A MINI PROJECT REPORT ON

STUDENT DOCUMENT VAULT

A dissertation submitted in partial fulfillment of

the Requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

in

INFORMATION TECHNOLOGY

Submitted by

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CERTIFICATE

This is to certify that the Project Report entitled **"Student Document Vault"** is a bonafide work done and submitted by **Cheruku Chandana (21B81A1207)**, **Cherka Gayathri Manaswini (21B81A1214)**, **Pallepati Teja Sree (21B81A1258)** during the academic year 2024-2025, in partial fulfillment of requirement for the award of Bachelor of Technology degree in Information Technology from Jawaharlal Nehru Technological University Hyderabad, is a bonafide record of work carried out by them under my guidance and supervision.

Certified further that to my best of the knowledge, the work in this dissertation has not been submitted to any other institution for the award of any degree or diploma.

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DECLARATION

We hereby declare that the project report entitled "**Student Document Vault**" is an original work done and submitted to IT Department, CVR College of Engineering, affiliated to Jawaharlal Nehru Technological University Hyderabad, Hyderabad in partial fulfillment of the requirement for the award of Bachelor of Technology in **Information Technology** and it is a record of bonafide project work carried out by us under the guidance of **Mrs. S Swetha , Assistant Professor, Department of Information Technology.**

We further declare that the work reported in this project has not been submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other Institute or University.

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ABSTRACT

In the fast-paced realm of contemporary world, students face challenges managing academic and professional documents. With the increasing demand for digital solutions, it can be overwhelming for students to navigate through various platforms and tools to upload, store, and verify their documents effectively. Additionally, the college placement cell often struggles with accessing, verifying, and tracking the status of student documents, which is crucial for ensuring students have all necessary documents readily available whenever required. The Student Document Vault, a comprehensive web-based application aims to streamline this process for students and administrators. Key features include document upload, a comprehensive dashboard for verification, a status tracking system, and the ability to download documents whenever required. This application uses ReactJS for a dynamic, interactive single-page frontend with efficient rendering and state management. Node.js and Express form the backend, while MongoDB stores student document details for anytime, anywhere access. This project thus helps students and administrators manage their tasks more efficiently, enhancing the overall preparation process for student placements.

LIST OF FIGURES

1. INTRODUCTION

Student Document Vault is an online web-based application designed to enhance the management and verification of documents for both students and the placement cell. By leveraging modern web technologies, it provides a seamless and efficient platform for handling various document-related tasks. This application addresses the common challenges faced by students in organizing and verifying their documents and aids placement cells in efficiently managing the verification process. Its user-friendly interface and streamlined workflows ensure that both students and placement administrators can easily navigate and utilize its features.

The application simplifies document upload, verification, and tracking through three key modules: User Authentication and Profile Management, Document Management, and Download & Status Tracking. The User Authentication and Profile Management module ensures that only authorized users can access the system, providing secure login and personalized profiles for each student. The Document Management module allows students to upload, store, and organize their documents in a structured manner. Lastly, the Download & Status Tracking module enables students and placement officers to monitor the status of document verification and download verified documents as needed.

With a dynamic single-page frontend built using ReactJS, the platform offers a responsive and interactive user experience. The robust backend, developed with Node.js and Express, ensures efficient processing and handling of requests. By utilizing MongoDB as the database, the application provides a scalable and flexible solution for storing and retrieving documents. This combination of technologies ensures that the platform can handle a large number of users and documents while maintaining high performance and security standards.

This innovative solution significantly enhances the efficiency of managing documents, aiding better preparation for student placements and reducing the administrative workload for placement cells. Students can focus on their placement preparation without worrying about document-related issues, while placement officers can streamline their verification processes. The anytime, anywhere access to documents ensures that both students and placement cells can manage and verify documents at their convenience. Overall, the Student Document Vault offers a comprehensive and efficient solution for document management and verification in the context of student placements.

1.1 Literature Survey

H. Baban and S. Mokhtar: "Online Document Management System for Academic Institutes," 2010 3rd International Conference on Information Management, Innovation Management and Industrial Engineering, 2010, pp. 315-319, doi: 10.1109/ICIII.2010.555.

- It explores solutions for managing academic documents online. It emphasizes centralized management, security, user access control, and compliance, addressing challenges similar to those faced by the Student Document Vault. The insights from this paper align with the goals of the Student Document Vault, providing valuable guidance for designing an effective online document management system for educational institutions.

