

# Project Documentation

Fitflex : Your Personal Fitness Companion

## 1.Introduction

- **Project Title :** *Fitflex : Your Personal Fitness Companion*
- **Team ID :** *NM2025TMID30413*
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## 2.Project Overview

- **Purpose :** *SB works connects clients and freelancers through project posting,bidding and real-time communication.*
- **Features :**
  - ✚ *Project posting and bidding*
  - ✚ *Secure chat system*
  - ✚ *Feedback and review system*
  - ✚ *Admin control panel*

## 3.Architecture

- **Frontend :** *React.js with Bootstrap and Material UI*
- **Backend :** *Node.js and Express.js managing server logic and API endpoints*
- **Database :** *MongoDB stores used data,project information,applicatins and chat messages.*

## 4.Setup Instructions

- **Prerequisites :**
  - ✚ *Node.js*
  - ✚ *MongoDB*
  - ✚ *Git*
  - ✚ *React.js*
  - ✚ *Express.js*
  - ✚ *Mongoose*
  - ✚ *Visual Studio Code*
- **Installation Steps :**

*# Clone the repository git clone #*

*Install client dependencies cd*

*client npm install*

*# install server dependencies cd*

*../server npm install*

## **5.Folder Structure**

*SB-Works/*

*| -- client/                      # React frontend*

*| \_\_components/*

*L\_\_pages/*

*| \_\_server/                      # Node.js backbend*

*| \_\_routes/*

*| \_\_models/*

*| \_\_controllers/*

## **6.Running the Application**

- **Frontend :**

- *cd        client*

- npm    start*

- **Backend :** *cd*

- server npm start*

**Access :** Visit <http://localhost:3000>

## **7.API Documentation**

- **User :**

- ✚ */api/user/register*

- ✚ */api/user/login*

- **Projects :**

- ✚ */api/projects/create*

- ✚ */api/projects/:id*

- **Applications :** */api/apply*

- **Chats :**

✚ `/api/chat/send`

📄 `/api/chat/:userId`

## 8.Authentication

- *JWT – based authentication for secure login*
- *Middleware protects private routes*

