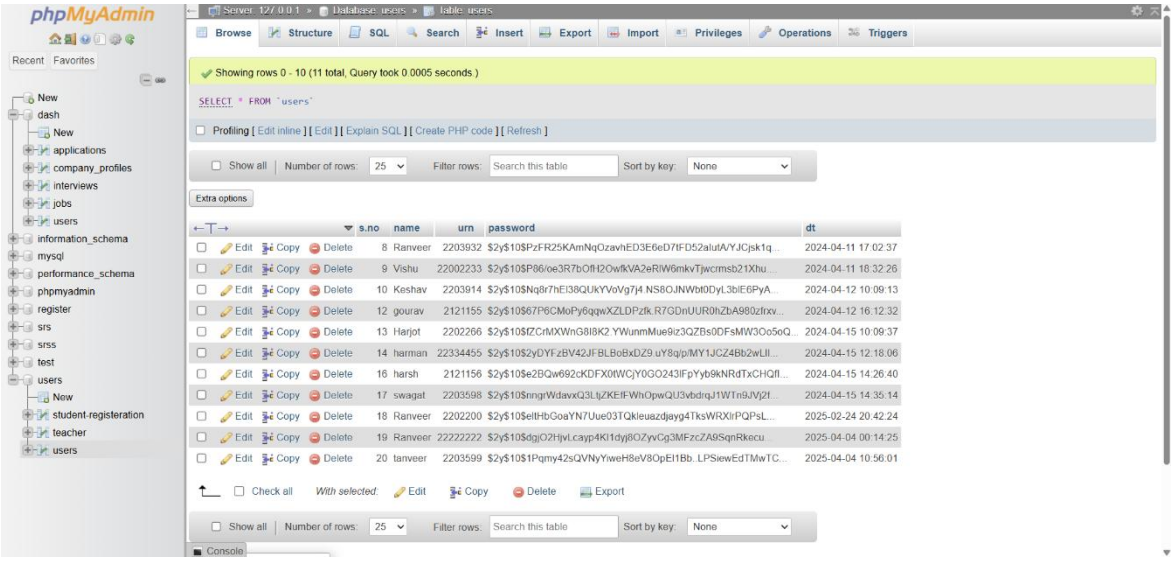

Fig 5.3 – Student Users

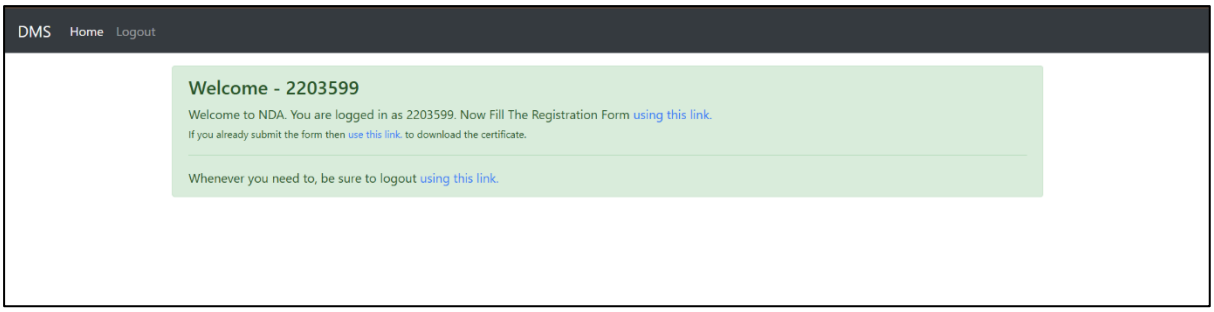

Fig 5.4 – Student Dashboard

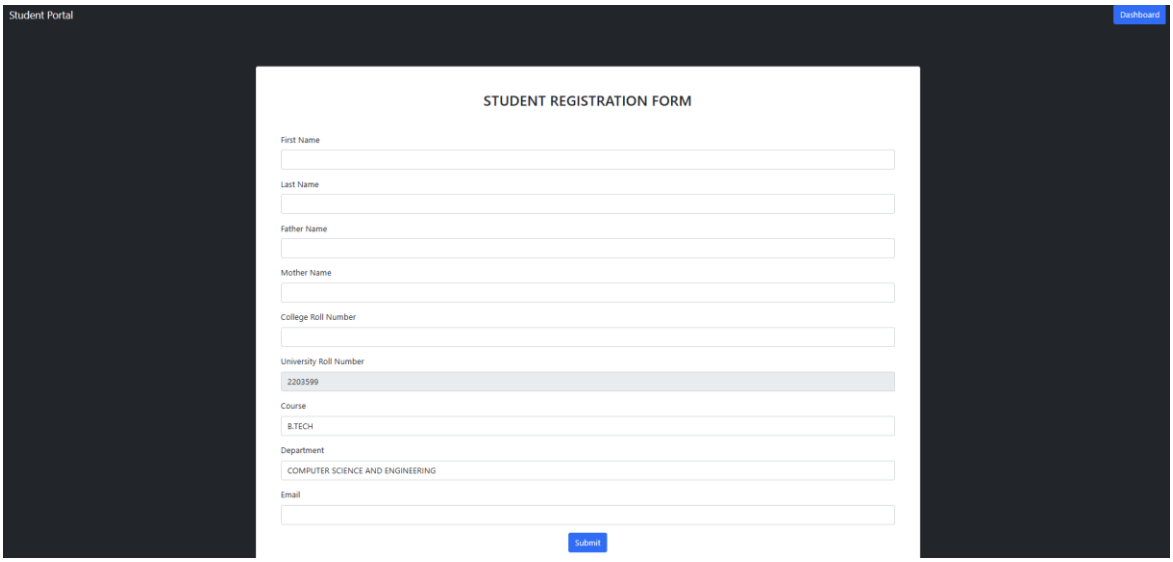

