PROJECT DOCUMENTATION
FITFLEX

1. INTRODUCTION:

- **PROJECT TITLE : FITFLEX**
- **TEAM ID   :NM2025TMID37036**
- **TEAM LEADER   : V.YOGALAKSHMI &**
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- **TEAM MEMBERS :**
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2. PROJECT OVERVIEW:

PURPOSE:

        Fitflex is a fitness and wellness web application designed to help users track workouts, monitor progress, access diet plans, and maintain a healthy lifestyle. It enables users to register, log in, and manage personalized fitness goals while interacting with trainers through real-time communication.

FEATURES:

- **User registration and login**
- **Personalized fitness dashboard**
- **Workout and diet tracking**
- **Trainer recommendations and guidance**
- **Chat support users and trainers**
- **Admin control panel**

3. ARCHITECTURE:

- **Fronted: 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, applications, 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<repository-link>

#Install client dependencies

Cd client

Npm install

#Install server dependencies

cd../server

npm install

5. FOLDER STRUCTURE:

In this project, we've split the files into 3 major Folders, Components, Pages and Styles. In the page folder, we store the files that act as page at different URLs in the application. The components folder stores all the files, that return the small components in the applications. All the styling CSS files will be stored in the style folder.

FitFlex/

| - - client/

| |--- components/

```
|     |--- pages/
| - - server/
|     |--- routes/
|     |--- modules/
|     |--- controllers/
```

6. RUNNING THE APPLICATION:

Frontend:

cd client

npm start

Backend:

cd server

npm start

7. API DOCUMENTATION:

User:

- **POST /api/user/register**
- **POST /api/user/login**

Workout:

- **POST /api/workout/create**
- **GET /api/workout/:id**

Diet:

- **POST /api/diet/add**
- **GET /api/diet/:userId**

Chat:

- **POST /api/chat/send**
- **GET /api/chat/:userId**

8. AUTHENTICATION:

- **JWT-basedauthentication for secure login**
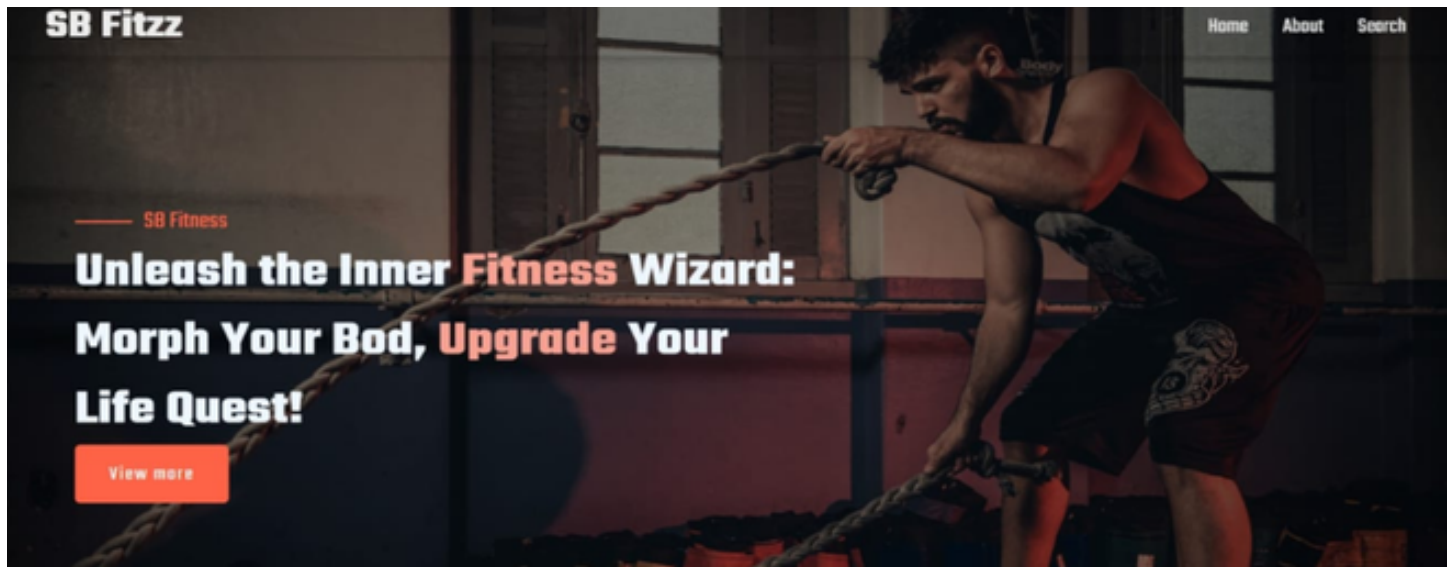- **Middleware protects private routes**

