



Academy of
Engineering

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

A REAL-TIME PROJECT MANAGEMENT APP

CN-Project

GUIDED BY-
SANTOSH WARPE SIR



GROUP MEMBERS:

Ramani Vemula [202201040011]

Amrik Bhadra [202201040021]

Shivshankar Ghyar [202201040031]

INDEX

- Introduction
- Problem Statement and Project Objective
- Technologies used
- Project features and overview
- Real-time collaboration and socket programming
- Impact and Conclusion



INTRODUCTION

- It is a platform designed for group coding project collaboration.
- Allows users to create project rooms, invite team members, and collaborate in real-time.
- Features include file sharing, and a real-time collaborative coding workspace.
- Enhances productivity by centralizing the users, file management, and coding tasks in one place.



PROBLEM STATEMENT & PROJECT OBJECTIVE



designed by freepik

PROBLEM

- No single platform for teams to work together on coding projects in real time.
- Teams use different tools for chat, file sharing, and coding, which makes things messy and inefficient.

OBJECTIVE

- It combines chat, file sharing, and coding into one easy-to-use platform.
- Users can create project rooms and invite members with unique codes.
- Keeps files and communication updated in real time for better teamwork.

TECHNOLOGIES USED

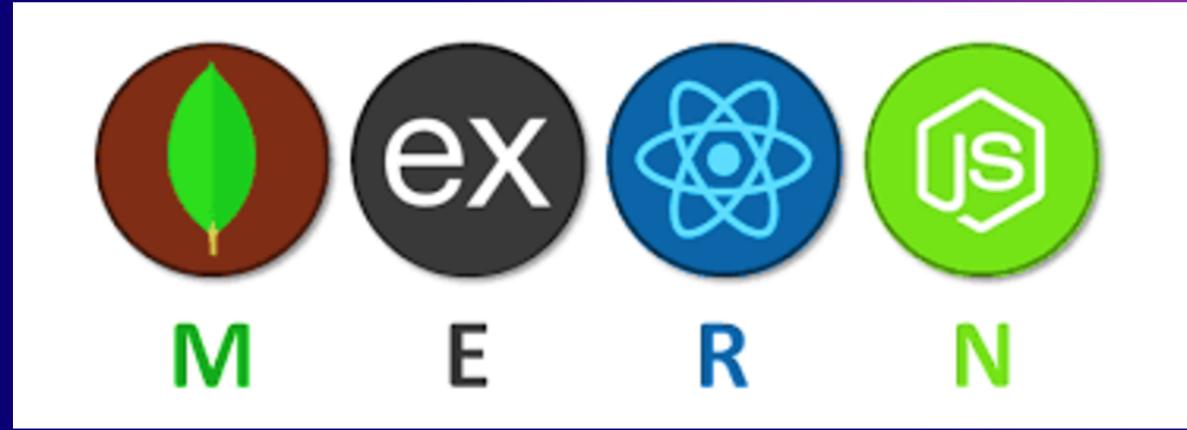
- **Frontend:** React.js
- **Backend:** Node.js and Express.js
- **Database:** MongoDB
- **Real-time Communication & Collaboration:** Socket.io
- **Version Control:** Git

FUNCTIONAL MODULE

- User Authentication (Login/Signup)
- Project Dashboard (creating/joining project rooms)
- Real-Time Collaborative Coding
- Notifications (Real-time updates)

NON-FUNCTIONAL MODULE

- Security (User authentication, data encryption)
- Scalability (Handling more users and project rooms)
- Usability (User-friendly interface)
- Data Storage (MongoDB for persistent storage)



PROJECT FEATURES AND OVERVIEW



LOGIN/SIGNUP

- User Registration: Secure signup with email verification to confirm account authenticity.
- Secure Login: Encrypted login process protects user credentials and data.
- Password Management: Safe password recovery options through email for user security.



DASHBOARD

- Project Overview: Displays a list of projects the user has joined for quick access.
- Create New Room: Users can easily create new project rooms to start collaboration.
- Join Existing Rooms: Option to join existing project rooms using unique codes or invitations.

