PROJECT DOCUMENTATION FOR FREELANCING APPLICATION MERN

1. INTRODUCTION

Project Title: SB Works - Freelancing Application MERN

Team Members and Roles:

Kamesh M: Project Manager – Oversees the project workflow, manages the team, and ensures timely delivery.

Madesh E: Frontend Developer – Focuses on the design and functionality of the frontend, implementing user-friendly and responsive interfaces.

Madesh R: Backend Developer – Works on server-side logic, API creation, and database integration.

Magesh J: Database Administrator – Manages MongoDB structure, ensures data integrity, and optimizes database performance.

Abiyouth Shalvin J: QA and Testing Specialist – Develops and implements testing strategies, identifies bugs, and ensures quality assurance.

2. PROJECT OVERVIEW

Purpose: SB Works is designed to simplify and secure the freelancing experience by connecting clients with freelancers through a robust and intuitive platform. It enables clients to post projects and find skilled freelancers, while freelancers can bid on projects suited to their expertise.

Key Features:

Project Posting and Bidding: Clients can post projects with specific requirements, and freelancers can submit proposals.

Profile Management: Freelancers can create detailed profiles, showcase their skills, and build portfolios.

Secure Communication: Built-in chat for clients and freelancers to discuss project specifics.

Admin Oversight: Platform administrators ensure security, review project activity, and maintain quality control.

3. ARCHITECTURE

Frontend:

Framework: React is used to create a dynamic and responsive interface.

Styling Libraries: Bootstrap and Material UI provide a polished, modern look.

Data Fetching: Axios library is used for seamless API requests to communicate with the backend.

User Interface Features: Includes interactive forms for project posting, a dashboard for managing bids, and notifications for real-time updates.

Backend:

Framework: Node.js with Express.js for handling server-side processes.

API Endpoints: RESTful APIs to support various platform functionalities, including project posting, bidding, messaging, and profile management.

Security Measures: Middleware for input validation, error handling, and token-based authentication to secure API routes.

Database:

Database Management System: MongoDB, a NoSQL database ideal for handling complex data relationships.

Collections: Structured data collections for users, projects, bids, and chat messages.

Optimization: Indexed frequently queried fields to improve retrieval speeds and overall performance.

4. SETUP INSTRUCTIONS

Prerequisites:

Node.js installed on your machine.

MongoDB set up and running locally or through a cloud provider (e.g., MongoDB Atlas).

Installation:

Cloning the Repository: Run git clone <repository-url> to download the project.

Installing Dependencies:

Navigate to the frontend (client) and backend (server) directories, then run npm install to install dependencies.

Environment Variables: Configure .env files with API keys, database URLs, and authentication secrets.

Configuration:

Set up environment variables for MongoDB URI, JWT secrets, and any third-party API integrations.

5. FOLDER STRUCTURE

Client Directory:

Components Folder: Contains React components for modular UI building.

Pages Folder: Individual pages such as Home, Profile, and Project Details.

Services Folder: Manages API calls via Axios for data handling.

Server Directory:

Routes Folder: Defines all API endpoints (e.g., /api/users, /api/projects).

Models Folder: Schema definitions for MongoDB collections (e.g., User, Project).

Controllers Folder: Business logic and CRUD operations for each endpoint.

6. Running the Application

Frontend Command:

Navigate to the client directory and run npm start to launch the frontend on a local server (typically on port 3000).

Backend Command:

Navigate to the server directory and run npm start to launch the backend (usually on port 5000).

7. API DOCUMENTATION

Endpoints:

Users: /api/users – Register, authenticate, and manage user profiles.

Projects: /api/projects – CRUD operations for project listings.

Bids: /api/bids – Submit and view bids on projects.

Chat: /api/chat – Facilitates communication between clients and freelancers.

Example Request and Response:

Detailed example showing JSON requests and responses for each endpoint.

8. AUTHENTICATION

Methodology: JSON Web Token (JWT) is used to manage authentication and maintain secure user sessions.

Roles: User roles include client, freelancer, and admin, with different access levels.

Security Protocols: Tokens are validated on each request to secure endpoints from unauthorized access.

9. USER INTERFACE

Core Pages:

Homepage: Overview of platform features, latest projects, and quick links.

Dashboard: Personalized dashboard for clients and freelancers.

Project Posting Form: Allows clients to post projects with detailed requirements.

Profile Page: View and edit profile, upload portfolio items.

Visual Examples: Include images of the interface, showcasing essential features like project listings, bidding options, and messaging.

10. TESTING

Testing Strategy:

Unit Tests: Focus on individual components and backend functions.

