

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