Frontend Development with React.js

Project Documentation

1. Introduction

Project Title: FitFlex: Your Personal Fitness Companion

Team Size:4

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2. Project Overview

Purpose:

- FitFlex is a personal fitness companion web application designed to help users manage their fitness journey. It provides workout tracking, nutrition guidance, progress monitoring, and motivational support in a user-friendly interface.

Features:

- User dashboard with fitness goals
- Workout plans and nutrition tracking
- Progress charts and statistics
- Responsive and interactive UI

3. Architecture

Component Structure:

- App.js: Root component managing routes and state.
- components/: Reusable UI components such as Navbar, Footer, Cards, Forms, etc.
- pages/: Page-level components like Home, Dashboard, Profile, Login/Register.
- assets/: Images, icons, and media files
- styles/: Global CSS or modular styles.

State Management:

- Context API is used to manage global state such as user authentication, workout data, and preferences.

Routing:

- React Router is used for navigation between pages (Home, Dashboard, Profile, Login, etc.).

4. Setup Instructions

Prerequisites:

- Install Node.js and npm before running the project.
- Download: Node.js Official Website
- Installation Guide: Node.js Installation Instructions

Installation:

Clone the repository

git clone <repository-link>

```
# Navigate to project directory
cd fitness-app
# Install dependencies
npm install
# Run the development server
npm start
```

5. Folder Structure

```
fitness-app/
|— node_modules/
|— public/
|— src/
|    ├── assets/
|    ├── components/
|    ├── pages/
|    ├── styles/
|    ├── App.css
|    ├── App.js
|    ├── App.test.js
|    ├── index.css
|    ├── index.js
|    ├── logo.svg
|    ├── reportWebVitals.js
|    └── setupTests.js
```

│— .gitignore

│— package-lock.json

│—package.json

│—README.md

6. Running the Application

Frontend:

- Npm start
- Runs the app in development mode. Open http://localhost:3000 to view it in the browser.

7. Component Documentation

Key Components:

- Navbar: Provides navigation across pages.
- Dashboard Card: Displays user stats and goals.
- Workout Form: Allows users to log workouts.

Reusable Components:

- Button, Input, Modal – reused across multiple pages.

8. State Management

Global State:

- User authentication and profile details.
- Workout/nutrition logs.

Local State:

- Form inputs, UI toggles, modal visibility.

G. User Interface

- Responsive design with a clean layout.

Example UI features:

- Login form
- Dashboard with charts
- Workout input forms

10. Styling

CSS Frameworks/Libraries:

- Custom CSS with modular styles.
- Flexbox/Grid for layouts.

Theming:

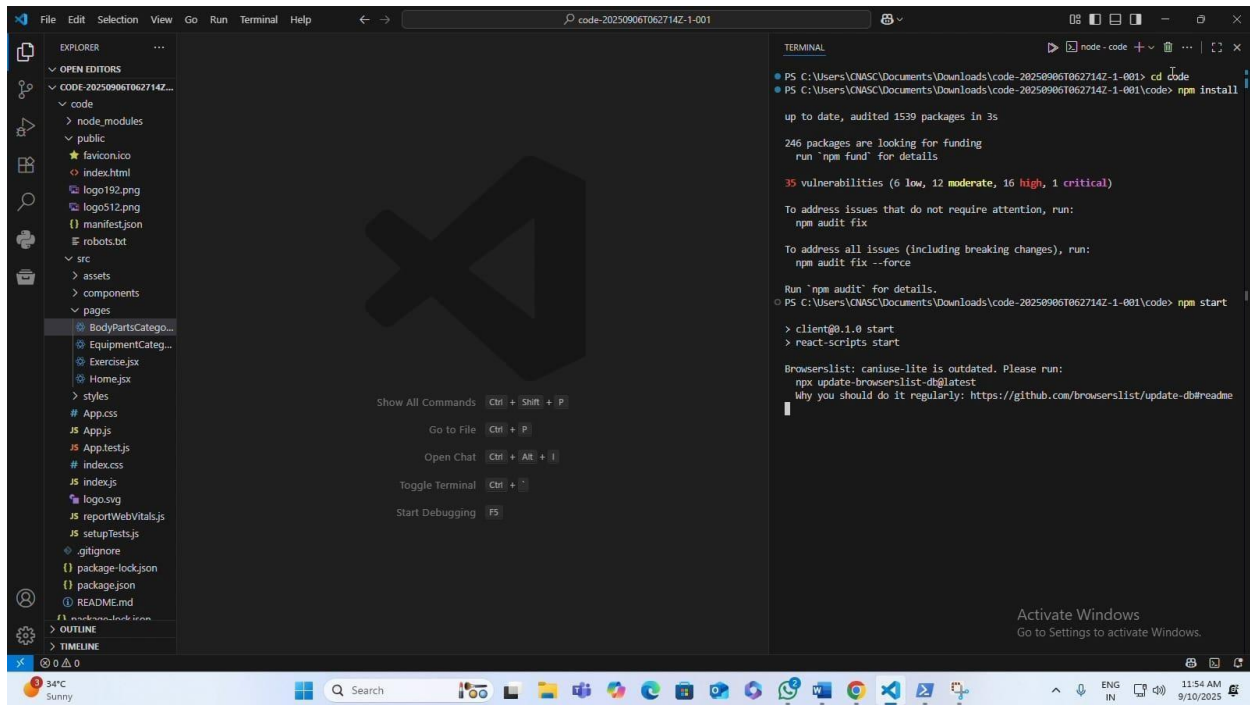- Consistent color palette with fitness-inspired design.