Y. Wang, B. -y. Sun, and F. Cheng: "Electronic-Document-Based Management Process Model for Image Archives in Universities," 2011 International Conference of Information Technology, Computer Engineering and Management Sciences, 2011, pp. 57-60, doi: 10.1109/ICM.2011.338.

- The work explores efficient management of academic image archives through a centralized system, highlighting secure storage and easy retrieval. Similar to the Student Document Vault, it focuses on centralized management but is limited to image archives. The Student Document Vault expands on these principles, offering features like real-time status tracking and comprehensive dashboards for a broader document management scope, tailored to both students and placement cells.

T. Krishna, R. K. Thakur, and D. Kumar: "Cost Effective Document Repository Management," 2006 1st International Conference on Digital Information Management, 2007, pp. 344-350, doi: 10.1109/ICDIM.2007.369221.

- The paper discusses methods to manage document repositories while minimizing costs. It focuses on optimizing resources and maintaining document access efficiently. The Student Document Vault expands on this by providing advanced features for centralized management, secure handling, and user access control.

J. D. F. Miñon, C. M. A. Lim, J. A. L. Morano, R. F. Fajutagana, and B. S. Fabito: "An Intranet-Based Document Management and Monitoring System Framework: A Case for the National University Quality Management Office," 2016 IEEE Region 10 Conference (TENCON), 2016, pp. 2262-2267, doi: 10.1109/TENCON.2016.7848431.

- It presents a framework for managing and monitoring documents within a university setting. It emphasizes the use of an intranet-based system to ensure effective document oversight and quality management. The Student Document Vault enhances this by offering a web-based platform with broader accessibility, secure document storage, and advanced tracking features.

Nadeem, Muhammad Haroon Yousaf, and Hafiz Adnan Habib: "Management Information System for Documents Archiving and Organization Security," 2010 3rd International Conference on Advanced Computer Theory and Engineering (ICACTE), 2010, pp. V6-1-V6-4, doi: 10.1109/ICACTE.2010.5579353.

- The paper discusses secure document archiving and management within organizations, emphasizing document security and organizational efficiency. Unlike the Student Document Vault, which includes features for student-specific document management and tracking, this paper focuses more broadly on document security without specialized functions for educational contexts or student needs.

2. SOFTWARE REQUIREMENT SPECIFICATIONS

2.1 Functional Requirements:

User Management

Registration

The registration process allows new users to create an account on the platform. This involves collecting necessary information such as the student's name, email address, and password. The system validates the entered data to ensure it meets the required format and criteria before creating a user profile in the database. This step is crucial to ensuring that only legitimate users gain access to the platform.

Account Activation

After successful registration, the system sends an activation link to the registered email address. Users must click this link to activate their account, which confirms the validity of the provided email address. This two-step verification process enhances security by ensuring that only users with access to the provided email can activate the account. Once activated, the account status is updated in the database, allowing the user to proceed to the login phase.

Login and Authentication

Users can access their accounts by logging in with their registered email and password. The authentication process involves verifying the credentials against the database records. If the credentials are correct, the user is granted access to their personalized dashboard. This process includes security measures such as password encryption and may also involve multi-factor authentication (MFA) to further protect user accounts from unauthorized access.

Document Management

Upload

The document upload feature allows users to add documents to the platform. Users can select files from their local storage and upload them to the system. The platform supports various document formats and ensures that the uploaded files meet predefined criteria such as file size and type. Once uploaded, the documents are stored securely in the database and associated with the user's profile, making them accessible for future reference and verification.

Download

Users can download their uploaded documents at any time. This feature ensures that students have

continuous access to their important documents, even if they need to retrieve them outside the platform. The system provides a user-friendly interface for selecting and downloading documents, ensuring that files are easily retrievable in their original format and quality.

Re-upload

In cases where a document needs to be updated or corrected, users can re-upload the document. This feature allows users to replace an existing document with a new version. The system ensures that the most recent version of the document is stored, and the previous versions can be archived or deleted as per the system's configuration. This functionality is crucial for maintaining up-to-date and accurate records.

Administrative Features

View and Download Documents Administrative users, such as placement officers, have the ability to view and download documents uploaded by students. This access is essential for the verification process, enabling administrators to review the documents and ensure they meet the required standards. The system provides tools for administrators to search and filter documents, making it easier to manage large volumes of files efficiently.