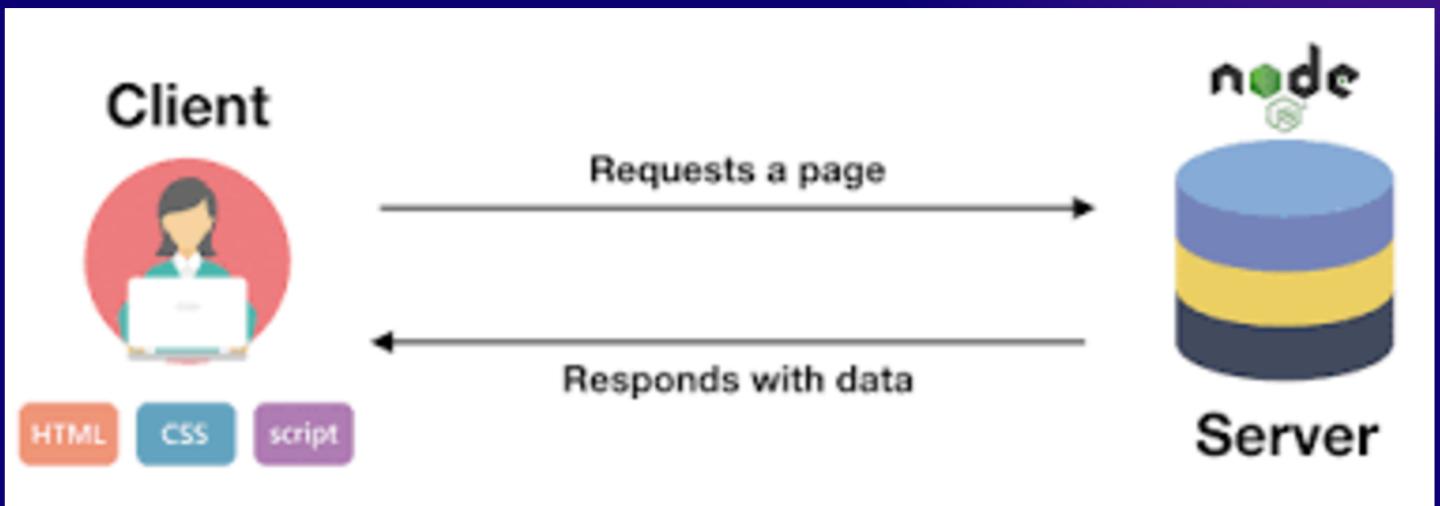


PROJECT ROOM:

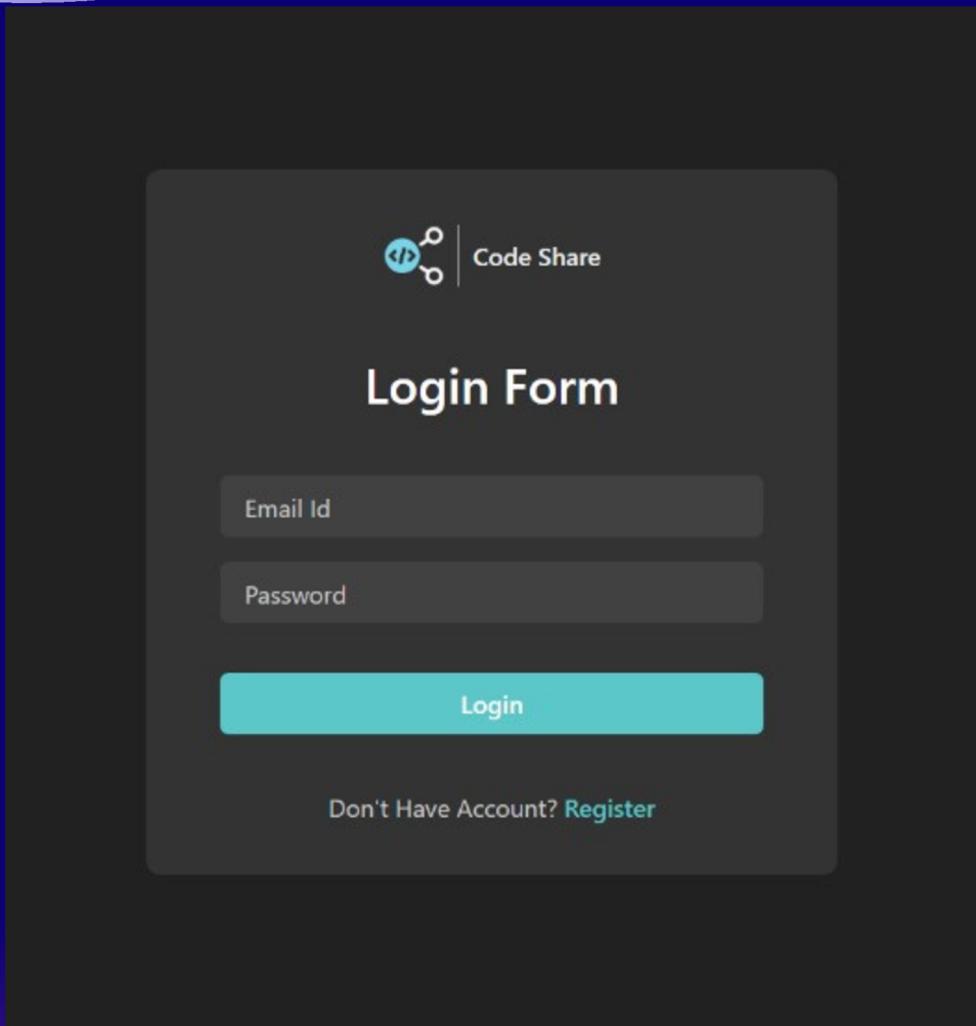
- Project title, description, room code.
- File sharing and management.
- Real-time collaborative coding workspace.

REAL-TIME COLLABORATION AND SOCKET PROGRAMMING

- **Socket.io Enables:**
 - Real-time collaborative coding and file updates.
 - Enhanced user experience with smooth, lag-free interactions.
 - Persistent connection for continuous communication without refresh.
- Ensures minimal delay in syncing project activities across team members.