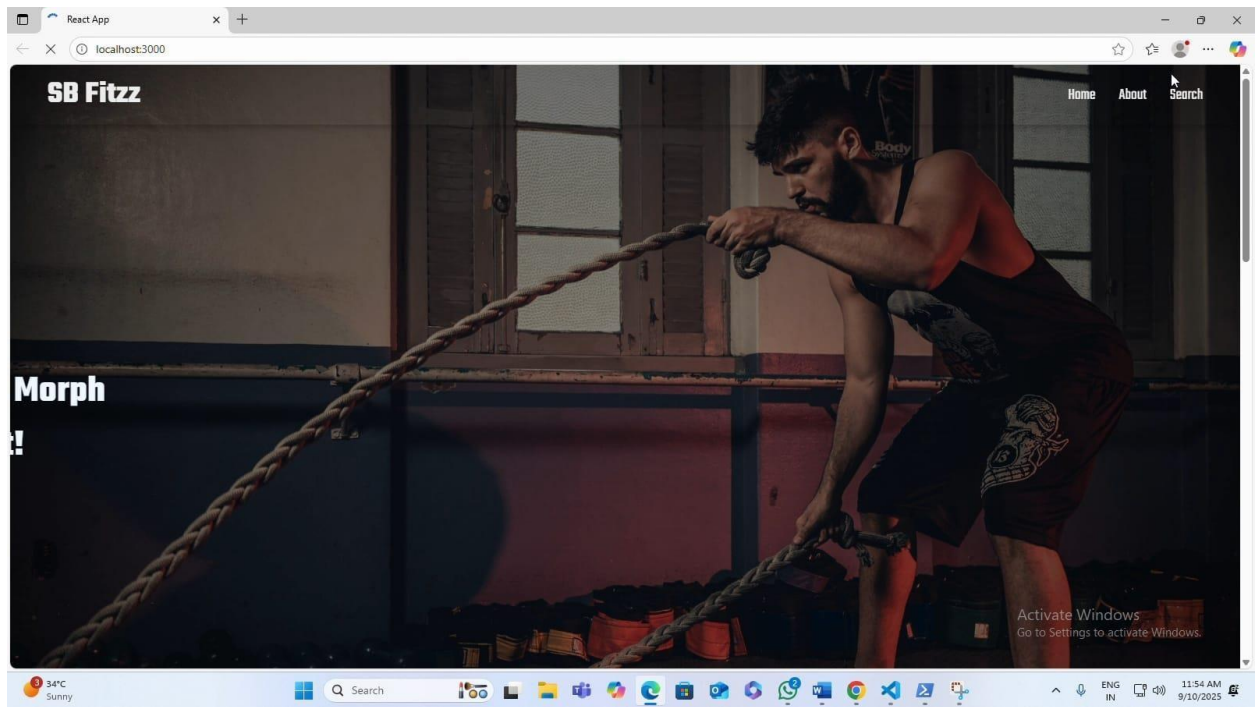## 11. Testing

Testing Strategy:

- Unit testing with Jest.
- Component testing with React Testing Library.

Code Coverage:

- Ensured via Jest coverage reports.

12. Screenshots or Demo

SB Fitzz

Morph

!

Activate Windows
Go to Settings to activate Windows.

