

PROJECT DOCUMENTATION

FITFLEX

1.INTRODUCTION

- PROJECT TITLE : FITFLEX
- TEAM ID : NM2025TMID37010
- TEAM LEADER : PAVITHRA.M (pavithra25057@gmail.com)
- TEAM MEMBERS :
 - PAVITHRA.B (pavithrabala1907@gmail.com)
 - PAVITHRA.S (pavi102006@gmail.com)
 - PONNI BAI.G (ponnibai582@gmail.com)

2.PROJECT VIEW

- **PURPOSE :**

Fitflex encourages students and youth to maintain physical fitness and mental wellness through AI-driven fitness & diet tracking.
- **FEATURES :**
 - Daily workout & step tracking
 - Personalized diet planner
 - BMI calculator & calorie counter
 - Progress reports & health analytics
 - Notification & reminders
 - Community challenges

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 user Data, Project information, Application and Chat messages

4.SETUP INSTRUCTIONS

- **PREREQUISTIES :**
 - Node.js
 - MongoDB

- React.js
- Git
- Express.js
- Mongoose
- Visual Studio Code

● INSTALLATION STEPS :

Clone the repository git clone

Install client dependencies cd
../server npm install

5.FOLDER STRUCTURE

```
SB-Works/      # Main project folder
|
├── client/     # React frontend
|   ├── public/ # Static assets (index.html, icons, etc.)
|   └── src/     # Source code
|       ├── assets/ # Images, fonts, etc.
|       ├── components/ # Reusable UI components
|       |   ├── About.jsx
|       |   ├── Footer.jsx
|       |   ├── Hero.jsx
|       |   ├── HomeSearch.jsx
|       |   └── Navbar.jsx
|       ├── pages/ # Pages for routing
|       |   ├── Home.jsx
|       |   ├── Exercise.jsx
|       |   ├── BodyPartsCategory.jsx
|       |   └── EquipmentCategory.jsx
```

```
|   ├── styles/    # CSS files
|   |   ├── About.css
|   |   ├── Footer.css
|   |   ├── Hero.css
|   |   ├── Home.css
|   |   ├── HomeSearch.css
|   |   └── Navbar.css
|   ├── App.js
|   ├── App.css
|   ├── index.js
|   ├── index.css
|   └── setupTests.js
|
|── server/        # Node.js backend
|   ├── routes/    # API routes
|   |   └── userRoutes.js
|   ├── controllers/ # Business logic
|   |   └── userController.js
|   ├── models/     # Database models (Mongoose)
|   |   └── userModel.js
|   ├── config/     # DB config, environment
|   |   └── db.js
|   ├── server.js   # Main server entry point
|   └── package.json
|
|── .gitignore
```

└─ README.md

└─ package.json # Root package (if managing both client + server together)

6. RUNNING THE APPLICATION

- **FRONTEND :**

```
Cd     client
npm   start
```

- **BACKEND :**

```
Cd server npm
Start
```

- **ACCESS :** Visit <https://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