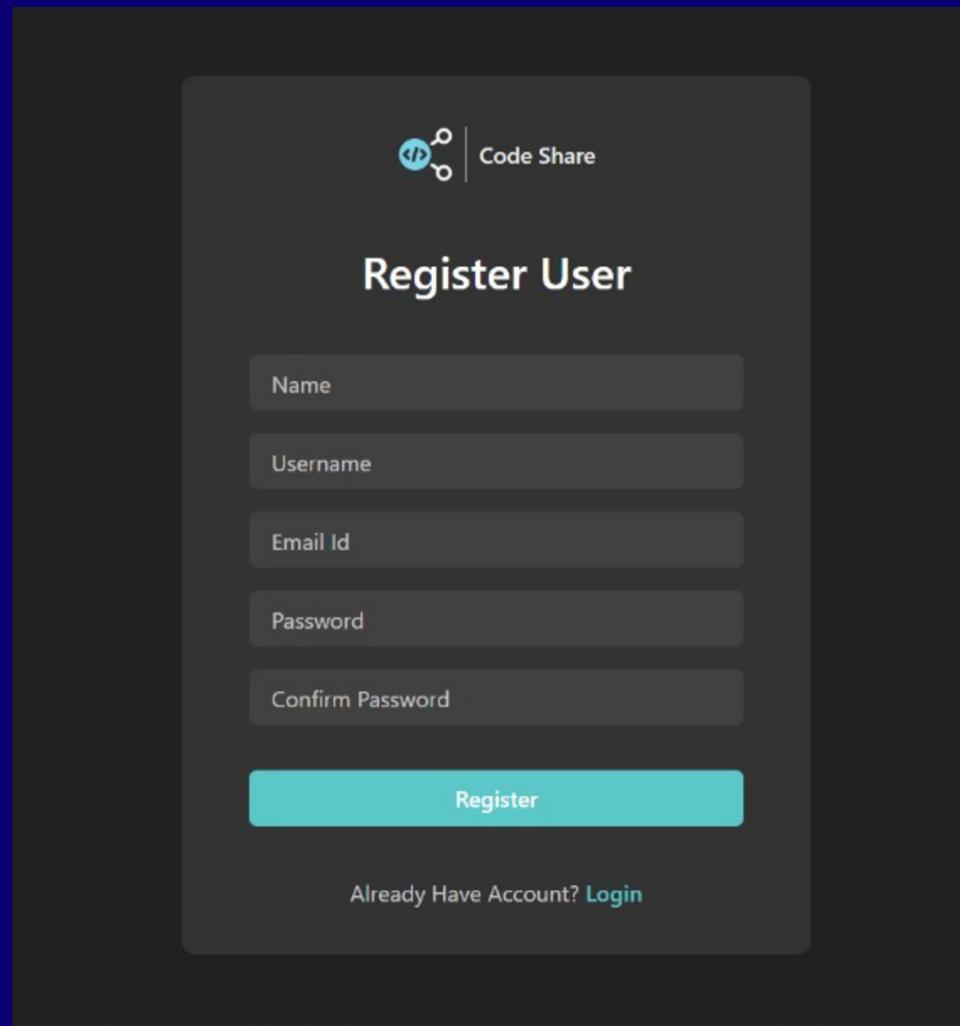


PROJECT SHOWCASE



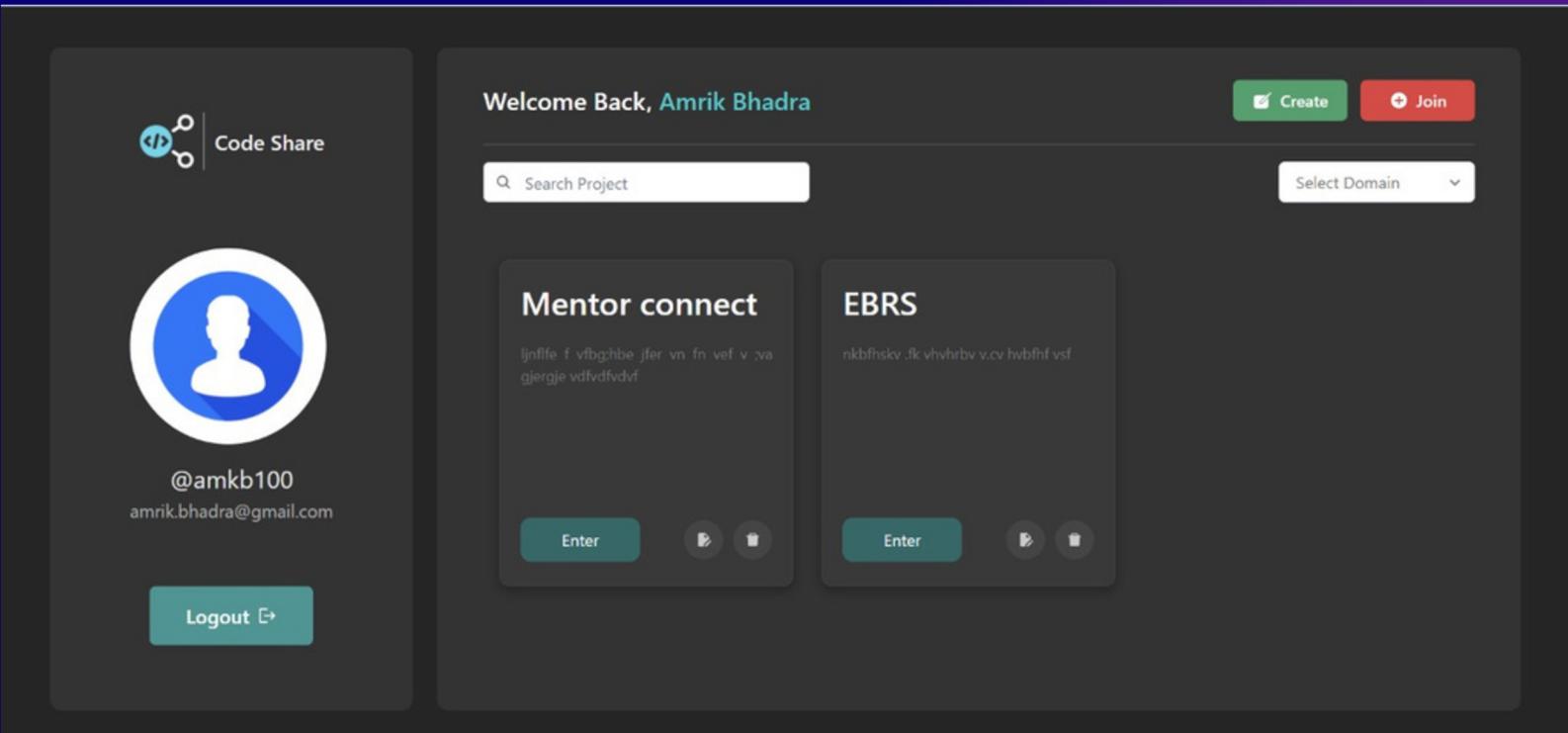
The login form for the Code Share application. It features a header with the 'Code Share' logo and title. Below is a 'Login Form' section with input fields for 'Email Id' and 'Password', and a 'Login' button. At the bottom is a link for users without an account: 'Don't Have Account? Register'.