Status Tracking

The status tracking feature allows both students and administrators to monitor the progress of document verification. Each document is assigned a status (e.g., pending, verified, rejected) that reflects its current state in the verification process. Users can view the status updates in real-time, providing transparency and keeping them informed about the verification process. Administrators can update the status as they review and verify documents, ensuring that students are always aware of their document's standing.

2.2 Non-Functional Requirements:

Usability

Usability refers to the ease with which users can interact with the system. The Student Document Vault must provide a user-friendly interface that is easy to navigate, even for users with limited technical skills. This includes intuitive menu structures, clear instructions, and responsive design that adapts to various devices, including desktops, tablets, and smartphones. The goal is to minimize the learning curve and ensure that users can efficiently perform tasks such as uploading documents, checking

verification status, and managing their profiles. Comprehensive help guides and tutorials can further enhance usability by providing users with the necessary support to use the system effectively.

Security

Security is critical for a platform handling sensitive documents and personal information. The system must implement robust security measures to protect data from unauthorized access, breaches, and other cyber threats. This includes secure authentication mechanisms such as password encryption, multi-factor authentication, and secure communication channels. Additionally, the platform should adhere to data protection regulations to ensure compliance with legal standards. Regular security audits, vulnerability assessments, and the use of firewalls and intrusion detection systems are essential practices to maintain a secure environment.

Intuitive Design

Intuitive Design focuses on creating an interface that is logical and straightforward, enabling users to achieve their goals with minimal effort. The design should follow best practices in user experience (UX) and user interface (UI) design, ensuring consistency in layout, colors, fonts, and interactive elements. Key functionalities should be easily accessible, and the system should provide immediate feedback to user actions to avoid confusion. For example, clear visual cues and error messages can guide users through processes such as document uploads and form submissions. An intuitive design reduces the likelihood of user errors and enhances overall satisfaction with the system.

Scalability

Scalability ensures that the system can handle an increasing number of users, documents, and transactions without compromising performance. The architecture of the Student Document Vault must be designed to support growth, including the ability to add new features and expand storage capacity as needed. This can involve using scalable technologies such as cloud-based services, distributed databases, and load balancing to manage traffic efficiently. Scalability also means maintaining fast response times and reliability, even as the user base expands, ensuring that the system remains efficient and effective under varying loads.

2.3 System Specifications

Hardware Requirements

Processor: Intel Core i5 or higher.

RAM: 8GB or more.

Storage: 500 GB HDD or higher.

Internet Connectivity: Broadband internet connection.

Software Requirements

Operating System: Windows 10, macOS or Linux

Web Browser: Google Chrome, Mozilla Firefox, Microsoft Edge, or Safari

Node.js: Version 10.16.0 or higher.

NPM: Version 6.9.0 or higher.

ReactJS: Version 16.8.6 or higher.

Firebase: Version 9.

Express.js: Version 4.16.0 or higher.

Git: Version 2.17.0 or higher.

Visual Studio Code.