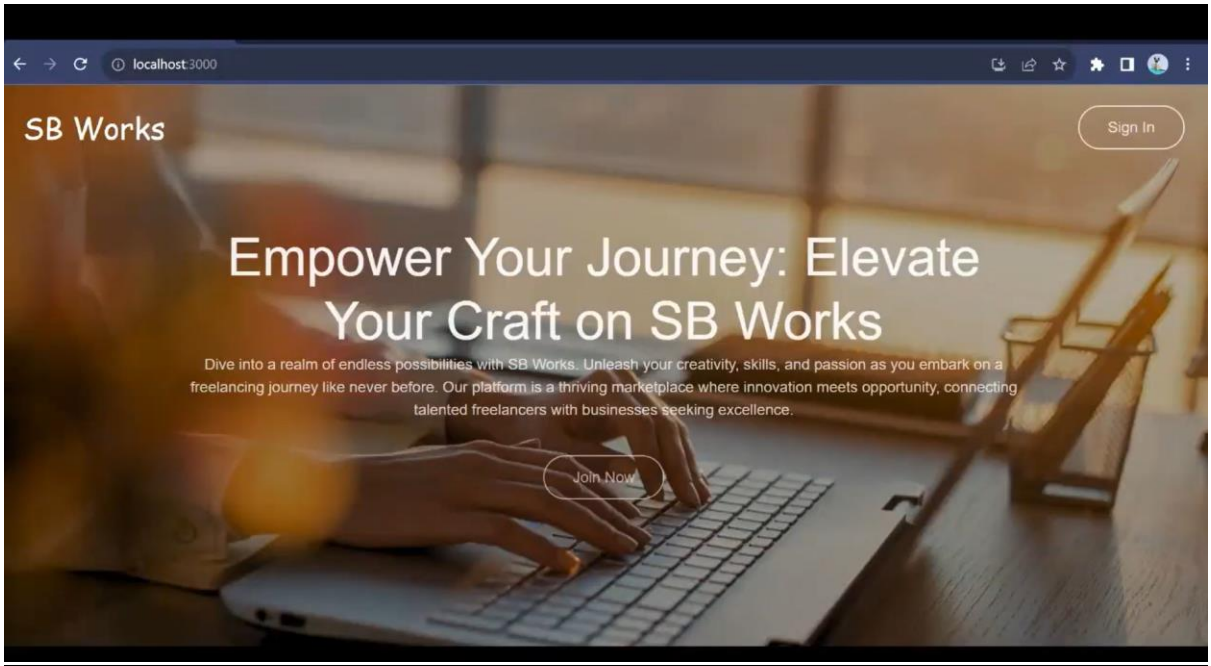
Integration Tests: Test API endpoints and frontend-backend interactions.

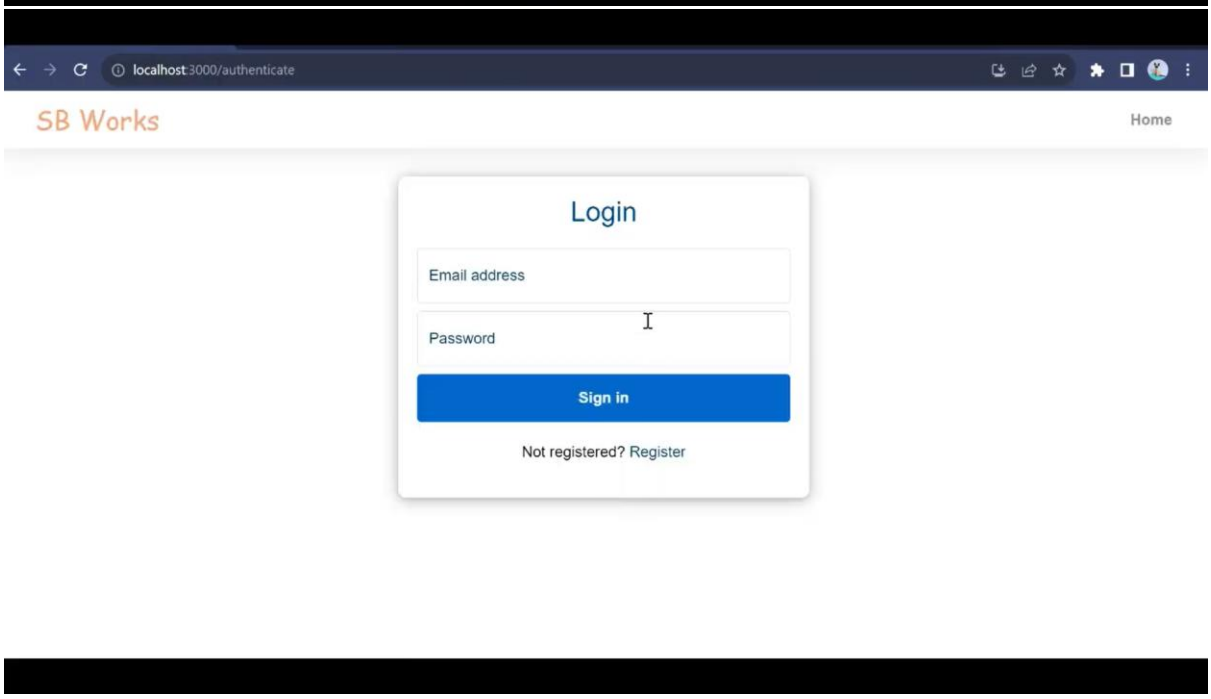
End-to-End Testing: Ensures user flows work as expected (e.g., logging in, posting a project, bidding).

