

Project Documentation

FitFlex : Your Personal Fitness Companion

1. Introduction

- **Project Title:** FitFlex : Your Personal Fitness Companion
- **Team ID:** NM2025TMID30058
- **Team Leader:** SANJANAA S - 202400341@sigc.edu
- **Team Members:**
 - GAJAPRIYA T - 202400190@sigc.edu
 - JAGADEESWARI S - 202400742@sigc.edu
 - MONIKA U - 202400716@sigc.edu
 - PRIYADHARSHINI R - 202400756@sigc.edu

2. Project Overview

- **Purpose:** SB Fitzzz is designed to revolutionize the way users engage with exercise routines. It provides an intuitive platform for discovering, organizing, and managing workouts while fostering a community around fitness and wellness.
- **Features:**
 - Exercises from Fitness API
 - Visual Exercise Exploration
 - Intuitive and User-Friendly Design
 - Advanced Search Feature

3. Architecture

- **Frontend:** React.js with Bootstrap/ Tailwind CSS, React Router, React Icons.
- **Backend:** Node.js and Express.js managing server logic and API endpoints. Fitness APIs and YouTube APIs for videos.
- **Database:** Not included (Future scope - can integrate MongoDB for user management, saved workouts and more).

4. Setup Instructions

- **Prerequisites:**

- [Node.js](#) and npm
- [React.js](#)
- Git and GitHub
- Visual Studio Code

- **Installation Steps:**

```
# Clone project from Google Drive
git clone <https://drive.google.com/drive/folders/14f9eBQ5W7VrLdPhP2W6PzOU_HCy8UMex>

# Install dependencies
cd fitness-app-react npm install

# Run development server
npm start
```

5. Folder Structure

```
fitness-app-react/
|__public/
|__src/                # React frontend
|   |__components/
|   |   |__pages/
|__server/            # Node.js backend
|   |__routes/
|       |__models/
|       |   |__controllers/
|       |       |__integrations/
|       |           |__dependencies/
```

6. Running the Application

- **Frontend:**

```
cd fitness-app-react npm start
```

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

7. API Documentation

- **Exercises:**

- Fetch body parts and equipments list.
- Fetch exercises under a specific category.
- Fetch exercise details.

- **Videos:**

- Fetch related YouTube videos for each exercise.

8. Authentication

- Currently not implemented. (Future enhancement – add JWT-based authentication for saving personal workouts, tracking progress and user login).