3. DESIGN

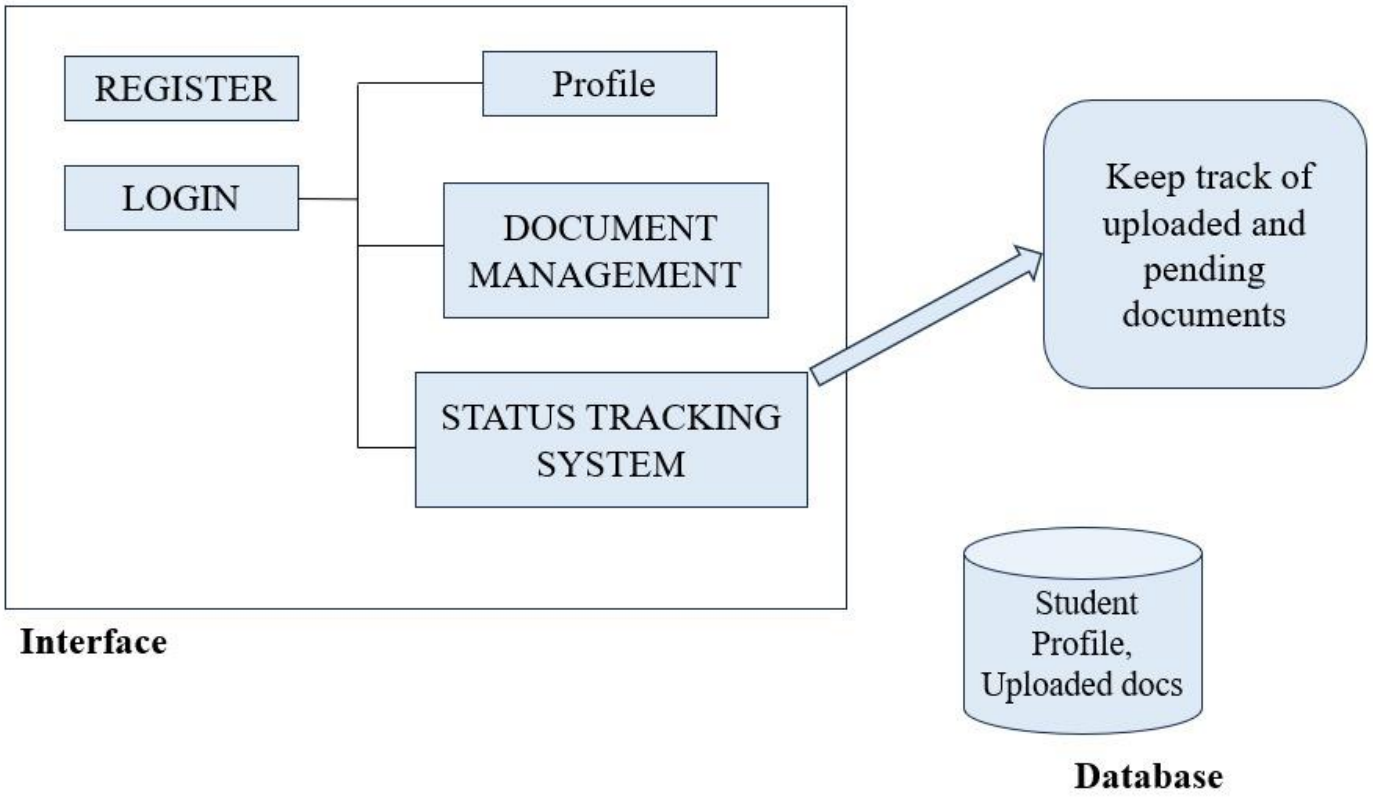

Fig.3.1 *Architectural Design*