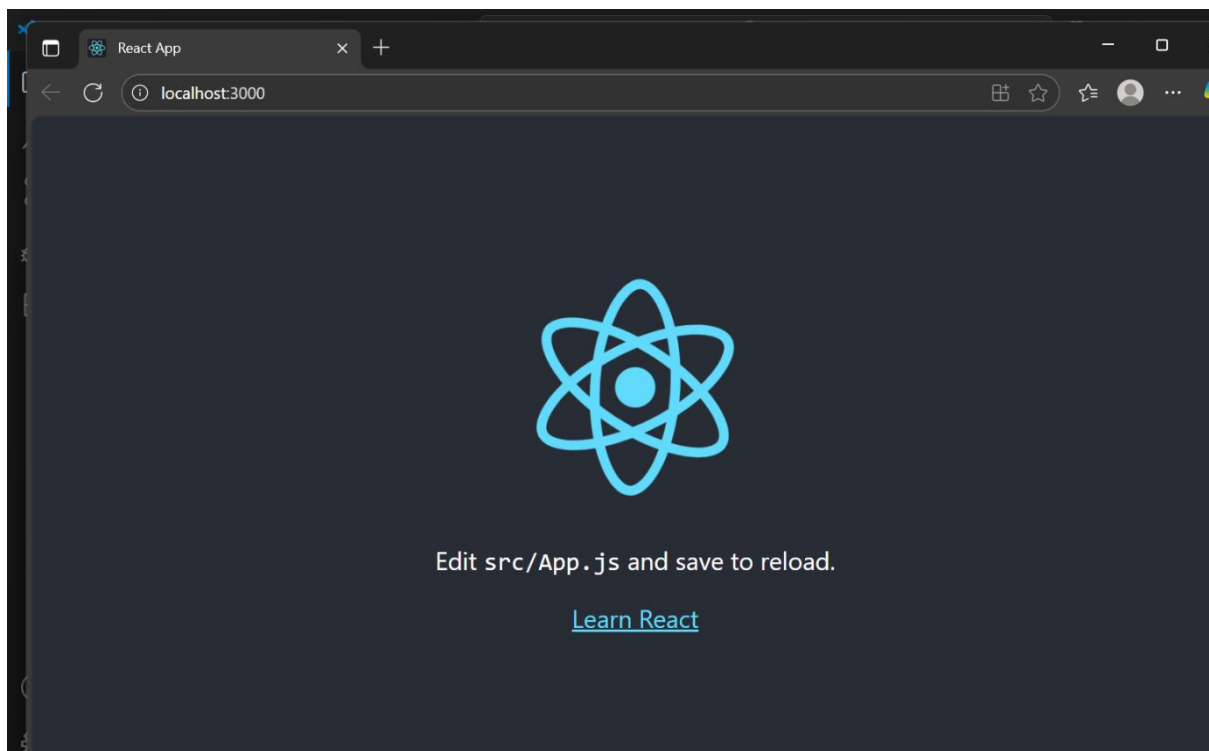
## 9.User interface

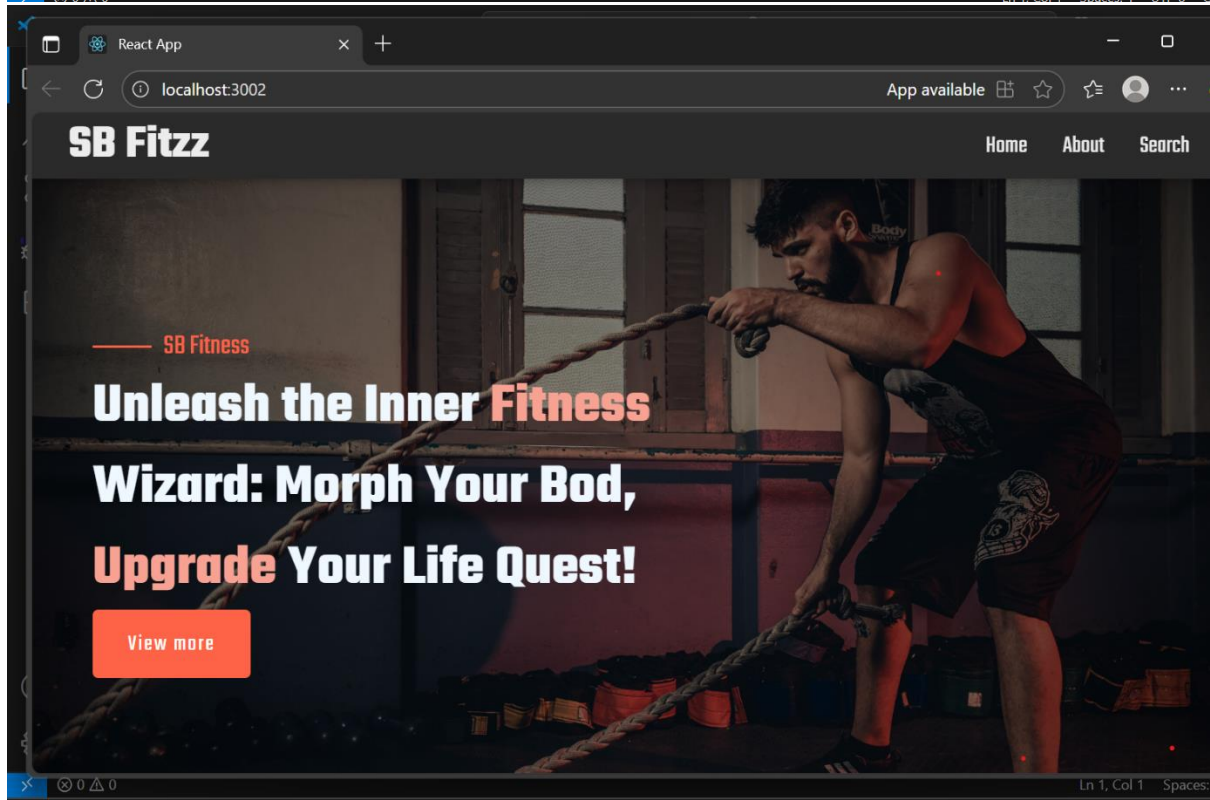