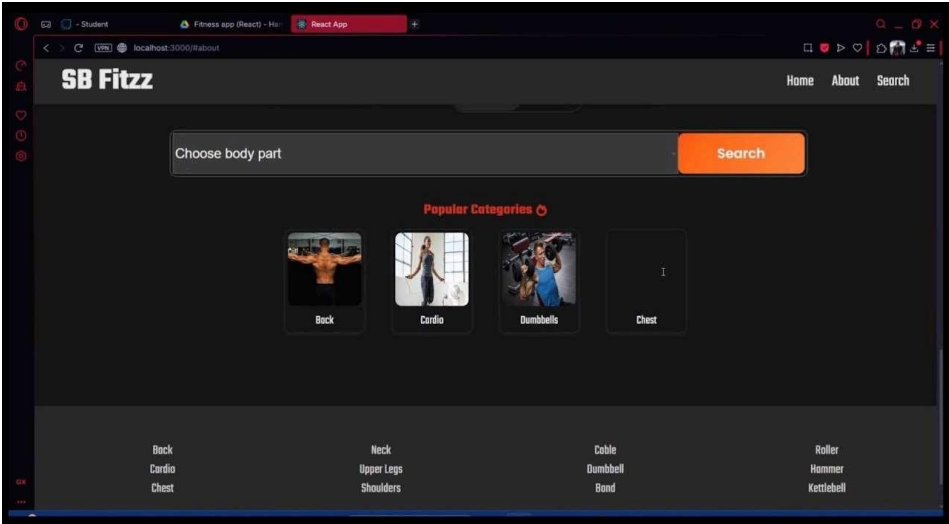
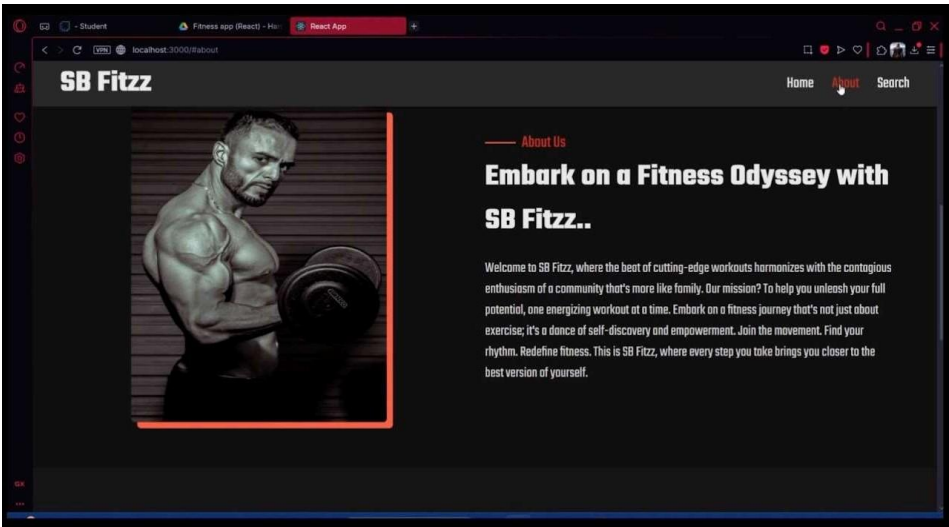
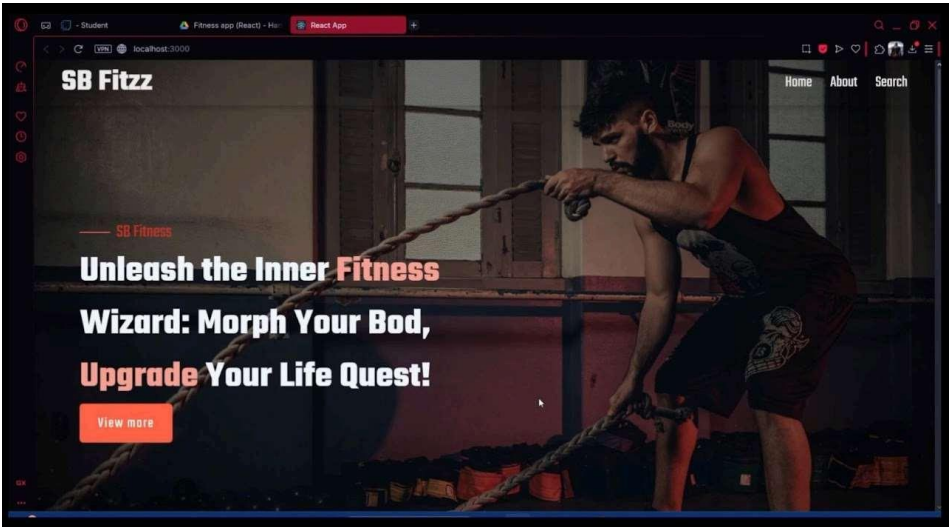
9. User Interface

