Lift Track

Ian Fischer, Matthew Cooper, Lana Reeves, Sam Hagen, Kirin Kawamoto

Project Description

Our project is a comprehensive workout interface that allows users to tailor their workout plan to their specific needs. It includes

- Exercise Page: Database of exercises with videos
- Tracking Page: Various functionalities to allow the user to track their workouts
- My workouts Page: The users saved workouts
- My plan Page: The users weekly schedule
- Home Page: Introduces the website and displays the users daily workout

Tools Used - Planning & Collaboration

Version Control System (VCS) - Git (★★★★★): A distributed version control system that tracks code changes and supports branching and merging.

VCS Repository Hosting - GitHub (★★★★★): Provides a cloud-based platform to store Git repositories, manage collaboration, and integrate project tools.

Project Tracker - GitHub Projects (★★☆☆☆): Used for tracking features, user stories, and progress with story points and status columns. Helps organize development workflow and team collaboration.

Tools Used - Backend Architecture

Application Server - Node.js (★★★★☆): Executes server-side logic, handles requests, and communicates with the database and frontend.

Framework - Express in Node (★★★★☆): Provides routing and middleware support to build a robust backend structure efficiently.

Database - PostgreSQL (★★★★☆): Stores and manages structured data like workouts, schedules, goals, and user information.

Tools Used - Frontend & UI

HTML	CSS	Handlebars	JavaScript	Bootstrap
★★★☆☆	★★★☆☆	★★★★☆	★★★☆☆	★★★★☆

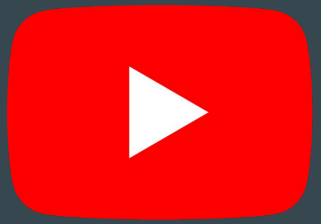
Used to build and style responsive user interfaces, render dynamic content, and handle user interactions.

Tools Used - Development Environment & Deployment

IDE - Visual Studio Code (★★★★★): Provides a lightweight and customizable development environment with powerful extensions for writing and debugging code.

Deployment Environment - Render (★★★☆☆): Hosts the website and automates deployment from the GitHub repository.

External APIs - YouTube, Rapid Exercise DB (★★★★☆): Integrates workout videos and exercise data to enhance the user experience.



Tools Used - Testing

Mocha

★★★★★

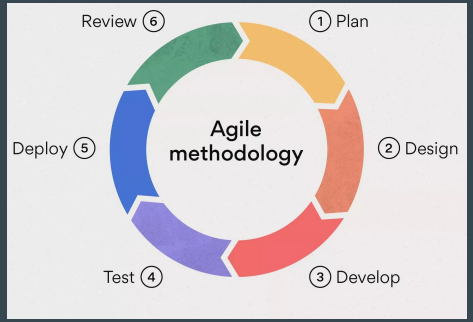
Chai

★★★★★

Automates testing of application features to ensure correctness and reliability.