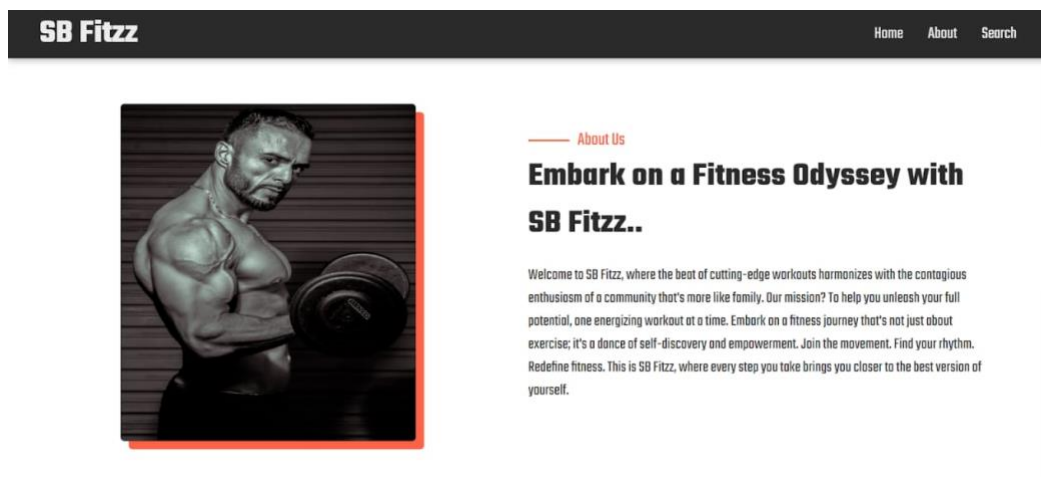
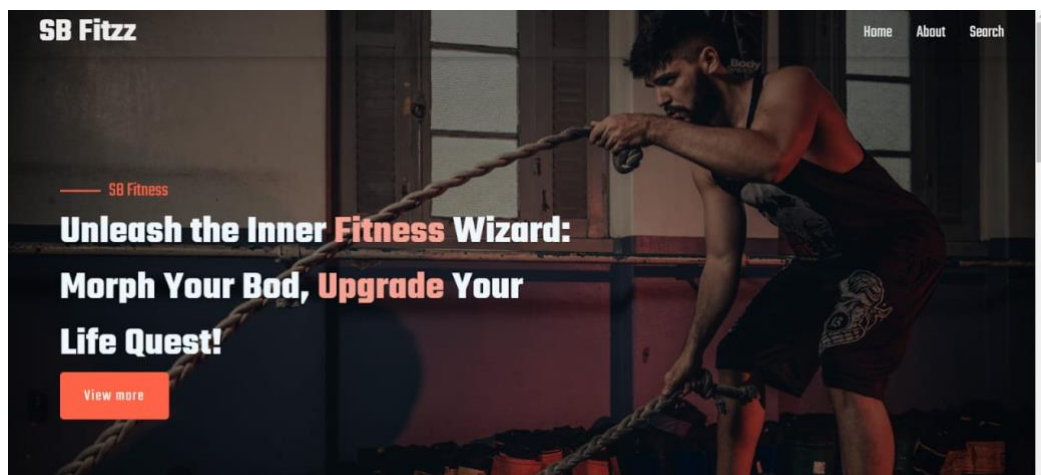
- ✓ Landing Page
- ✓ Freelancer Dashboard