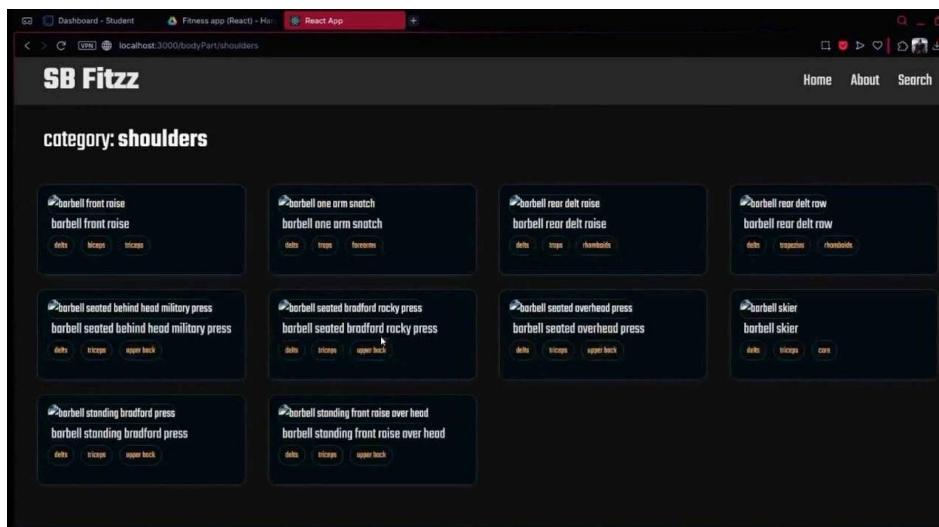
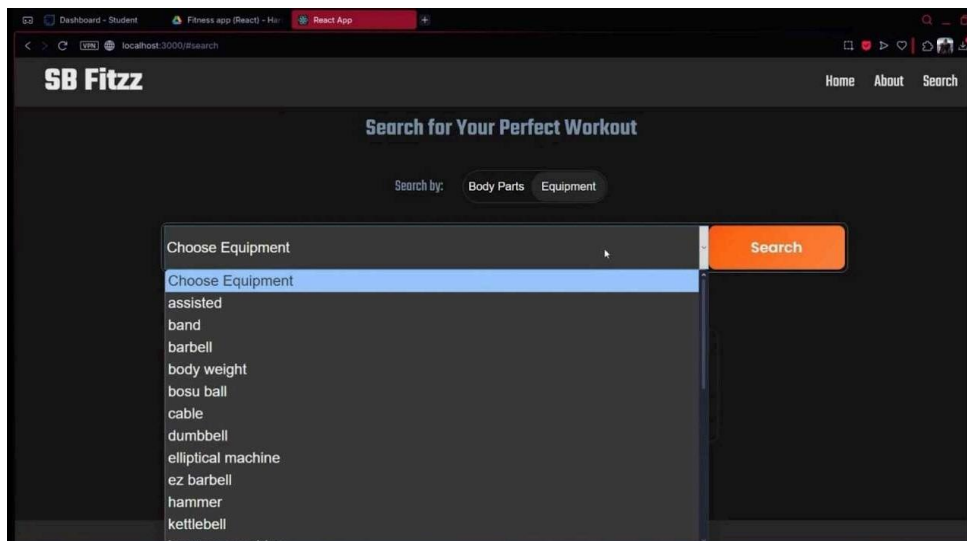
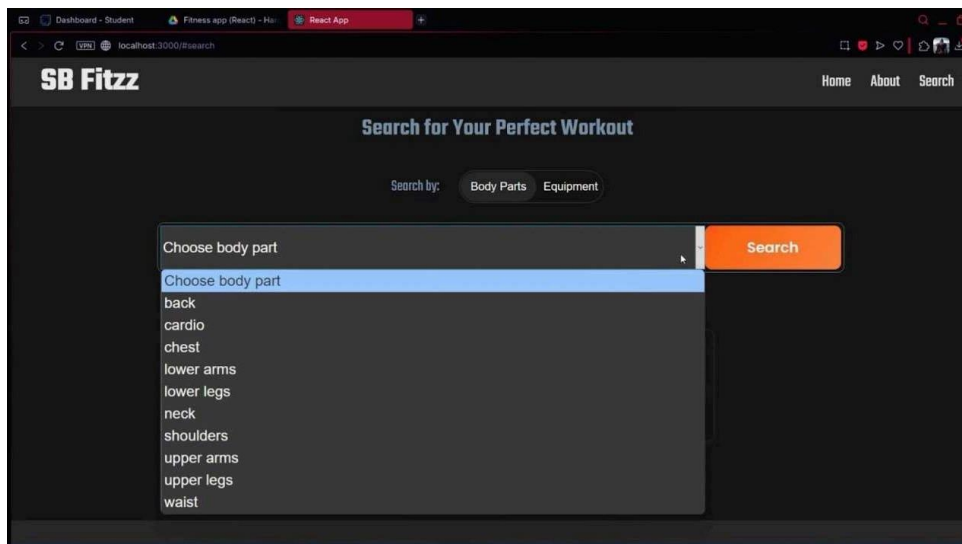
- Landing Page – Hero Component
- About Section
- Drop down list for exercises and equipments
- Exercise details page (instructions and related YouTube videos)

