Bryan, Jeremiah, Ross, Nafisa, Justin

Initial Project Proposal:

We would like to develop an Online Fitness App that will help individuals accomplish their fitness goals. Our app will serve as a fitness guide and monitor for experienced athletes, beginners, and anyone else who is trying to achieve a healthier lifestyle. Our app will help provide support throughout every part of their fitness journey. Through a user-friendly interface, it will provide access to a diverse collection of workout routines, from strength training to calisthenics, complemented by comprehensive nutritional guidance. Users will also be able to create profiles, set fitness objectives, and monitor their progress. Our app will also focus a lot on personalization. Users will have the ability to create profiles tailored to their individual needs and objectives, enabling them to track their fitness journey with precision. They will also create or join a fitness community through forums and real-time interaction with experienced trainers. We think human interaction will help provide motivation and support, and this is very important for our fitness platform.

Our online fitness training app aspires to be accessible, enjoyable, and effective in the art of fitness. Our app will start off by using exercises that do not need equipment. We will have a section dedicated to exercises and programs that use equipment, but we will start off assuming everybody is a part of the calisthenics gang. For the program and hardware parts, we plan to use Java and its associated technologies. We may also need to use different web-based tools for building the user interface and front-end components of our app. We will employ Java Server Pages (JSP) to build the web-based component of the app, while HTML, CSS, and JavaScript will take center stage for crafting the user interface and frontend components. The same will apply for the backend, data storage, and server components of our project. In terms of hardware, we will use our reliable PCs for development purposes. We would also like to make our app cross-platform compatible for Android and iOS devices.

Our Online Fitness App is not just about exercise routines and nutrition plans, we seek to empower individuals to take charge of their health and well-being. Our app will become a companion on the journey to a healthier life. For beginners, it provides a welcoming entry point into the world of fitness, guiding them with easy-to-follow workouts and nutritional advice from live professionals. For more experienced athletes, it offers a platform to refine their training strategies and stay motivated through interactions with peers and trainers. Moreover, our app transcends the boundaries of time and place, making fitness accessible anywhere, anytime, whether you're in your home, at the gym, or on the go. It's a comprehensive fitness solution that adapts to your goals and lifestyle to provide maximum flexibility.

WRSPM analysis of the chosen problem:

**World Assumptions:**

Users have access to smartphones, tablets, and computers with internet connectivity.

Users can install the app and download any updates that are needed.

Users will have a basic understanding of technology.

Users will follow all health and safety advice related to fitness.

User will have a desire to pursue their fitness goals.

The app will comply with data protection regulations.

**User Requirements**

Users expect a user-friendly interface that is easy to navigate.

Access to different workout plans, videos, and the option to create your own plan with recommendations.

Ability to track progress.

Users will have real-time feedback, and social interaction through features like community forums and leaderboards.

Ability to make a profile with all the necessary information.

Schedule meeting times with trainers.

User authentication process.

Leave reviews and recommendations for trainers.

Cross-platform compatibility.

Nutrition and meal plan options/recommendations.

List of all possible exercises with an explanation or video of how to complete them.

Personal recommendations and customization based on the user's goals

Reminders to notify users when they need to exercise

Offer health assessments and relatively useful advice

Offline access

Technical support

Program and Hardware:

**Program:**

(IDE, JDK): IntelliJ IDEA or NetBeans for all our main coding and debugging.

Java Framework: Java Server Pages (JSP) for building the web-based component of the app.

Frontend Parts: we can use HTML, CSS, and JavaScript for building the user interface and frontend components. Java will be used for the backend components of the project.

Database: For our app, we may use a database like Apache Derby, H2 Database, or SQL.

Servlet: we can use servlet containers like Apache Tomcat for Java Servlets and JSP pages. This is a lightweight server that can run Java web applications.

**Hardware:**

Web Server: We can use Apache Tomcat for hosting Java-based web apps.

Will need a PC to develop our Java application.

Will need both an Android and an iPhone to test our app since we want to make it compatible with those devices.

Backup and Data Storage: We’ll need a basic data backup and storage solution, which can be a PC or cloud storage.