**FitFlex: Your Personal Fitness Companion**

**Introduction**

Project Title: FitFlex

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**Project Overview**

Purpose: FitFlex is an innovative fitness application designed to enhance workout

experiences.

**Features:**

- Search and filter exercises by muscle group, difficulty, and equipment

- Interactive UI with curated workout visuals

- Integration with external fitness APIs for real-time data

- Personalized recommendations and community features

**Architecture**

Component Structure: Navbar, Hero Component, Search Bar, Category Page, Exercise Page

State Management: React’s Context API for global state, useState for local state

Routing: Implemented with React Router Dom for seamless navigation

Setup Instructions

**Prerequisites: Node.js, npm, Git, React.js**

**Installation:**

1. Clone the repository

2. Navigate to the project folder

3. Install dependencies with npm install

4. Start the development server with npm start

5. Open http://localhost:3000 in a browser

**Folder Structure**

/fitness-app-react

■■■ /src

■ ■■■ /components

■ ■■■ /pages

■ ■■■ /styles

■ ■■■ /utils

■■■ package.json

■■■ README.md

**Running the Application**

Command: npm start

Component Documentation

Key Components: Navbar, Hero Section, Search Bar, Category Page, Exercise Page

Reusable Components: Buttons, Cards

State Management

Global State: Managed using React Context API

Local State: Managed using useState hooks

**User Interface**

Screenshots or GIFs of UI showcasing landing page, search, and exercise details

Styling

CSS Frameworks: Tailwind CSS, React Icons

Theming: Light/Dark mode toggle, Custom color schemes

**Testing**

Testing Strategy: Unit Testing with Jest, Integration Testing with Cypress

Code Coverage: Ensured with Jest coverage reports

**Screenshots or Demo**

**Demo Link:**

https://drive.google.com/file/d/1mMqMb41RtroiFbUQ-1ZfeYfWJZ6okSNb/view?usp=drivesdk

**Known Issues**

API rate limits may affect some features

Styling inconsistencies across different screen sizes

**Future Enhancements**

Add a workout tracking feature

Implement user authentication and profiles

Integrate community engagement features