Frontend Development with React.js

Project Documentation

1. Introduction

- **Project Title**: FitFlex
- **Team Members**: Sarath Kumar A (Leader), Rajesh N (Member), Subashan M(Member), Manikantan P(Member),Divakar S(Member)

2. Project Overview

- **Purpose**:
  FitFlex is a fitness app designed to enhance workout experiences through an intuitive interface, dynamic search, and a comprehensive exercise library. It aims to provide an engaging platform for users to explore fitness routines, track progress, and stay motivated.
- **Features**:
  - Access to a wide variety of exercises from a fitness API
  - Visual exercise exploration with images and videos
  - Advanced search functionality
  - Intuitive and user-friendly UI

3. Architecture

- **Component Structure**:
  - The app is structured into **Pages, Components, and Styles** folders.
  - Pages handle different views like home, categories, and exercise details.
  - Components contain reusable UI elements such as Navbar, Search, and Exercise Cards.
- **State Management**:
  - The application uses **React Hooks** for local state management.
  - API responses are stored using `useState` and managed with `useEffect`.
- **Routing**:
  - Implemented with `react-router-dom` to navigate between pages.

4. Setup Instructions

- **Prerequisites**:
  - Node.js
  - npm or yarn
  - Git
- **Installation**:
  1. Clone the repository:
  2. `git clone <repo_url>`
  3. Navigate into the directory:
  4. `cd fitness-app-react`

5. Install dependencies:
6. `npm install`
7. Start the development server:
8. `npm start`

5. Folder Structure

- **Client Folder**:
  - `/components`: Contains reusable UI components like Navbar, Search, Exercise Cards.
  - `/pages`: Contains major pages such as Home, Category, Exercise Details.
  - `/styles`: Holds CSS or styling frameworks like TailwindCSS or Bootstrap.
- **Utilities**:
  - Custom hooks for API handling.
  - Helper functions for filtering and processing API data.

6. Running the Application

- **To start the frontend server**:
- `npm start`
- Open `http://localhost:3000` in the browser.

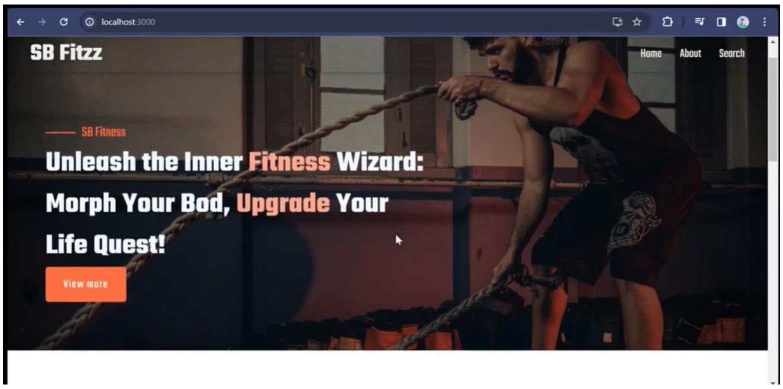
7. Component Documentation

- **Key Components**:
  - **Navbar**: Navigation bar for switching between different sections.
  - **SearchBar**: Allows users to search for exercises.
  - **ExerciseCard**: Displays exercise details with images and descriptions.
- **Reusable Components**:
  - **Button**: Styled button for consistency across UI.
  - **Loader**: Loading spinner for API calls.

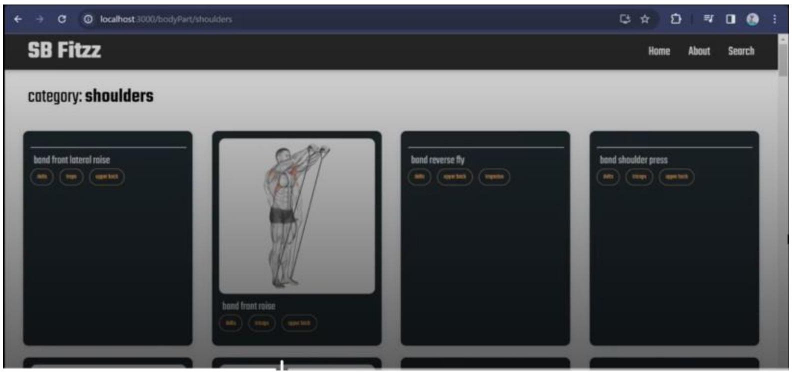
8. State Management

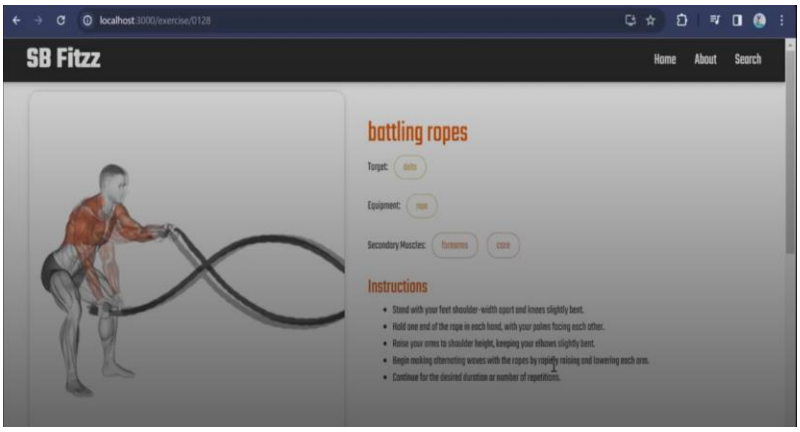
- **Global State**:
  - Not using a dedicated state management library, relying on React Hooks instead.
- **Local State**:
  - `useState` for managing API data and search inputs.
  - `useEffect` for fetching data from the API.

9. User Interface



Unleash the Inner Fitness Wizard: Morph Your Bod, Upgrade Your Life Quest!





battling ropes

Target: delts

Equipment: rope

Secondary Muscles: forearms core

Instructions

- Stand with your feet shoulder-width apart and knees slightly bent.
- Hold one end of the rope in each hand, with your palms facing each other.
- Raise your arms to shoulder height, keeping your elbows slightly bent.
- Begin making alternating waves with the ropes by rapidly raising and lowering each arm.
- Continue for the desired duration or number of repetitions.

10. Styling

- **CSS Frameworks/Libraries**:
  - Bootstrap or Tailwind CSS for styling components.
- **Theming**:
  - Custom theming with consistent colors and typography.

11. Testing

- **Testing Strategy**:
  - Unit tests for individual components using Jest.
  - Integration tests with React Testing Library.
- **Code Coverage**:
  - Ensured by writing tests for key UI elements and API calls.

12. Screenshots or Demo

- **Live Demo Link**: FitFlex Demo

13. Known Issues

- API rate limits can affect data retrieval.
- Some exercises may not have complete details or images.

14. Future Enhancements

- **User authentication** for personalized workout tracking.
- **Workout planner** to create custom exercise routines.
- **Dark mode** for better user experience.