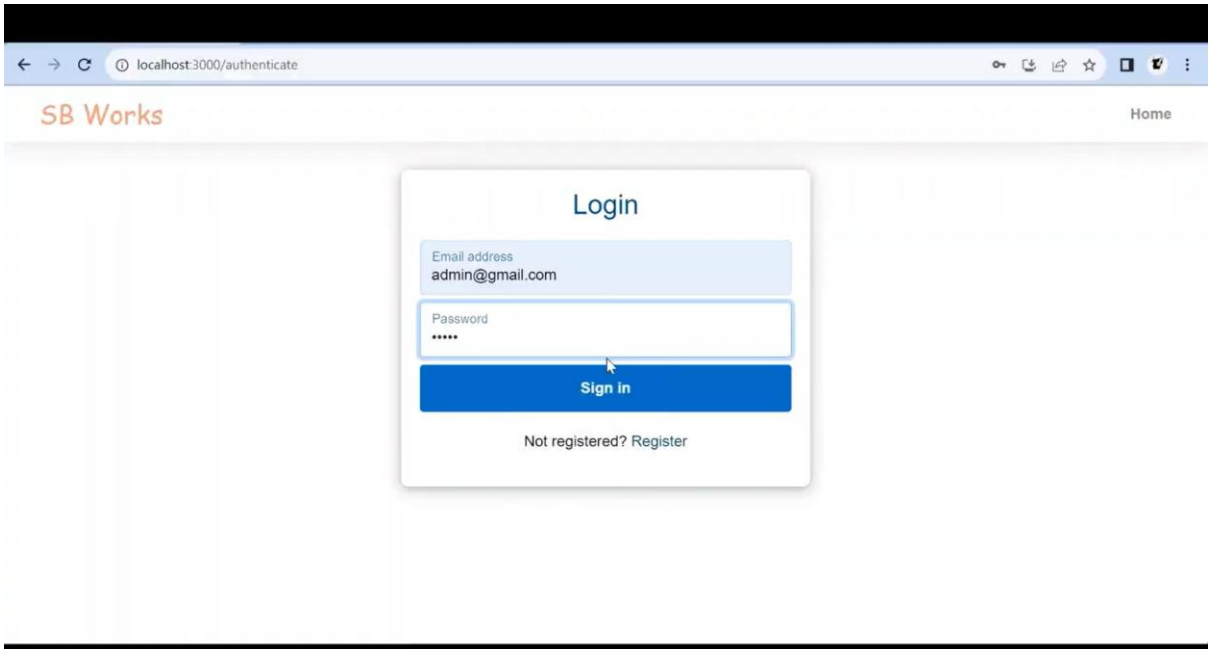
Tools Used: Jest for JavaScript testing, Postman for API testing.

