

Knowledge Sharing Platform

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ABSTRACT: This project is about developing a Knowledge Sharing Platform using the MERN stack (MongoDB, Express.js, React.js, and Node.js). The main goal of this project is to make it easy for users to share and access useful information online. The platform allows users to post files, read content shared by others, and communicate through comments. It includes features like login, registration, search, and content categorization. The system is simple, secure, and easy to use. Using the MERN stack makes the platform fast, reliable, and easy to maintain.

I. INTRODUCTION

In the digital age, sharing academic resources effectively is crucial for enhancing learning outcomes. Traditional learning management systems often lack flexibility and peer-to-peer interaction. The proposed Knowledge Sharing Platform, built using the MERN Stack (MongoDB, Express.js, React.js, Node.js), aims to bridge this gap by enabling seamless academic resource sharing between faculty and students, while supporting role-based access and interactive discussions.

II. LITERATURE SURVEY FOR PROBLEM IDENTIFICATION AND SPECIFICATION

Literature Survey

1. Knowledge Sharing Between Higher Educational Institution: Evolution Of A Transfer Platform

Claudia Doering¹, Holger Timinger: The paper presents a platform for knowledge and technology transfer processes and relevant information for higher educational institutions (HEIs). Nowadays knowledge transfer or third-mission activities are daily business for universities.

Nevertheless, they often lack internal standardized processes and procedures. Every HEI tends to establish their own way of efficiently handling transfer activities, without sharing their knowledge with other HEIs. The presented platform outlines standardized processes with knowledge from several HEIs, presented in digitized form. The processes and the platform were evaluated with use cases and a standardized user experience questionnaire (UEQ).

2. Knowledge Sharing among University Students: Current Practice and Perspectives

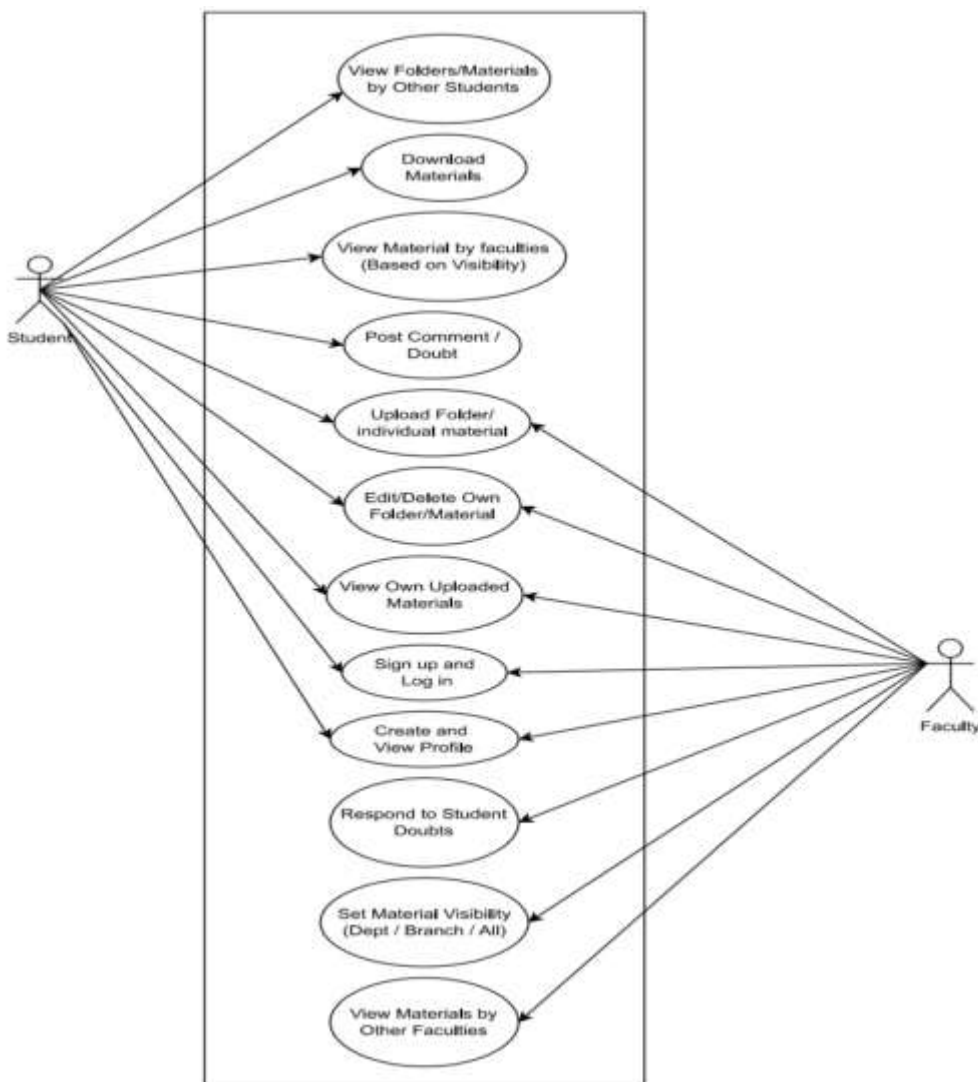
Tereza MICHALOVÁ : Knowledge management and the process of knowledge-sharing gained even greater importance last few years due to the distance cooperation environment. A specific area within the topic is sharing of knowledge between university students as this approach and experience can be further reflected in their future

