

Freelance Project Report

Title

Freelance Pro - A MERN Stack Platform Connecting Clients and Freelancers

Abstract

This project is a full-stack freelance web application allowing clients to post projects and freelancers to apply. It uses role-based access (client, freelancer, admin), authentication, and real-time features with Socket.IO. Built using the MERN stack.

Technologies Used

- Frontend: React.js, React Router, Context API, Bootstrap
- Backend: Node.js, Express.js
- Database: MongoDB (Mongoose)
- Real-time: Socket.IO
- Authentication: JSON-based
- Tools: Git, GitHub, VS Code

Key Features

- User registration and login
- Role-based routing
- Clients post projects
- Freelancers apply (bid) for projects
- Application approval/rejection
- Project submission and approval
- Admin dashboard
- Real-time updates

Folder Structure

client/

src/

components/ - Reusable UI elements

pages/ - Different views

context/ - Global state

styles/ - CSS

App.js - Routes

server/

index.js - Express server

Schema.js - DB models

SocketHandler.js - Socket logic

How It Works

1. Auth and role routing
2. Client: Post, view, assign projects
3. Freelancer: Apply, submit work
4. Admin: Monitor all users/projects
5. Socket.IO: Real-time updates

Challenges

- Git submodule issues
- bcrypt install failures on Windows ARM
- MongoDB cluster DNS problems

Future Scope

- Integrate payments
- Add analytics
- Improve security (JWT)

Conclusion

This project demonstrates practical use of the MERN stack for building a real-world freelancing system.