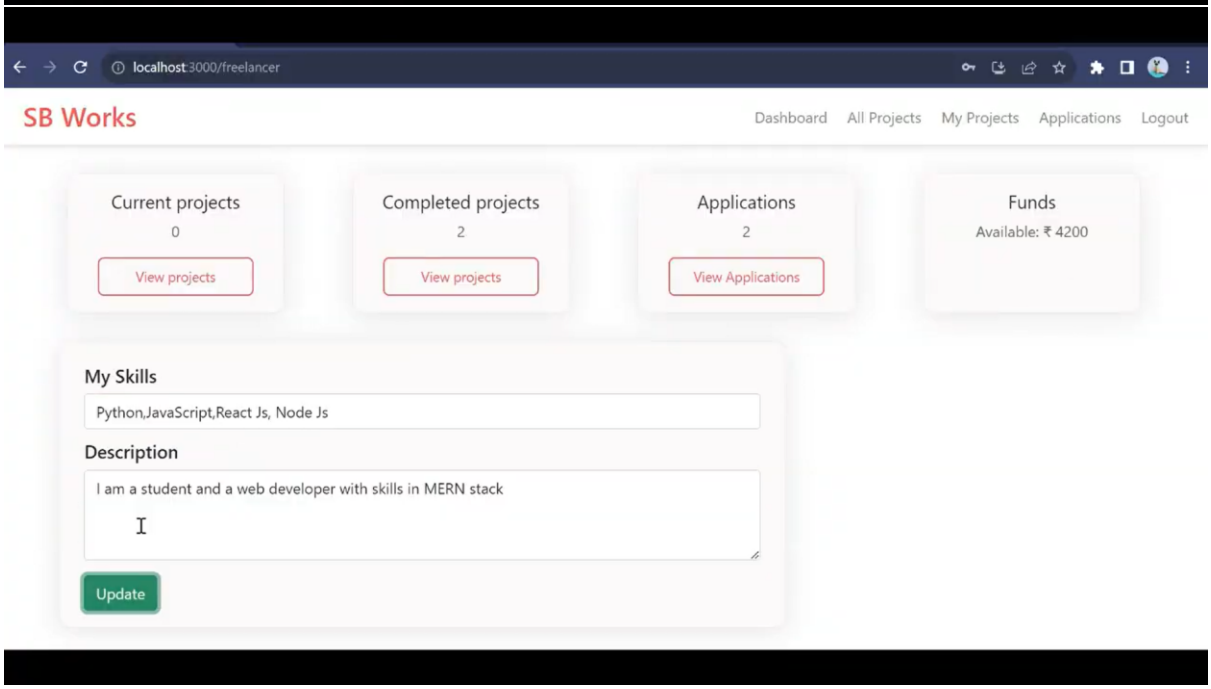
11. SCREENSHOTS AND DEMO

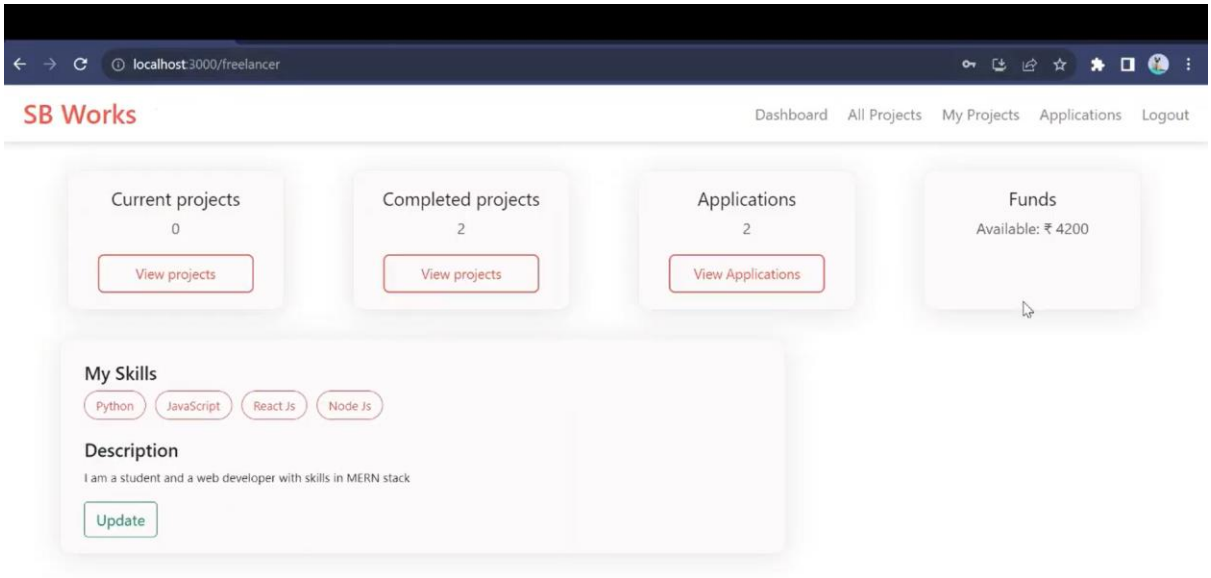
Screenshots:

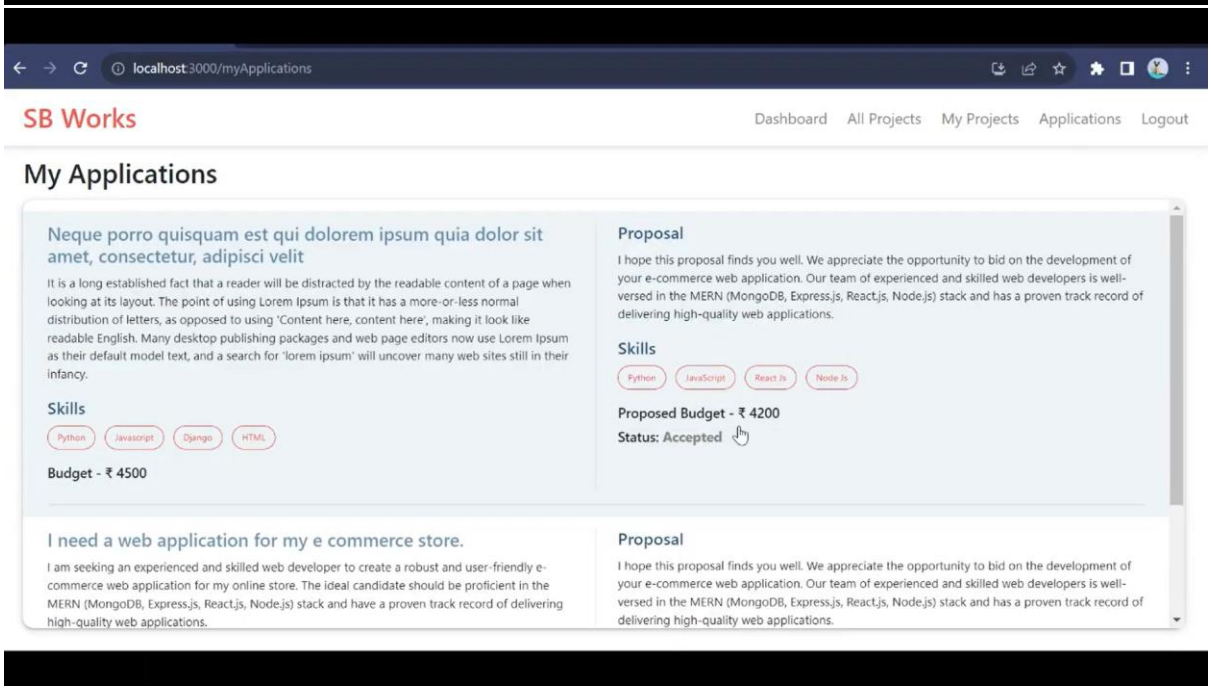

localhost:3000
SB Works
Sign In
Empower Your Journey: Elevate Your Craft on SB Works
Dive into a realm of endless possibilities with SB Works. Unleash your creativity, skills, and passion as you embark on a freelancing journey like never before. Our platform is a thriving marketplace where innovation meets opportunity, connecting talented freelancers with businesses seeking excellence.
Join Now