employment. The paper aims to bring a literature review to analyse university students' knowledge-sharing behaviours and patterns and to test the findings on primary data of a selected group of university students. For the data collection.

Project Objectives

1. Develop a secure web platform for academic content sharing.
2. Enable role-based authentication for faculty and students.
3. Allow uploading of various materials (PDFs, PPTs, videos, links) with metadata.
4. Implement granular access control (faculty-only, all students, or specific branches/classes).
5. Facilitate student contributions visible only to other students.
6. Enable discussion forums for collaborative learning under each resource.

III. Block Diagram



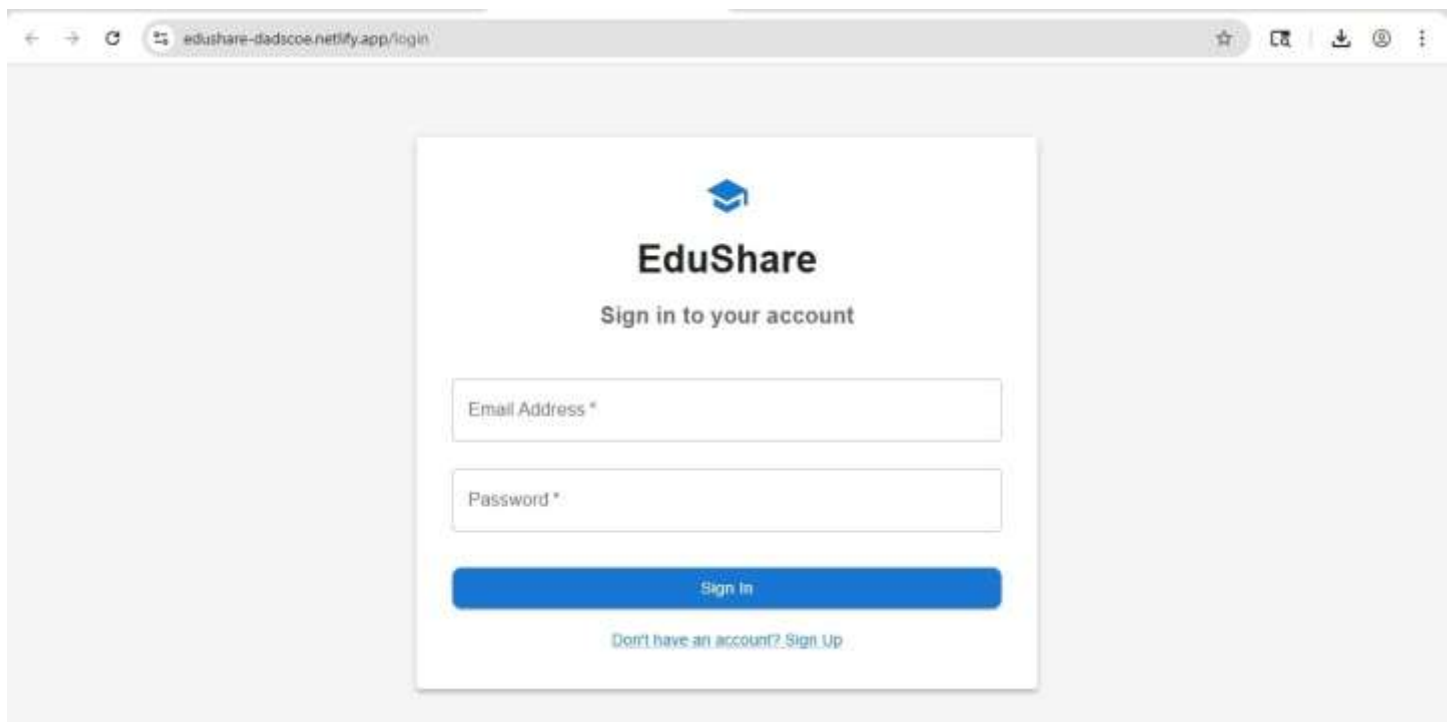
Methodology:-

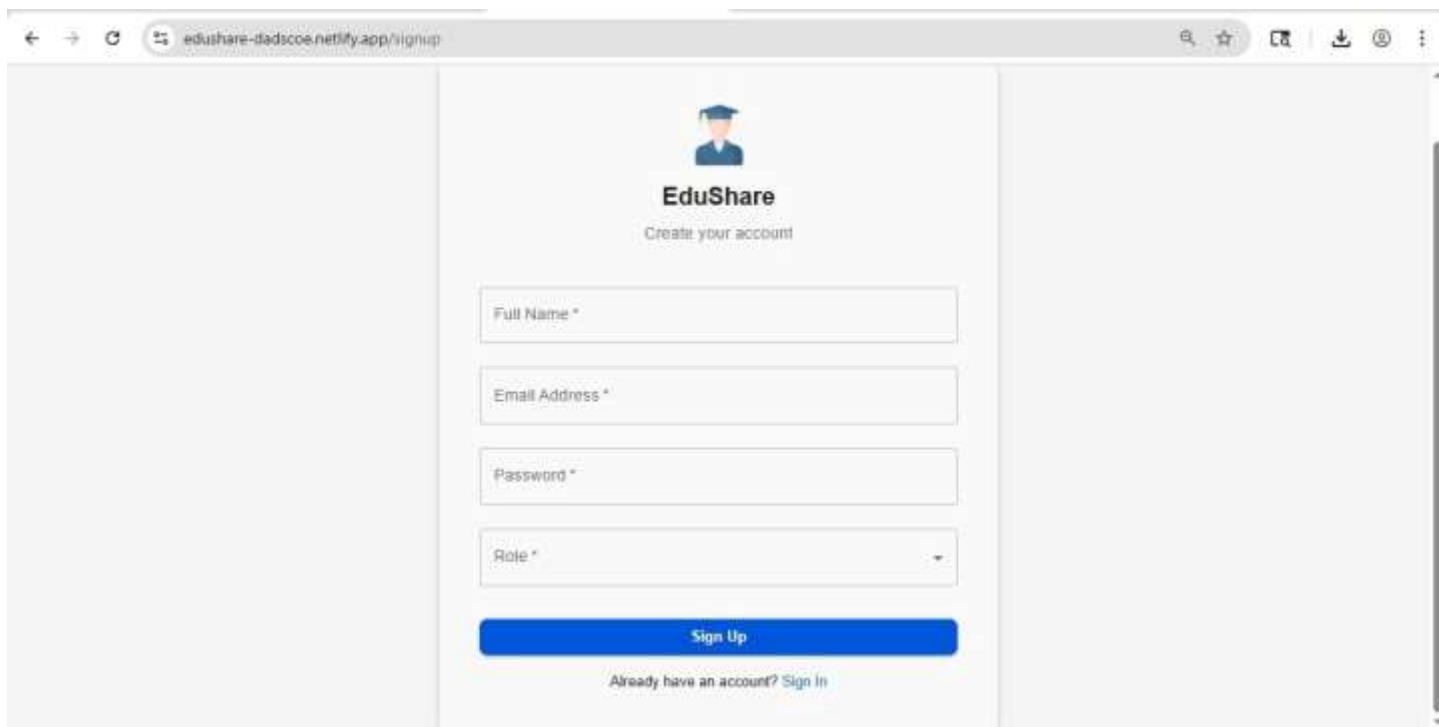
The Knowledge Sharing Platform is designed using the MERN stack for both front-end and Back-end development. The system is divided into three main parts: Frontend, Backend, and Database. Frontend (React.js): The user interface is created using React.js. It allows users to register, Log in, post content, and read information shared by others. Backend (Node.js and Express.js): This part manages the logic of the application. It connects The frontend to the database and handles user requests. Database (MongoDB): This stores user details, posts, and comments in a simple and Organized way.