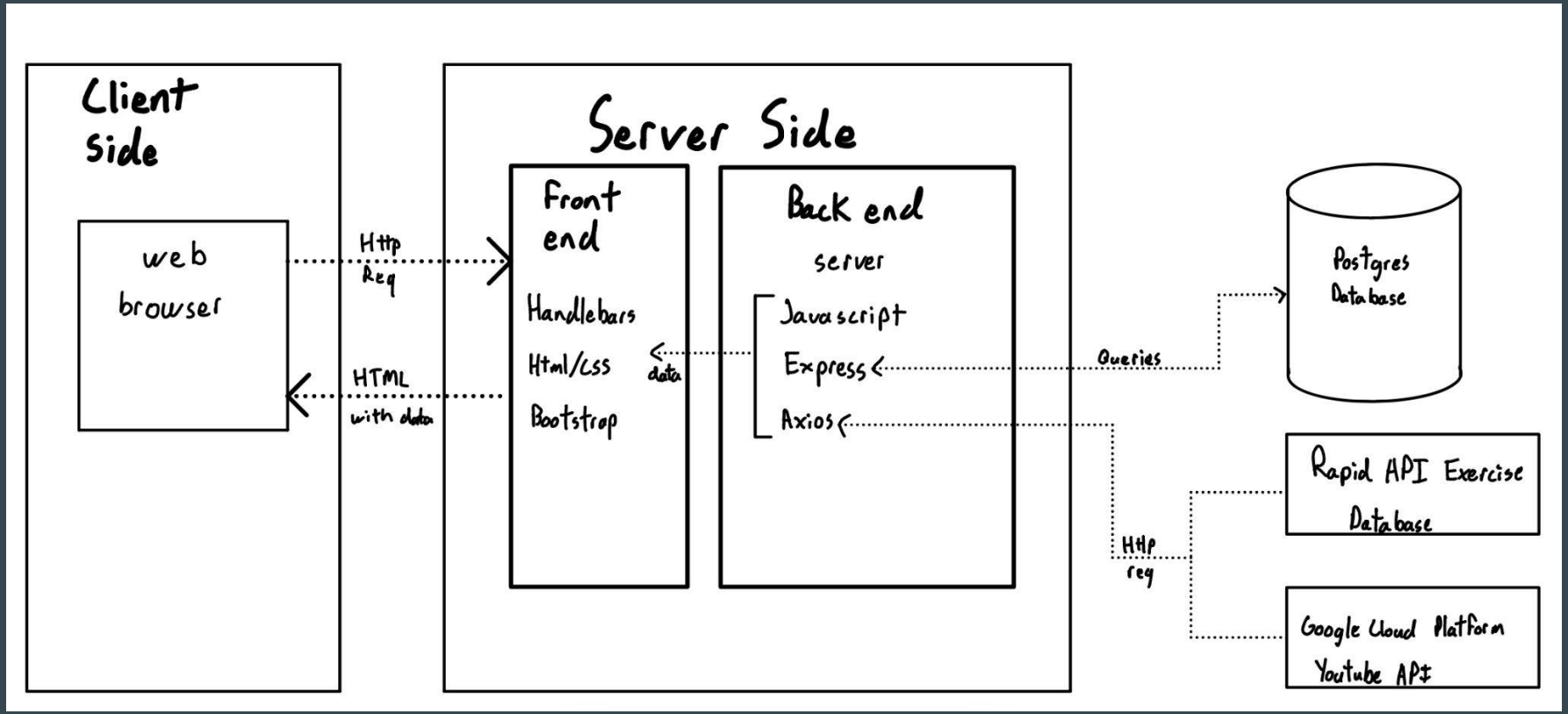
Project Management Methodology

- **Agile Approach** : Iterative development focused on flexibility, frequent updates, and continuous improvement.
- **User Stories** : Defined features from the user's perspective to guide development priorities.



- **Collaboration Tool - Discord** : Used for real-time communication, questions, and coordination.
- **Weekly Meetings** : Regular check-ins to discuss progress, blockers, and upcoming tasks.

Architecture Diagram



Challenges

- API Limits
  - YouTube API
    - Limited to ~6 video calls per day
    - Used sparingly and created two API keys to extend usage
  - RapidAPI: Exercise DB
    - Limited to 600 calls/month
    - Still used it on the Exercise Page for the GIFs
    - Converted the data into a database for the My Workouts page to be able to create workouts with the data, but limit API calls
- Images
  - Wanted a diverse set of images, but difficult due to consistency, pricing, and quality.
  - Solution:
    - Reused images
    - Used more icons

Future Scope

Given more time these are the things we would add to the website:

- Add the ability to search for exercises in the exercises page
- Connect the website to your google calendar allowing you to transfer the scheduled website from the website to the google calendar
- Being able to interact with other users

Demo

Demo Link: Here

Questions?

Thanks