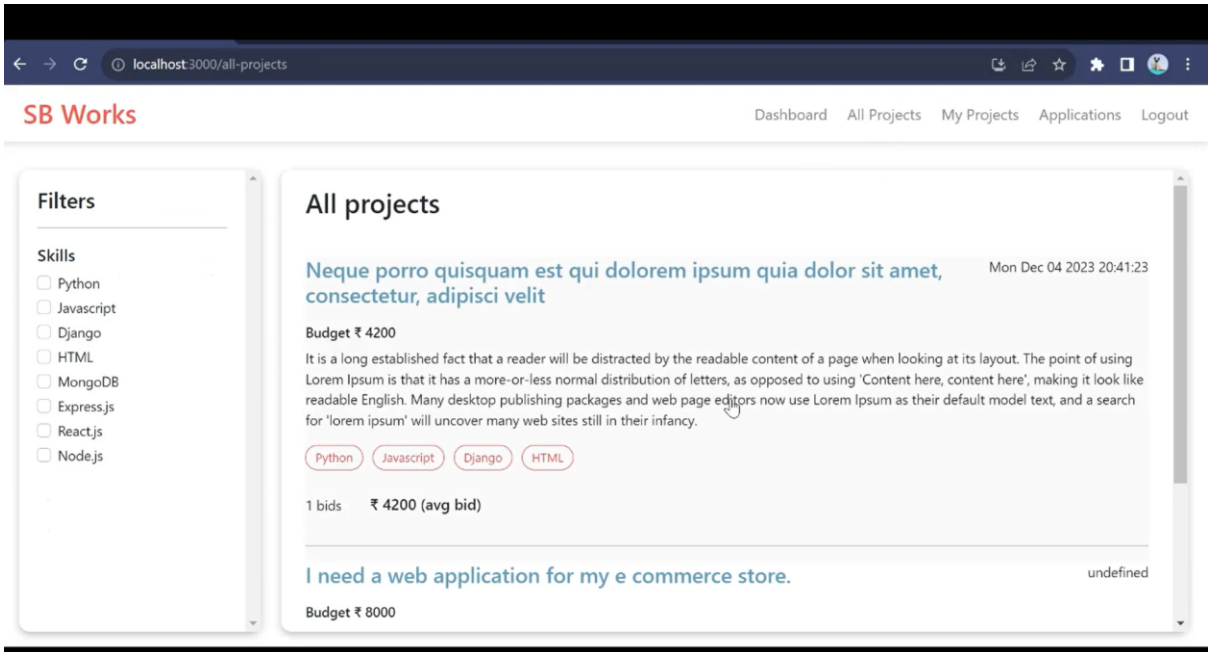

localhost:3000/authenticate
SB Works
Home
Login
Email address
Password
Sign in
Not registered? Register