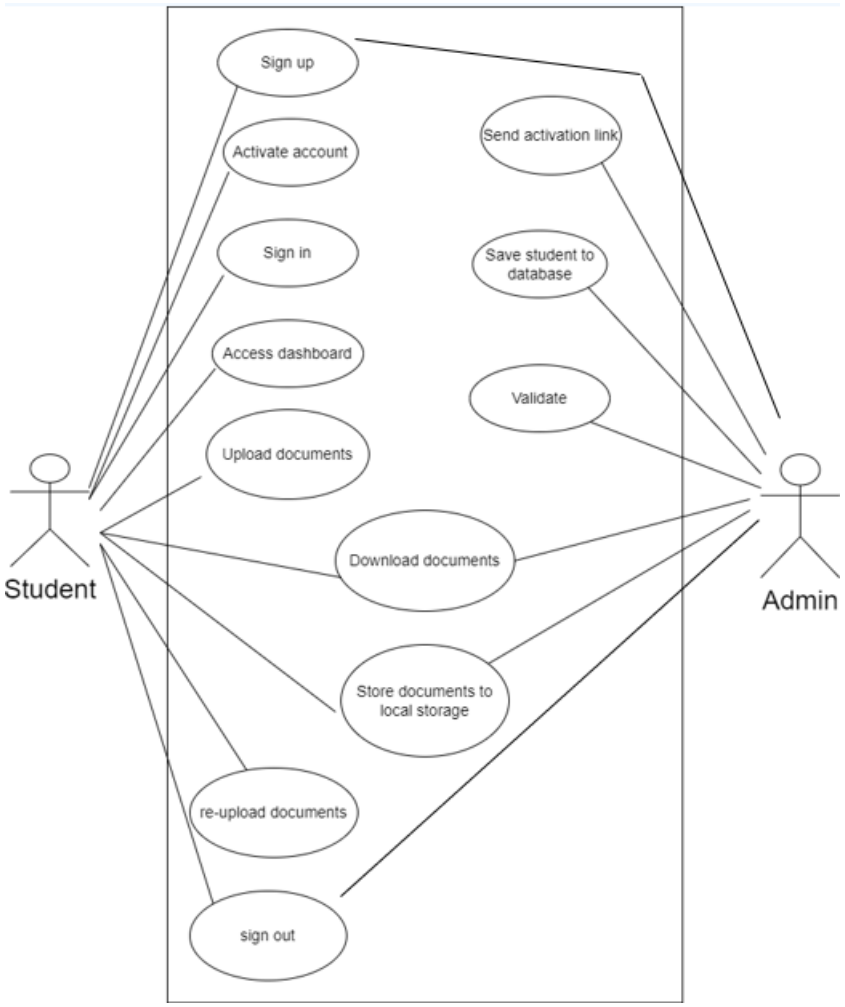

Fig.3.2 *Use Case Diagram*

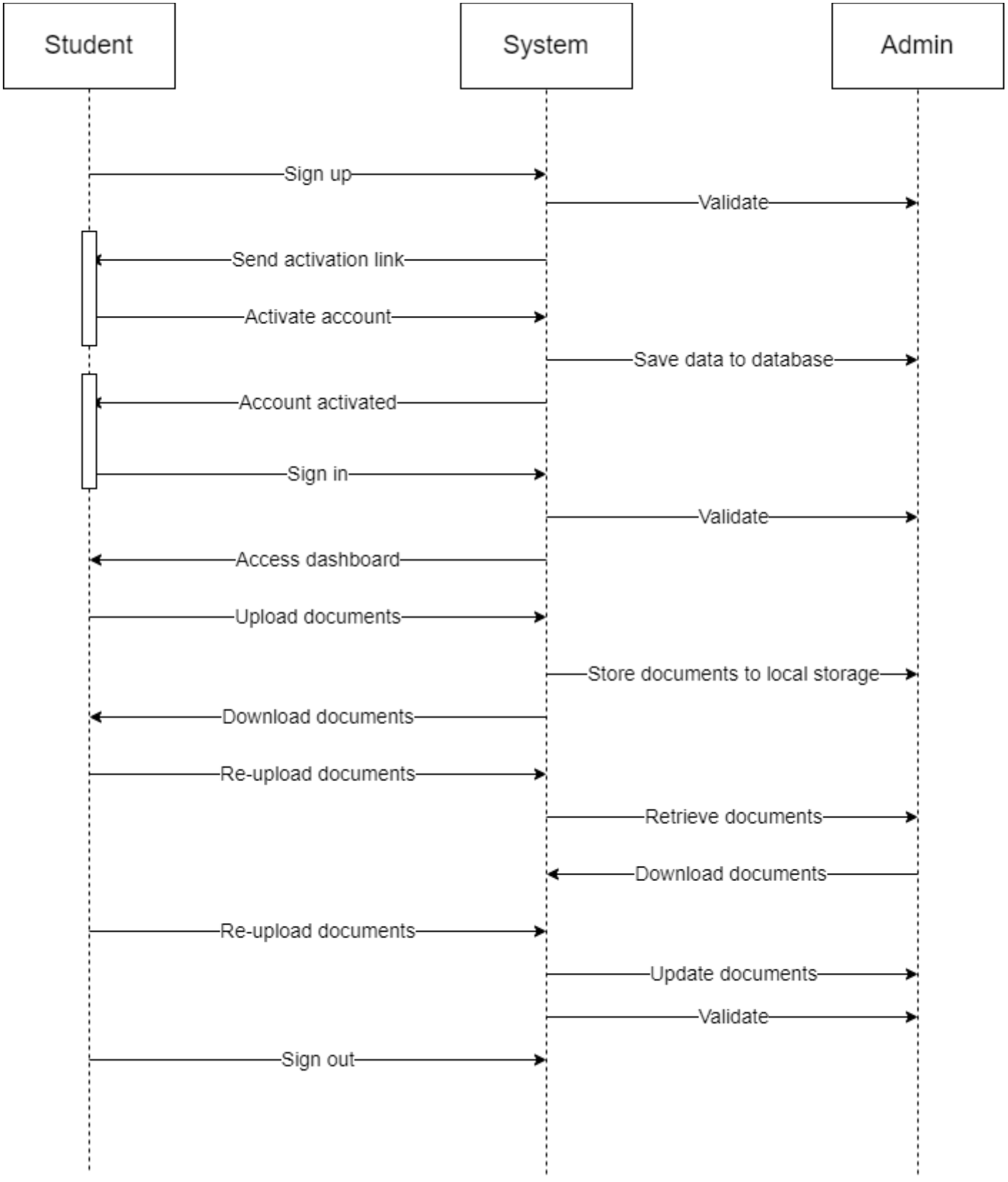