LOGIN FORM



The registration form for the Code Share application. It features a header with the 'Code Share' logo and title. Below is a 'Register User' section with input fields for 'Name', 'Username', 'Email Id', 'Password', and 'Confirm Password', and a 'Register' button. At the bottom is a link for existing users: 'Already Have Account? Login'.

SIGNUP



The homepage of the Code Share application after logging in. It features a header with the 'Code Share' logo and title, and a welcome message: 'Welcome Back, Amrik Bhadra'. Below is a search bar with placeholder 'Search Project' and a 'Select Domain' dropdown. On the left is a sidebar with a user profile icon, handle '@amkb100', email 'amrik.bhadra@gmail.com', and a 'Logout' button. On the right are two cards: 'Mentor connect' and 'EBRS', each with a preview of project details and an 'Enter' button.

**Homepage After
Login**

PROJECT SHOWCASE

New Project

Project Title

Project Description

Select Domain

Add Members (type email and press space)

Max 5 members allowed.

Room Password

Create Project

Discard

Mentor connect data science

Open Code Editor Copy Room Code X

Members

AB Amrik Bhadra amrik.bhadra@gmail.com Remove

RV Ramani Vemula ramani.vemula@mitaoe.ac.in Remove

Files

Search File File Type Upload file Create

Project-Requirements Ramani Vemula Delete

project-summary Amrik Bhadra Delete

cover-image Ramani Vemula Delete

index.html Delete

TO CREATE A NEW
PROJECT

PROJECT ROOM HOMEPAGE

PROJECT SHOWCASE

The screenshot shows a user interface for a code room. On the left, there's a dark panel titled "Join Code Room" with fields for "Room Code" and "Username", and a "Join Room" button. Below it is a link to "Create Room". On the right, the main interface has a title "Members" showing one member named "amrik" with a profile icon. It includes a "Language" selector set to "javascript" and a code editor containing the line "1 console.log('hii');". A "Run Code" button is present, and the output window shows the result "hii". A notification at the top right indicates "amrik have joined the room". At the bottom, there are buttons for "Copy Room Code" and "Leave Room".

**JOINING THE
ROOM**

CODE ROOM

IMPACT:

- Enhances productivity for student teams by simplifying collaboration on coding projects.
- Facilitates better communication and coordination among team members, leading to improved project outcomes.

CONCLUSION:

- Centralizes all project-related activities in one platform, addressing common challenges faced by teams.
- Sets the stage for future features, such as integration with version control systems, to further improve the coding experience.



THANK YOU!!