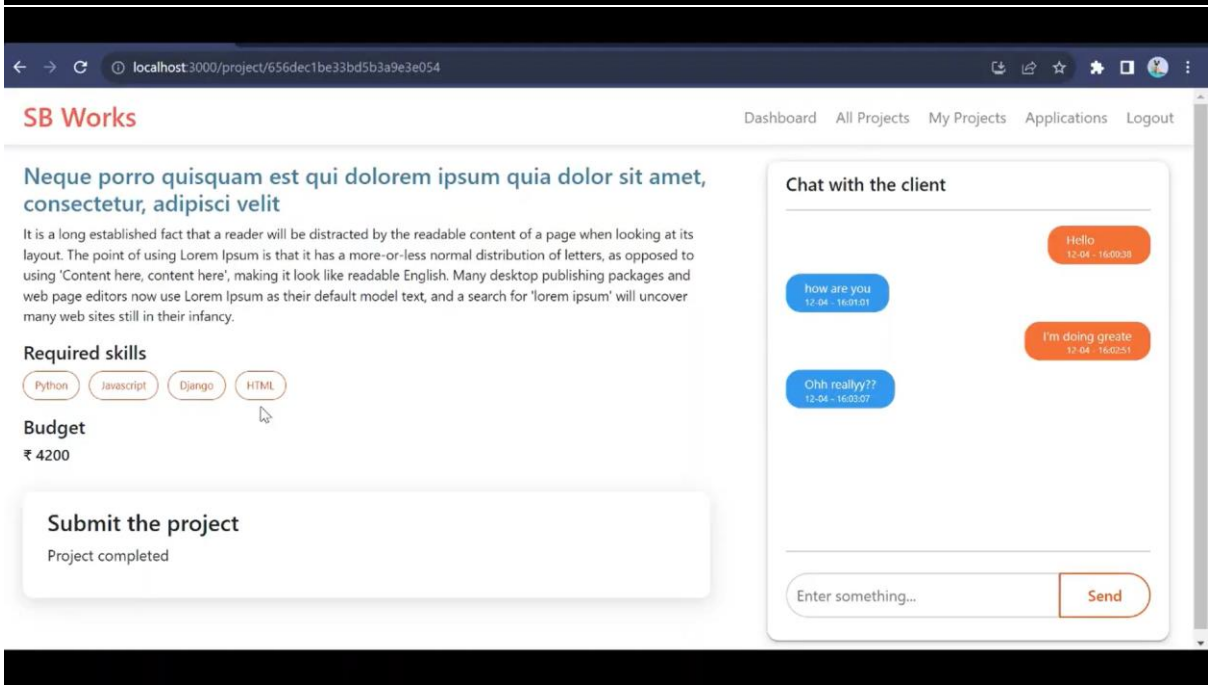

localhost:3000/authenticate
SB Works
Home
Login
Email address
admin@gmail.com
Password
Sign in
Not registered? Register

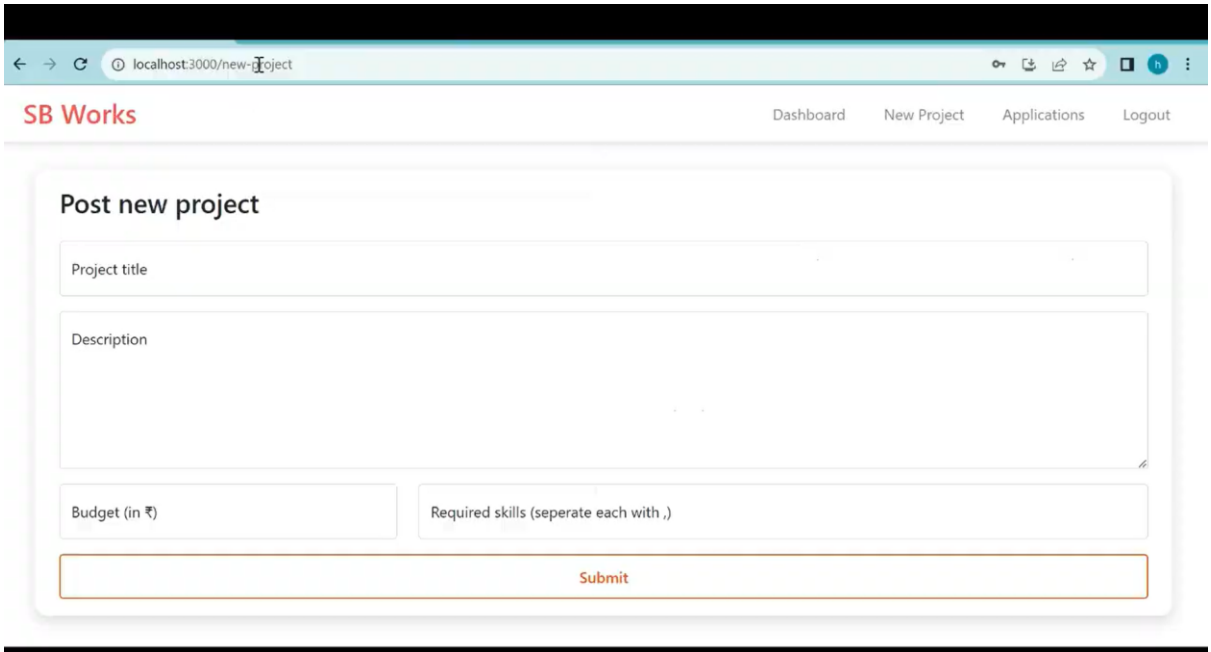

localhost:3000/freelancer
SB Works
Dashboard
All Projects
My Projects
Applications
Logout
Current projects
0
View projects
Completed projects
2
View projects
Applications
2
View Applications
Funds
Available: ₹ 4200
My Skills
Python,JavaScript,React Js, Node Js
Description
I am a student and a web developer with skills in MERN stack
Update