V. RESULT

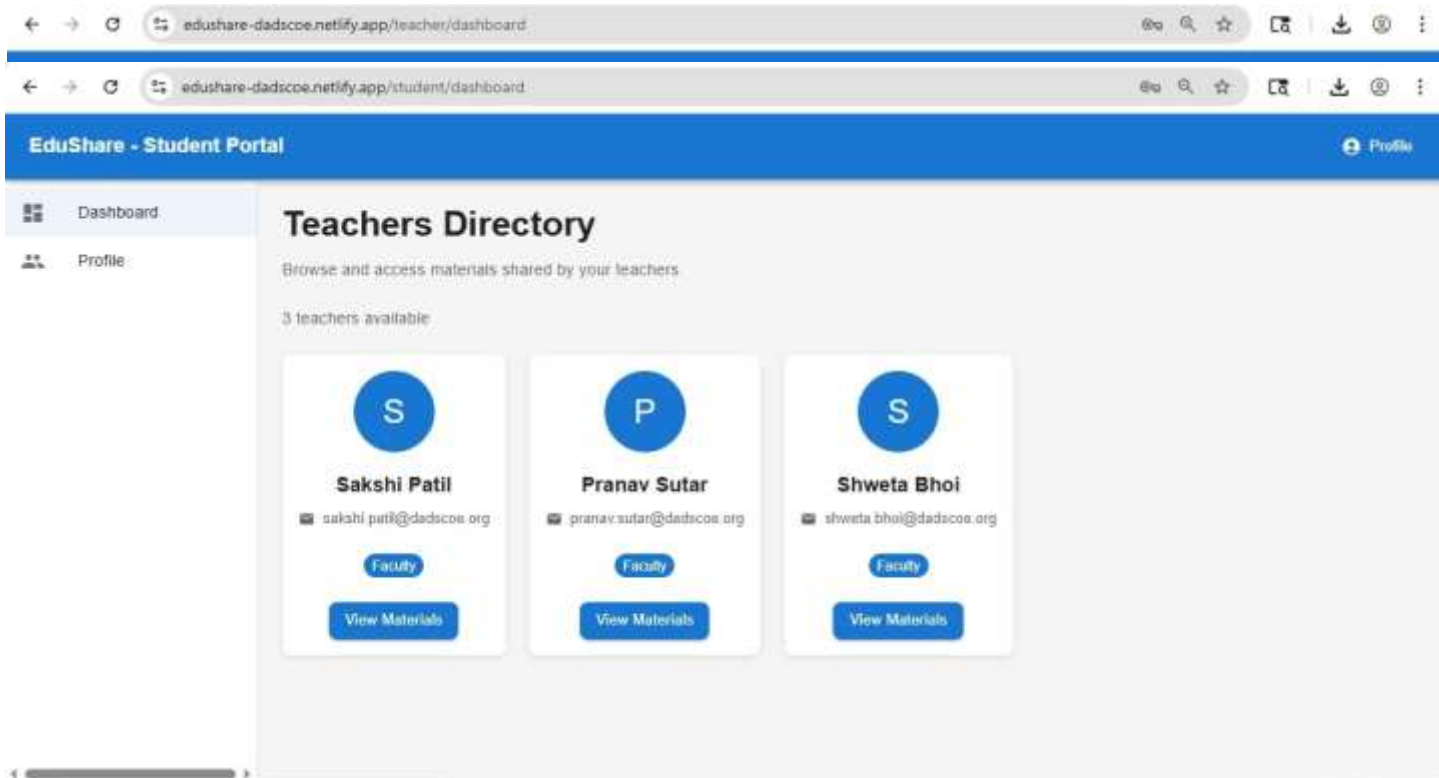
The system was developed and tested successfully. Users can register, log in, and share knowledge easily. The platform's simple interface makes it easy to understand and use. The search feature helps users find the right information quickly. User authentication ensures only registered users can post or edit content.

VI. PROJECT SNAPSHOT





The image shows a web browser window with the URL `edushare-dadscoe.netlify.app/signup`. The page features the EduShare logo (a graduation cap icon) and the text "EduShare Create your account". Below this, there is a sign-up form with the following fields: "Full Name *", "Email Address *", "Password *", and "Role *". A blue "Sign Up" button is positioned below the form. At the bottom of the form, there is a link that says "Already have an account? Sign In".



The image shows a web browser window with the URL `edushare-dadscoe.netlify.app/teacher/dashboard`. The page is titled "EduShare - Student Portal" and has a "Profile" link in the top right corner. On the left, there is a sidebar with "Dashboard" and "Profile" options. The main content area is titled "Teachers Directory" and includes the text "Browse and access materials shared by your teachers" and "3 teachers available". Below this, there are three teacher profiles, each with a circular icon, name, email address, role, and a "View Materials" button.

Teacher Name	Email Address	Role	Action
Sakshi Patil	sakshi.patil@dadscoe.org	Faculty	View Materials
Pranav Sutar	pranav.sutar@dadscoe.org	Faculty	View Materials
Shweta Bhoi	shweta.bhoi@dadscoe.org	Faculty	View Materials

VII. CONCLUSION

The Knowledge Sharing Platform helps users share and access knowledge in an organized way. It improves teamwork, learning, and communication. The use of the MERN stack made the system fast, flexible, and easy to maintain. The project met its goals and provided a good experience for users.

In the future, more features can be added like file uploads, chat system, notifications, and AI-based suggestions. These updates will make the platform more interactive and useful for students and professionals.

VII. REFERENCE

- 1.<https://www.scitepress.org/Papers/2023/121798/121798.pdf>
- 2.<https://share.google/hvvknfUcVMXdUWt7J>
- 3.<https://ScienceDirect.com>
- 4.<https://share.google/GUggVZI44uD1QwBS9>
- 5.<https://share.google/p4R7CCD4HCZ6Ygn32>