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Project Proposal Report

We are creating a mobile app called FitQuest that is a unique social media platform that blends the world of fitness and gaming together. The app will retain core features from traditional social media such as friend requests, direct messaging, customizable profiles, and status updates. Additionally, the app will allow users to engage in friendly competition with leaderboards which will allow users to earn XP and HP based on their activity and engagement. As users progress through their fitness journey on our app, users will also be able to unlock achievements and track significant milestones. To help aid users' fitness goals, we will also include a feature for tracking dietary stats and allow users to share their healthy recipes.

We are hoping that FitQuest will be the solution to making living a healthy lifestyle more engaging and rewarding. Gamifying the fitness experience provides a fun way to set and monitor goals, encourage consistency, and celebrate milestones. FitQuest will allow for instant gratification to help boost morale and drive to continue living a fit and healthy lifestyle. FitQuest will engage users in friendly competitions with other users which will motivate users to push themselves. The goal of FitQuest is to encourage consistency in living a healthy lifestyle as well as building a sense of community with like minded individuals.

We will be incorporating an API, in particular, the Google fit SDK which will allow for tracking a variety of things such as steps counting, physical activity recognition, heart rate measurements, and calorie burn estimates. By tracking these things we will be able to provide

our users with a comprehensive overview of their daily health and fitness activities. Furthermore, we will be able to reward these activities with XP and achievements which will serve as tangible markers of progress, similar to the same sense of accomplishment you receive from video games.

We will incorporate fragments in the app for reusable components in the app. A user profile can be split into tabs such as "About," "Posts," and "Achievements" while exercise/food logs can be divided into "Daily," "Weekly," and "Monthly" and all these tabs can be fragments.

A user will need to be able to navigate through our app easily, therefore we will incorporate use of a navigation bar. The navigation bar will be able to go to "Home" which will take a user to a page where they will be able to see recent posts or updates by other users, challenges they can join and challenges they're taking part in. The navigation bar will also allow a user to go to an "Activity" page, where the user will be able to see an overview of their activity using the app. This overview can include things such as logged exercises, dietary stats, and milestones. The navigation bar will also allow for a user to go to a "Notifications" page where a user will be able to see recent notifications from the app. These notifications can include information about the app, new friend requests, leaderboard updates, comments and likes on posts the user is active on, and recent achievements earned.

On user profiles we will have HP and XP progress bars displayed to showcase progress of the user's fitness and nutritional journey. HP will correspond to the nutritional/healthy lifestyle journey such as calorie and nutrition tracking, sleep tracking, water intake tracking, sharing healthy recipes, and meal plans. XP will correspond towards the fitness journey where users will be able to log fitness workouts and compete in challenges to earn XP and increase their levels. Users will be awarded distinctive badges or trophies, which will be showcased alongside their XP and HP bars on their profile."

Some additional android concepts we currently plan to implement are firebase, unit testing, ViewMode/LiveData, and notifications. We will be using firebase for user authentication which will allow users to create accounts and login for their personalized experience. We will also use firebase to store and display user generated content. Unit testing we will be able to test out calculations of XP, HP, and levels for the user. ViewMode/LiveData will be able to store and manage user's profile data such as username, profile picture and whatever else they might list in their profile. It will also be able to hold stats such as XP, HP, levels, and achievements. For notifications we will incorporate exercise/nutrition reminders, inactivity alerts, and standard social media alerts such as likes, comments, new posts.