Fig 5.5 – Document Request Form

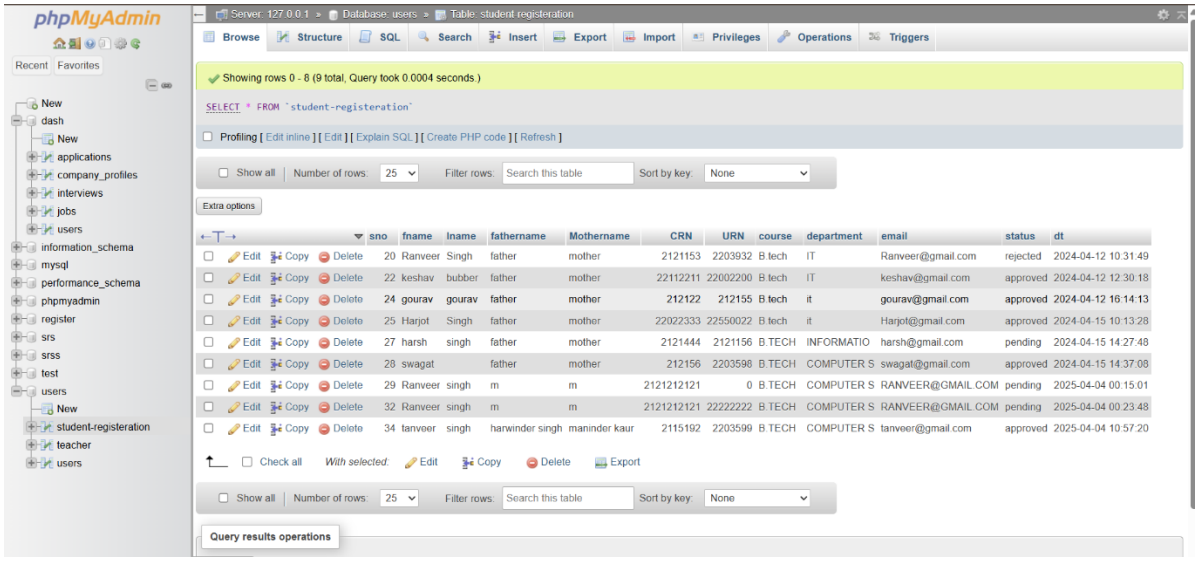

Fig 5.6 – Document Request Database

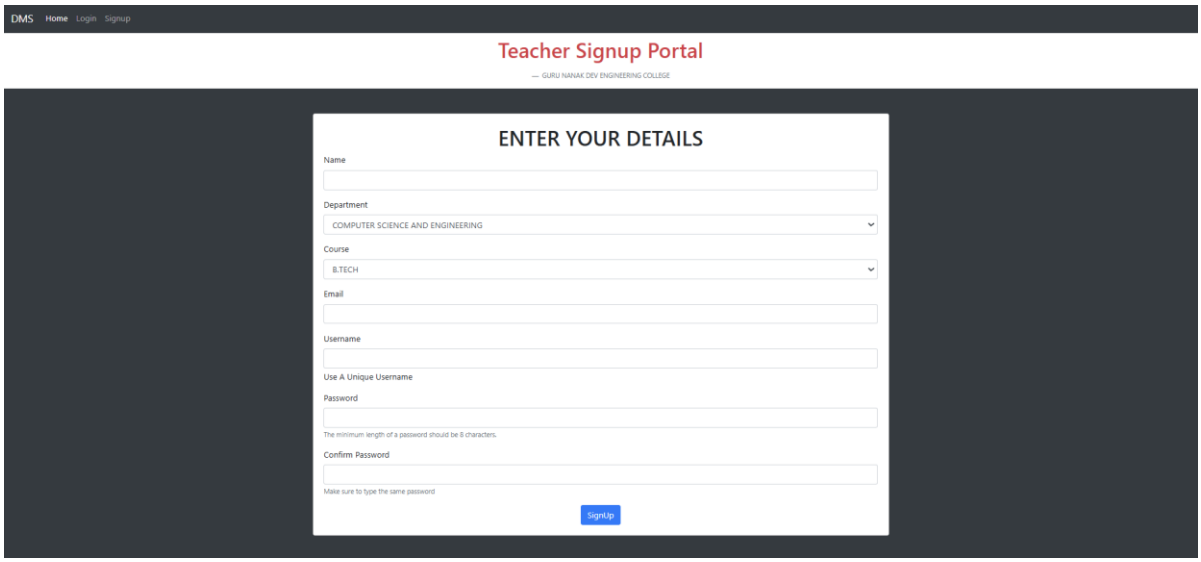