Fig.3.3 *Sequence Diagram*

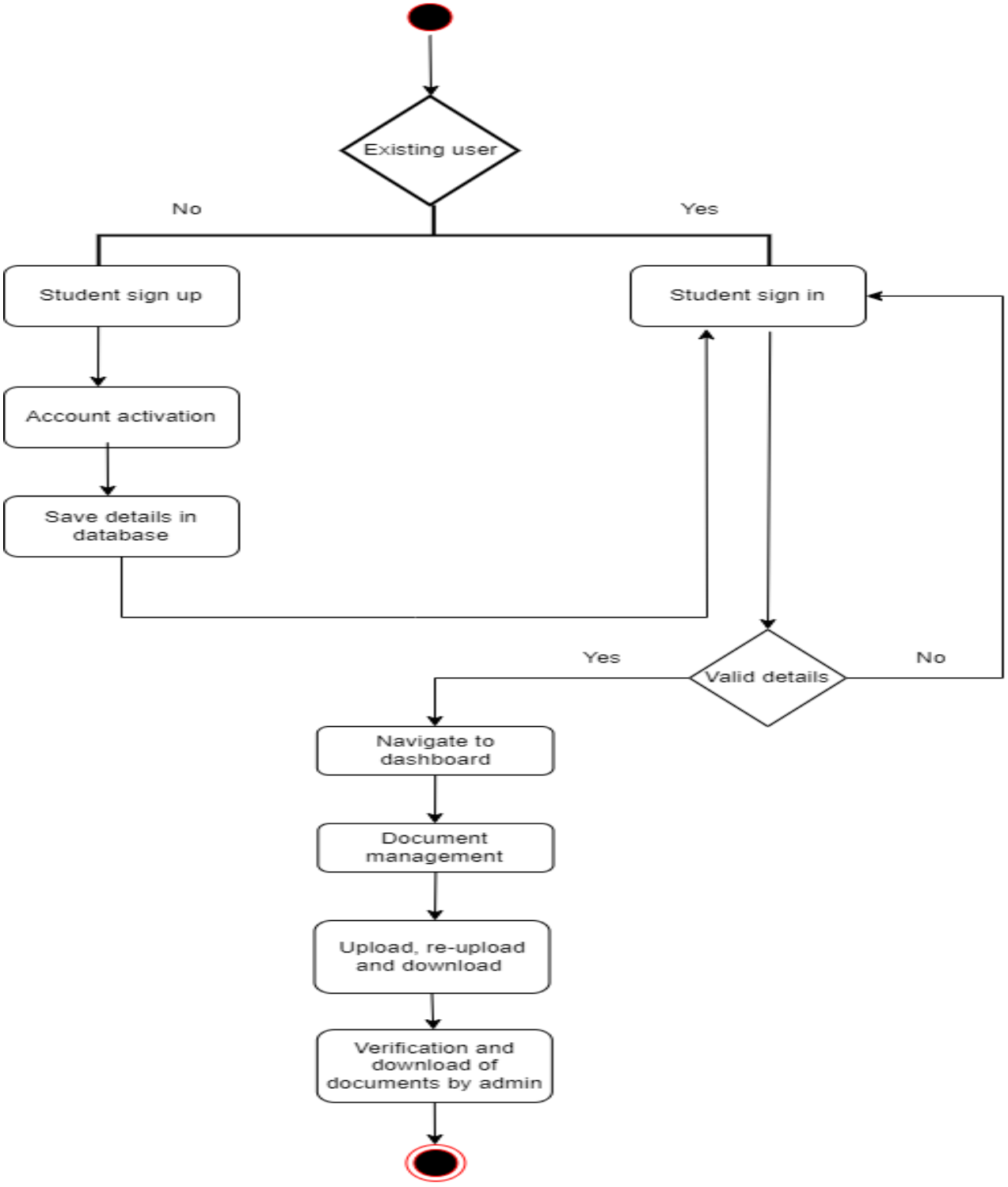

Fig.3.4 *Activity Diagram*