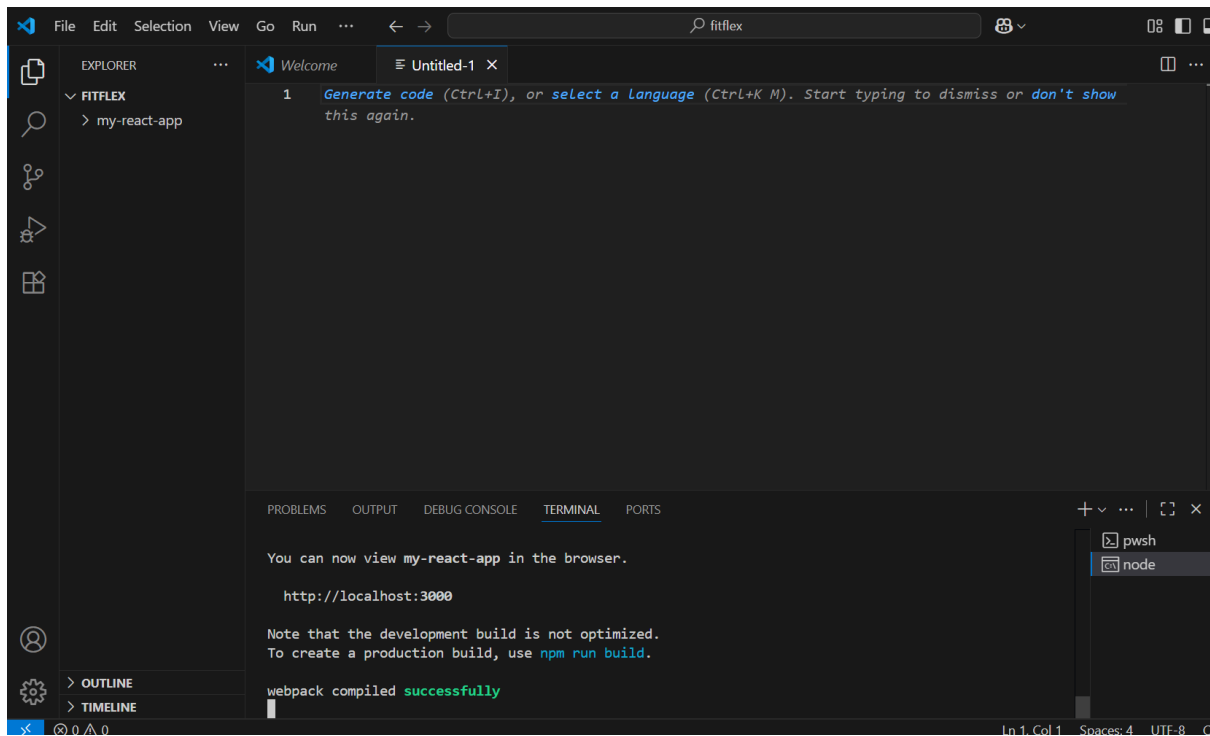
- *Landing Page*
- *Freelancer Dashboard*
- *Admin Panel*
- *Project Details Page*