SB Fitzz

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exercise img

dumbbell alternate biceps curl

Target: biceps

Equipment: dumbbell

Secondary Muscles: forearms

Instructions

- Stand up straight with a dumbbell in each hand, palms facing forward and arms fully extended.
- Keeping your upper arms stationary, exhale and curl the weights while contracting your biceps.
- Continue to raise the dumbbells until your biceps are fully contracted and the dumbbells are at shoulder level.
- Hold the contracted position for a brief pause as you squeeze your biceps.
- Inhale and slowly begin to lower the dumbbells back to the starting position.
- Repeat for the desired number of repetitions, alternating arms.

Related Videos on Youtube

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category: **back**

alternate lateral pulldown
lats   biceps   rhomboids

assisted parallel close grip pull-up
lats   biceps   forearms

assisted pull-up
lats   biceps   forearms

barbell pullover to press
lats   triceps   chest

barbell bent over row
upper back   biceps   forearms

barbell decline bent arm pullover
lats   triceps   chest

barbell decline wide-grip pullover
lats   triceps   chest

barbell incline row
upper back   biceps   forearms

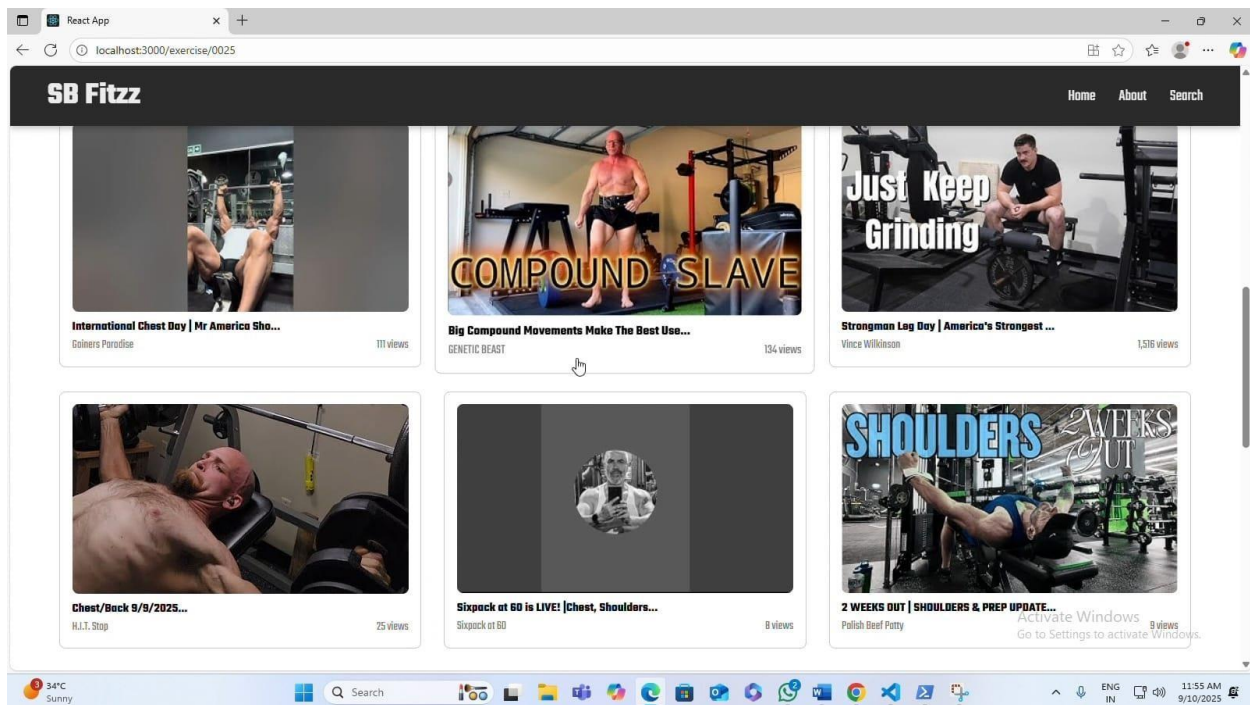**barbell one arm bent over row**
upper back   biceps   forearms

barbell pullover
lats   chest   triceps

34°C
Sunny

Google Drive Demo Link(https://github.com/subhavasu-21/fitflex/blob/main/fitness-app.mp4)

13. Known Issues

- Performance may slow down with large datasets.
- Dark mode not fully supported.

14. Future Enhancements

- AI-based fitness recommendations.
- Integration with wearable devices.
- Community forum for user interaction.
- Gamification with badges and rewards.