Fig 5.7 – Teacher SignUp

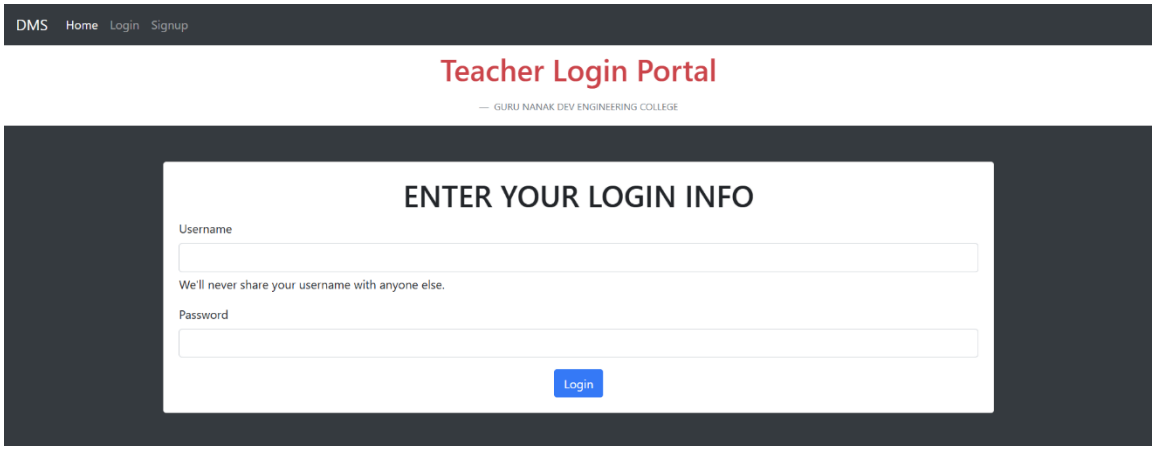

Fig 5.8 – Teacher Login

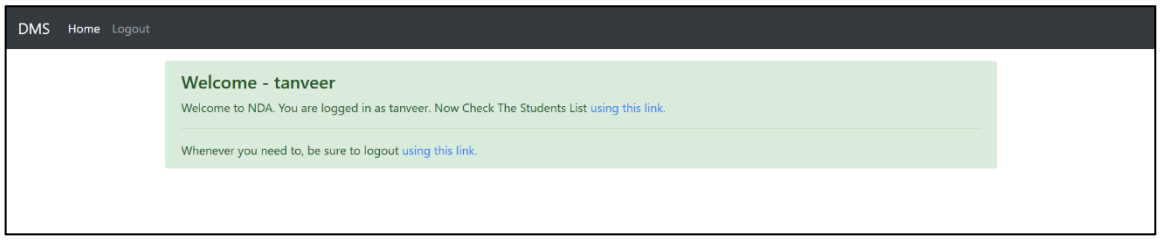

Fig 5.9 – Teacher Dashboard