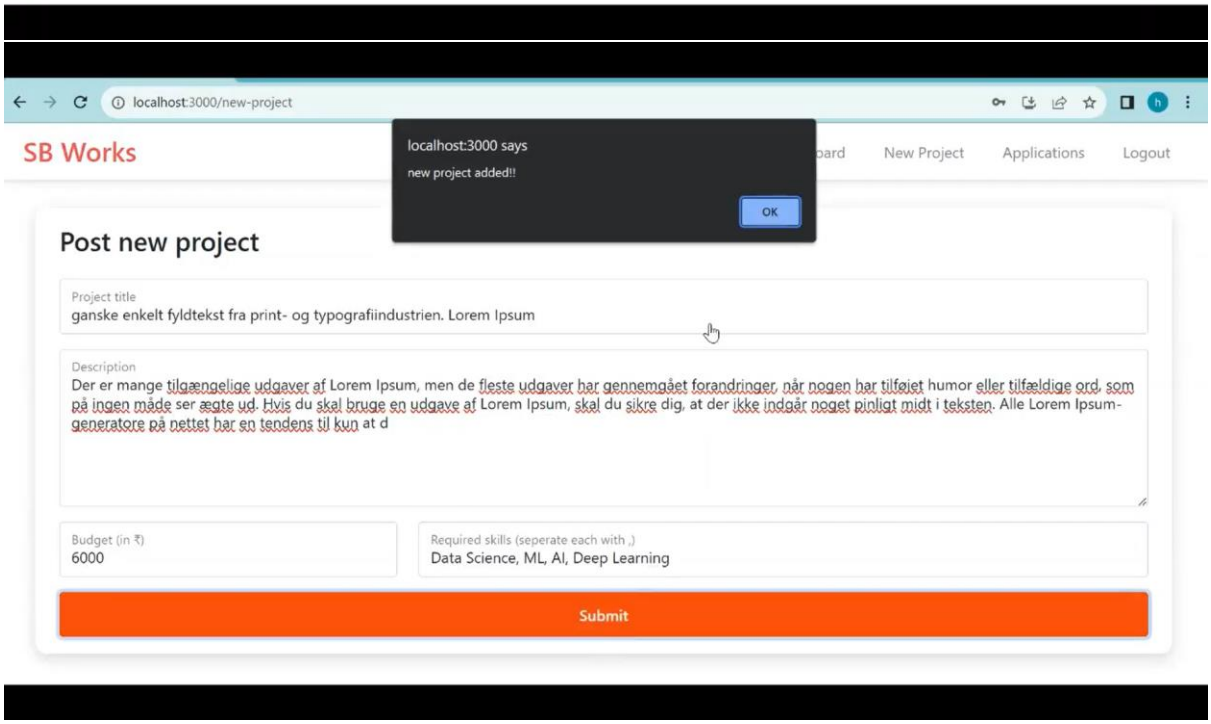

localhost:3000/freelancer
SB Works
Dashboard
All Projects
My Projects
Applications
Logout
Current projects
0
View projects
Completed projects
2
View projects
Applications
2
View Applications
Funds
Available: ₹ 4200
My Skills
Python
JavaScript
React Js
Node Js
Description
I am a student and a web developer with skills in MERN stack
Update