9. USER INTERFACE:

- **Landing Page**
- **User Fitness Dashboard**
- **Trainer Dashboard**
- **Admin Panel**
- **Workout & Diet Tracking Page**

10. TESTING:

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

11. SCREENSHOTS:

Output Pictures:

—— **About Us**

Embark on a Fitness Odyssey with SB Fitzz..

Welcome to SB Fitzz, where the beat of cutting-edge workouts harmonizes with the contagious enthusiasm of a community that's more like family. Our mission? To help you unleash your full potential, one energizing workout at a time. Embark on a fitness journey that's not just about exercise; it's a dance of self-discovery and empowerment. Join the movement. Find your rhythm. Redefine fitness. This is SB Fitzz, where every step you take brings you closer to the best version of yourself.

Search for Your Perfect Workout

Search by: Body Parts   Equipment

Choose body part	⌄	Search

Popular Categories 🔥

Back

Cardio

Dumbbells

Chest

category: **chest**

archer push up
pectorals   triceps   shoulders

assisted chest dip (kneeling)
pectorals   triceps   shoulders

assisted seated pectoralis major stretch with stability ball
pectorals   shoulders   triceps

assisted wide-grip chest dip (kneeling)
pectorals   triceps   shoulders
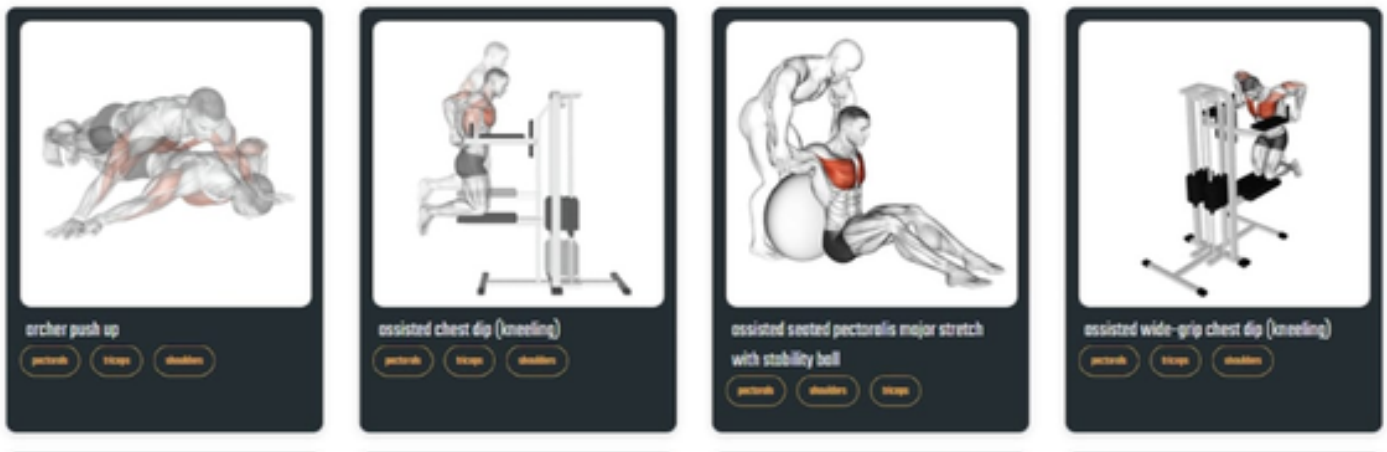
band bench press

Target: pectorals

Equipment: band

Secondary Muscles: triceps   shoulders

Instructions

- Lie flat on a bench with your feet flat on the ground and your back pressed against the bench.
- Grasp the band handles with an overhand grip, slightly wider than shoulder-width apart.
- Extend your arms fully, pushing the bands away from your chest.
- Slowly lower the bands back down to your chest, keeping your elbows at a 90-degree angle.
- Repeat for the desired number of repetitions.

12. KNOWN ISSUES:

- Limited trainer availability
- Basic UI for first release

13. FUTURE ENHANCEMENTS:

- AI-based fitness recommendations
- Mobile application support
- Wearable device integration
- Advanced analytics for progress tracking.