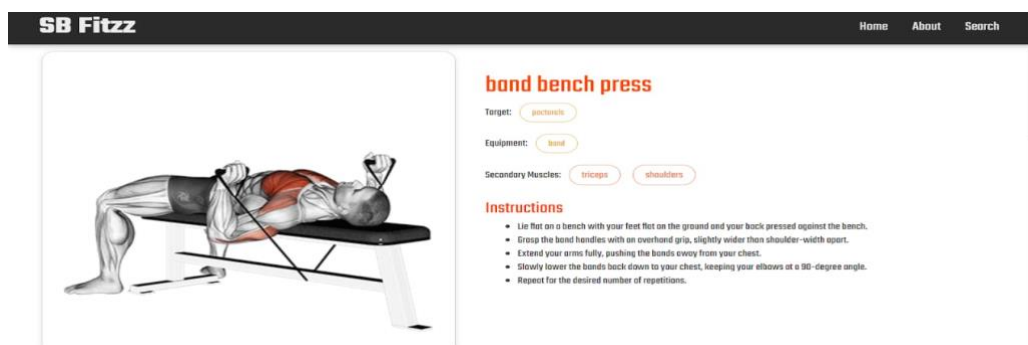
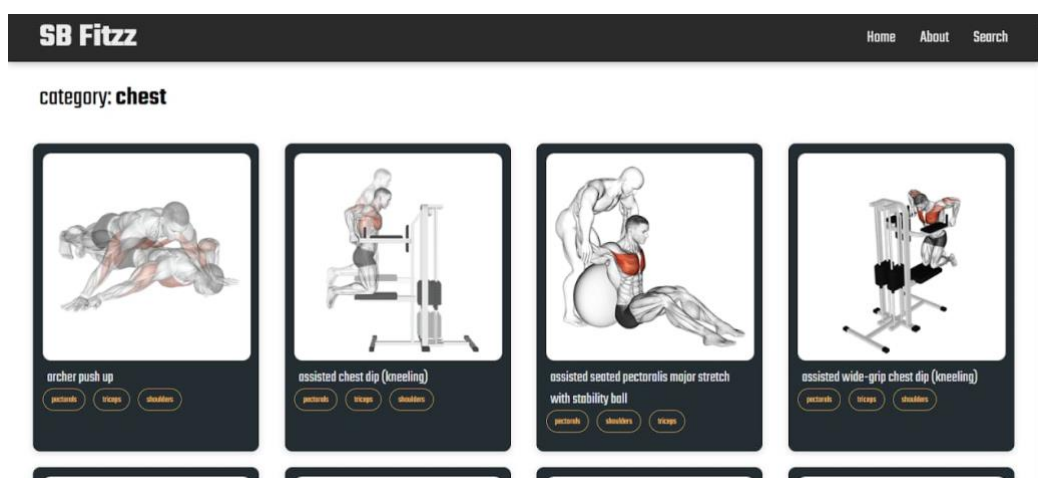
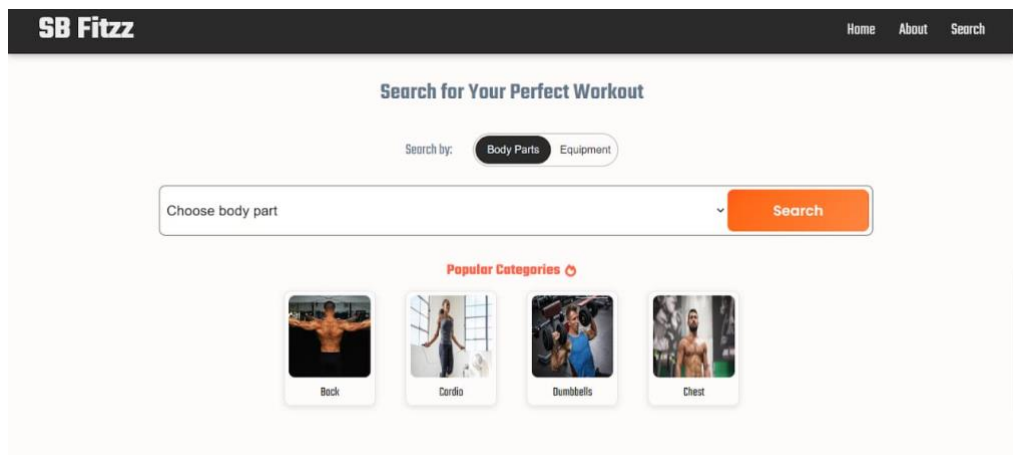
- ✓ Admin Panel
- ✓ Project Details Page

10. TESTING

- Manual Testing During Milestones
- **Tools :**
 - Postman
 - Chrome Dev Tools

11. SCREENSHOTS or DEMO





12.KNOW ISSUES

- Profile Update Delay
- Notification Lag

- Project Proposal Limit
- Dashboard Stats
- Chat File Sharing
- Payment Gateway Error

13. FUTURE ENHANCEMENT

- ❖ Advanced Project Matching Algorithm
- ❖ Enhanced Chat Features
- ❖ In-App Payment Escrow
- ❖ AI-Powered Dispute Resolution
- ❖ Multilingual Support
- ❖ Gamification System