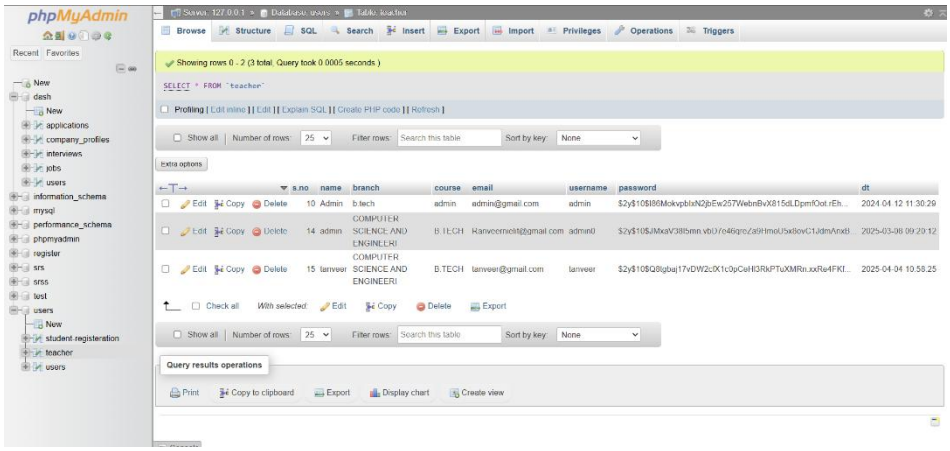

Fig 5.10 – Teacher Database

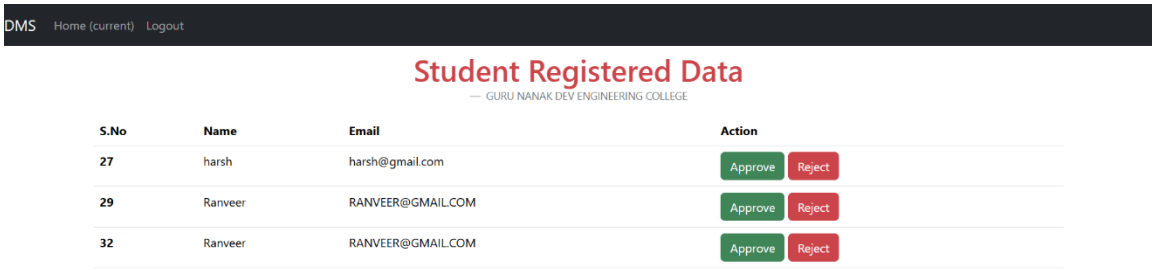

Fig 5.11 – Document Request List in teacher Dashboard