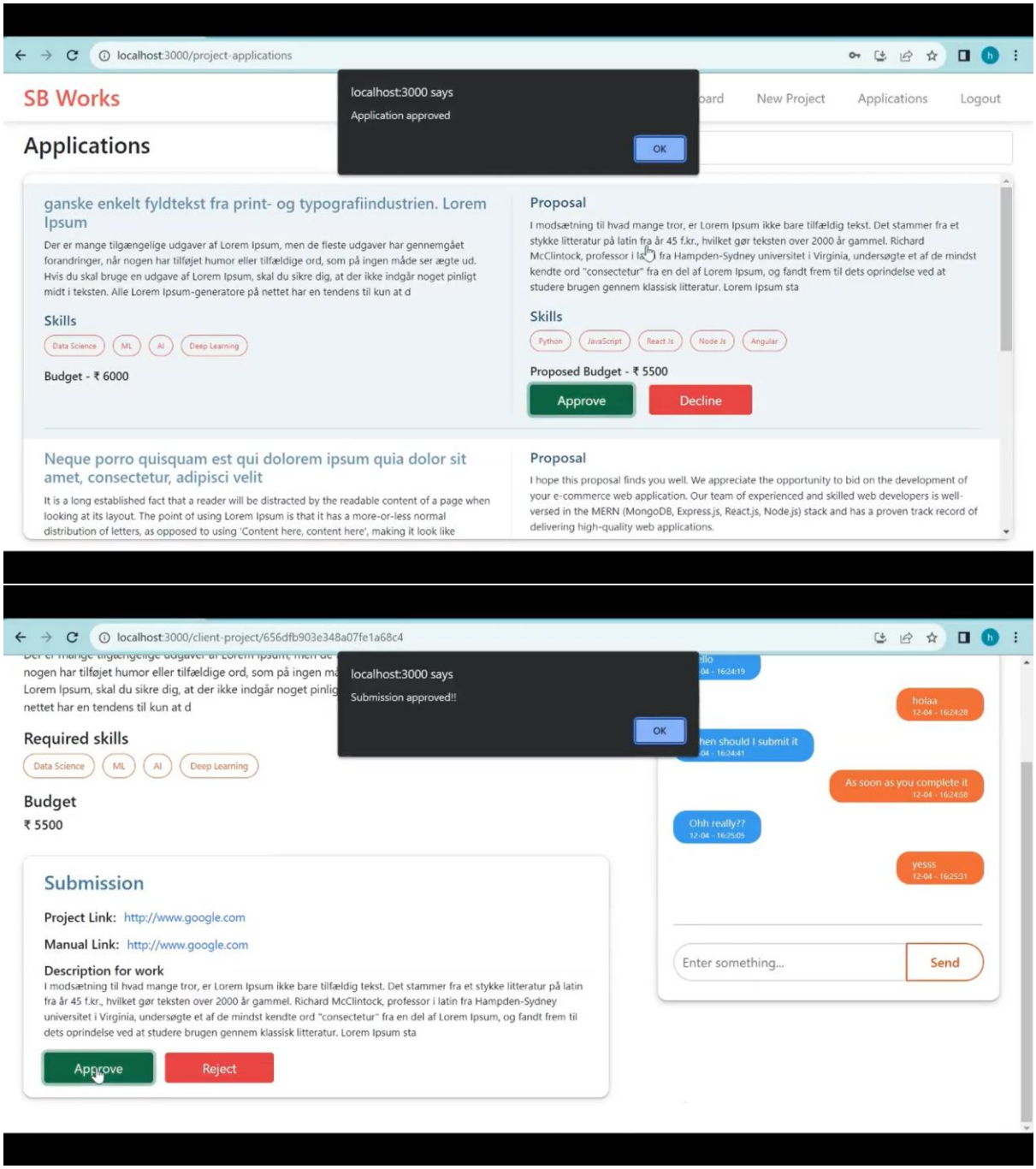

localhost:3000/myApplications
SB Works
Dashboard
All Projects
My Projects
Applications
Logout
My Applications
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit
It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy.
Skills
Python
Javascript
Django
HTML
Budget - ₹ 4500
Proposal
I hope this proposal finds you well. We appreciate the opportunity to bid on the development of your e-commerce web application. Our team of experienced and skilled web developers is well-versed in the MERN (MongoDB, Express.js, React.js, Node.js) stack and has a proven track record of delivering high-quality web applications.
Skills
Python
JavaScript
React Js
Node Js
Proposed Budget - ₹ 4200
Status: Accepted
I need a web application for my e commerce store.
I am seeking an experienced and skilled web developer to create a robust and user-friendly e-commerce web application for my online store. The ideal candidate should be proficient in the MERN (MongoDB, Express.js, React.js, Node.js) stack and have a proven track record of delivering high-quality web applications.
Proposal
I hope this proposal finds you well. We appreciate the opportunity to bid on the development of your e-commerce web application. Our team of experienced and skilled web developers is well-versed in the MERN (MongoDB, Express.js, React.js, Node.js) stack and has a proven track record of delivering high-quality web applications.


localhost:3000/all-projects
SB Works
Dashboard
All Projects
My Projects
Applications
Logout
Filters
Skills
Python
Javascript
Django
HTML
MongoDB
Express.js
React.js
Node.js
All projects
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit
Mon Dec 04 2023 20:41:23
Budget ₹ 4200
It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy.
Python
Javascript
Django
HTML
1 bids
₹ 4200 (avg bid)
I need a web application for my e commerce store.
undefined
Budget ₹ 8000


localhost:3000/project/656dec1be33bd5b3a9e3e054
SB Works
Dashboard
All Projects
My Projects
Applications
Logout
Neque porro quisquam est qui dolorem ipsum quia dolor sit amet, consectetur, adipisci velit
It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using 'Content here, content here', making it look like readable English. Many desktop publishing packages and web page editors now use Lorem Ipsum as their default model text, and a search for 'lorem ipsum' will uncover many web sites still in their infancy.
Required skills
Python
Javascript
Django
HTML
Budget
₹ 4200
Submit the project
Project completed
Chat with the client
Hello
how are you
I'm doing greate
Ohh reallyy??
Enter something...
Send


localhost:3000/new-project
SB Works
Dashboard
New Project
Applications
Logout
Post new project
Project title
Description
Budget (in ₹)
Required skills (seperate each with ,)
Submit


localhost:3000/new-project
SB Works
localhost:3000 says
new project added!!
OK
New Project
Applications
Logout
Post new project
Project title
ganske enkelt fyldtekst fra print- og typografiindustrien. Lorem Ipsum
Description
Der er mange tilgængelige udgaver af Lorem Ipsum, men de fleste udgaver har gennemgået forandringer, når nogen har tilføjet humor eller tilfældige ord, som på ingen måde ser ægte ud. Hvis du skal bruge en udgave af Lorem Ipsum, skal du sikre dig, at der ikke indgår noget pinligt midt i teksten. Alle Lorem Ipsum-generatore på nettet har en tendens til kun at d
Budget (in ₹)
6000
Required skills (seperate each with ,)
Data Science, ML, AI, Deep Learning
Submit



Demo Link : https://drive.google.com/file/d/1tSVPSpT-e5Z8nJ7Lr4dcGuKEV2IYFHT9/view?usp=drivesdk

12. KNOWN ISSUES

Bug Tracking: Current bugs documented in a bug-tracking system or as inline comments in the code.

Examples:

Inconsistent layout on smaller screen sizes.

Occasional delays in real-time updates for notifications.

13. FUTURE ENHANCEMENTS

Potential Features:

Advanced Filtering: Improved search and filtering options for projects and freelancers.

Payment Integration: Add secure payment options to streamline transactions on the platform.

AI-Based Matching: Integrate AI to recommend projects to freelancers based on skills and history.

User Ratings and Reviews: Allow clients to rate freelancers, and freelancers to provide feedback on clients.;page