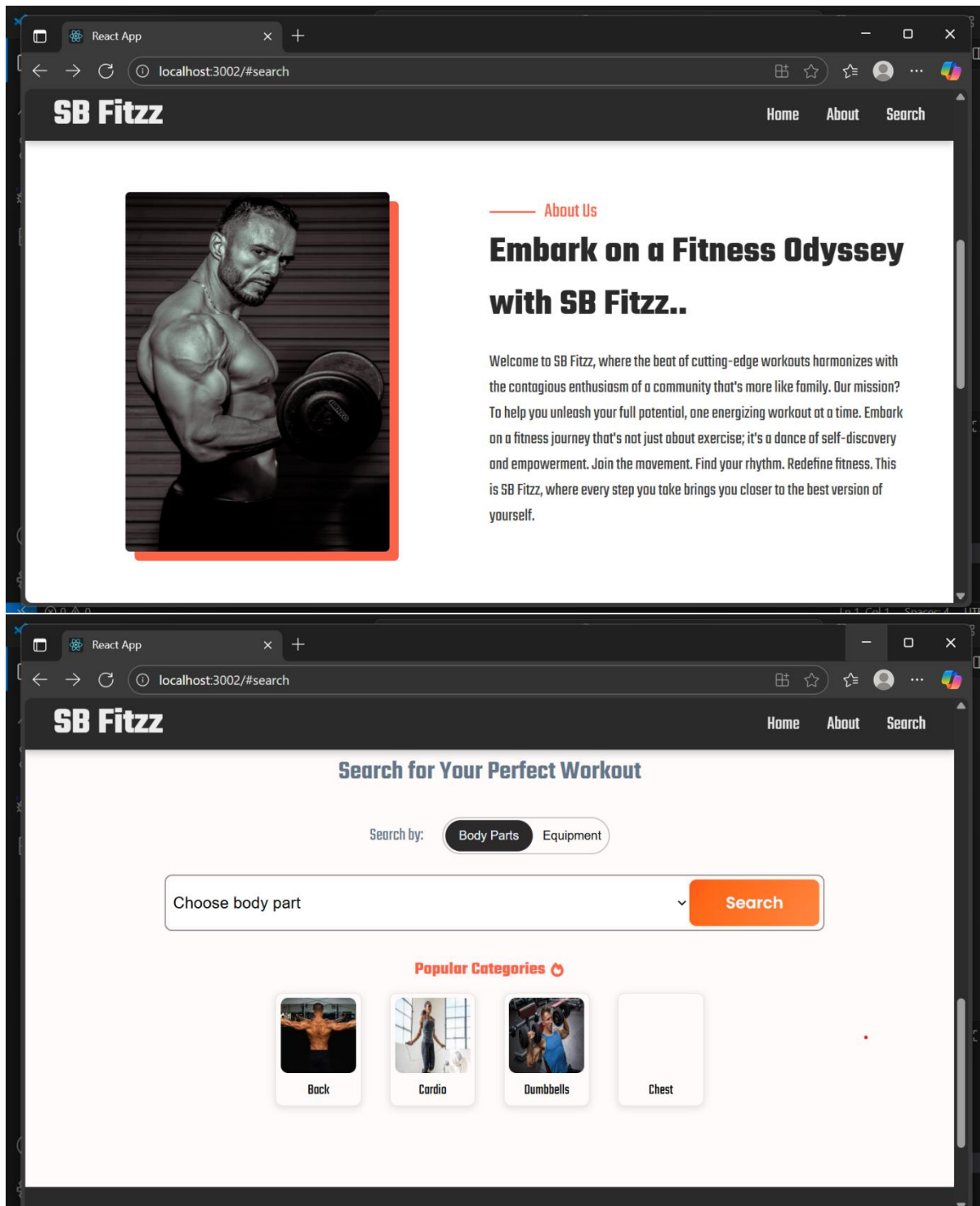
## 10.Testing

- *Manual testing during milestones*
- *Tools : Postman,Chrome Dev Tools*

## 11.Screenshots or Demo







## 12. Known Issues

- **Limited Dataset**

The app currently supports only a few exercise categories (e.g., Cardio, Strength, Yoga).

- **Exercise details** (steps, videos, equipment info) are not fully comprehensive.
- All exercise data is fetched from static files / third-party API calls, so there is no persistent user profile.
- **Mobile Responsiveness**

While the app works on desktop browsers, some layouts (exercise cards, navigation bar) break on small-screen devices.

- **Search & Filter Limitations**

Search is case-sensitive and sometimes fails if spelling doesn't match exactly.

Filtering exercises by difficulty/equipment is not yet available.

- **Performance Issues**

First-time loading of images/videos may be slow due to no lazy-loading or caching implemented.

If API calls fail, the app does not gracefully show fallback messages.

- **Error Handling**

Limited error messages when API/data fetch fails (sometimes blank screen instead of error prompt).

- **No offline mode** – the app requires an internet connection at all times.

## ***13.Future Enhancements***

Future Enhancements for FitFlex

- **Expanded Exercise Library**

Add more categories (Strength, HIIT, Pilates, Flexibility, Meditation).

- Provide detailed instructions, GIF/video demos, and equipment recommendations.
- **User Authentication & Profiles**

Implement secure login/signup (JWT-based).

Let users create personalized workout plans and save progress.

- **Workout Tracking & Analytics**

Track sets, reps, calories burned, and workout history.

Provide weekly/monthly progress dashboards.

- **Smart Recommendations**

Suggest workouts based on fitness level, goals (e.g., weight loss, endurance, muscle gain).

AI-driven recommendations from user history and preferences.

- **Improved Search & Filtering**

Add filters for difficulty (Beginner/Intermediate/Advanced), duration, and equipment.

Implement fuzzy search (ignore spelling errors).

- **Mobile Responsiveness & PWA Support**

Fully responsive design for all screen sizes.

Convert app into a Progressive Web App (PWA) so it works offline.