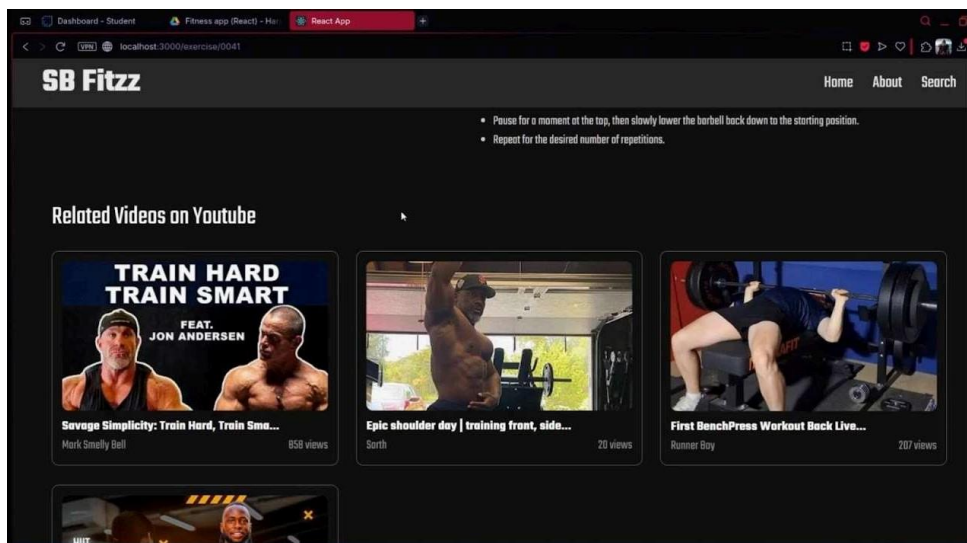
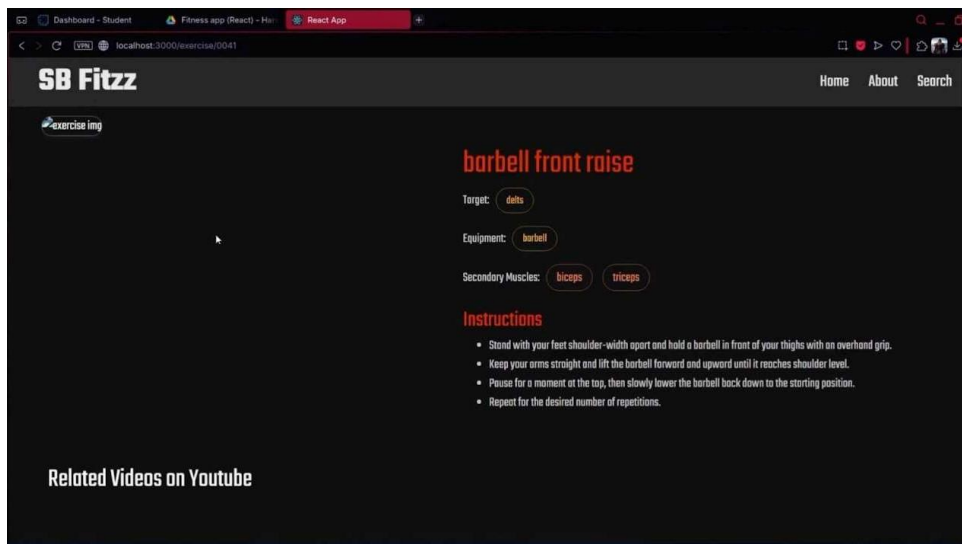
10. Testing

- Manual testing during milestones
- Tools: Postman, Chrome Dev Tools, React Developer Tools

11. Screenshots or Demo







Demo link :

<https://drive.google.com/file/d/1McMLUMbHXyYOhKDeN8W7rpJ3FmnVDe8D/view?usp=drivesdk>

12. Known Issues

- API issue (Exercise images are not loading)
- No backend database integration (currently read-only from APIs)

13. Future Enhancements

- Add user authentication and profile management
- Integrate database for storing user data and routines
- Add workout tracking and diet planning features
- Gamification (badges, challenges, leaderboards)
- AI – powered personalized workout recommendations