FreelancerFlow

FreelancerFlow – Semester III Final Project Documentation
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📘 SEMESTER–III FINAL EXAM PROJECT DOCUMENTATION

FreelancerFlow
A MERN-Based Freelancer Management & Billing Platform

🧑‍🎓 1. Student Details

Name   : Raj Koli

Roll Number   : (Add Roll Number)

Course   : B.Tech – Computer Science Engineering

Batch   : 2024 – 2028

Semester   : III

Subjects Covered:

- Creating Full Stack Application (CFA)

- Node.js & Express

- React.js

🏷️ 2. Project Title

FreelancerFlow – End-to-End Freelancer Workflow Management System

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❗ 3. Problem Statement

Freelancers often face difficulties in managing their work efficiently due to:

- Scattered client and project data

- Manual and inaccurate time tracking

- Difficulty in generating invoices

- No proper tracking of payments and dues

- Lack of a centralized dashboard

Most existing platforms are either paid, too complex, or not suitable for students and beginner freelancers.

💡 4. Proposed Solution

FreelancerFlow is a MERN-based full stack web application that provides a single platform for freelancers to manage their complete workflow.

The system allows users to:

- Manage clients and projects

- Track billable and non-billable hours

- Generate professional invoices

- Record payments

- View analytics in a centralized dashboard

The application strictly follows real-world freelancer accounting logic.

🆚 5. Why FreelancerFlow Is Better Than Other Platforms

Existing platforms like Upwork, Fiverr, Zoho, Invoice Ninja, and Clockify:

- Focus only on specific features

- Require paid plans for basic usage

- Are complex and enterprise-oriented

- Do not expose internal logic

- Are not learning-friendly

FreelancerFlow:

- Covers the complete freelancer workflow

- Is beginner and student friendly

- Uses real-world accounting rules

- Has a clean and minimal UI

- Is fully customizable

Correct enforced workflow:
User → Client → Project → Time Logs → Invoice → Payment

💼 6. Technologies Used (MERN Stack)

Frontend:

- React.js

- Context API

- React Router

- Axios

- Neumorphism UI

- Responsive Design

Backend:

- Node.js

- Express.js

- REST APIs

- JWT Authentication

- Firebase OAuth (Google & GitHub)

Database:

- MongoDB Atlas

- Mongoose ODM

Tools & Platforms:

- GitHub

- Vercel (Frontend)

- Render (Backend)

- Firebase Authentication

🏗 7. System Architecture

Frontend (React):

- Handles UI and user interaction

- Displays analytics and dashboards

- Communicates with backend APIs

Backend (Node.js & Express):

- Handles business logic

- Authentication and authorization

- Validates data relationships

Database (MongoDB):

- Stores structured collections

- Maintains referential integrity

⭐ 8. Key Features Implemented

- Google & GitHub Authentication

- Client Management

- Project Management (Hourly / Fixed)

- Time Tracking

- Invoice Generation

- Payment Tracking

- Outstanding Balance Calculation

- Dashboard Analytics

🗄 9. Database Design

User:

- name
- email
- authProvider

Client:

- userId
- name
- company
- currency
- status

Project:

- clientId
- billingType
- hourlyRate / fixedPrice
- status

TimeLog:

- projectId
- hours
- billable
- invoiced

Invoice:

- items
- subtotal
- tax

- totalAmount

- status

Payment:

- invoiceId

- amount

- paymentDate

- paymentMethod

🖥️ 10. Pages / UI Screens

- Login / Signup

- Dashboard

- Clients

- Client Detail View

- Projects

- Project Detail View

- Time Tracking

- Invoices

- Invoice Details

- Settings

🎨 11. UI Design

The UI follows a modern neumorphism design with:

- Soft shadows

- Clean spacing

- Professional SaaS look

- High usability

🔗 12. GitHub Repository

https://github.com/Rajkoli145/FreelancerFlow.git

🌍 13. Live Deployment

Frontend (Vercel): https://freelancer-flow-seven.vercel.app/login

Backend (Render): https://freelancerflow-59ye.onrender.com

🏁 Conclusion

FreelancerFlow demonstrates a complete MERN stack application with real-world freelancer workflow logic, secure authentication, and professional UI.

The project is suitable for academic evaluation and real-world usage.