**Get Fit Right**

**Group 12: Edgar Martinez, Rameez Baig, Zakee Jabbar, Ahmed Khan**

**Product Summary**

As a refresher our product consists of a fitness simulator thats main goal is to be a virtual spotter: the application’s job is to notify users when working out if they have improper posture, provide recommendations based on various factors, and to help the user avoid unnecessary injuries. The product will accomplish this task by having the user download the application on his/her mobile device to maintain the users workout log and associate the workouts performed to that particular user. This application will then allow the user to select a workout and will notify the user to place their phone in an optimal location, as to capture the user's workout and provide real time analysis using the users body data points. As to how the product will perform the analyzes, the application will then compare the user’s data points with posture data points of the workout being performed correctly. Based on that analysis the application will then notify the user through his/her screen whether or not they are performing that exercise correctly.

**Functionality Description**

Based upon some of the products use cases the product will allow the user to see all previous workouts associated with their account, perform/log new workout, and also see realtime analysis of those workouts the product will have to maintain two different databases. One of those databases will be known as “Workout Logger” and that database will keep all information on previous workouts like the number of sets, repetitions, and weights used in the exercise for the user to see. The other database will be known just as “Workout” and it will contain the workouts and the posture data points, so that we are able to perform the live feedback analysis on the users phone. As such, the product must allow the user to create an account, so that it can associate the workouts performed with that user. Once the requirements are satisfied the application will allow a user to either select an exercise or view previous exercises. Either one of this decisions requires the product to communicate with the “Workout Logger” database while the option to select an exercise requires that it additionally connect to the “Workout” database so that the user can select an exercise that they wish to perform. If the user selects the latter option, to perform a workout, the application will then use the phones camera and notification systems to capture video of the users workout for analysis and to notify the user of any improper technique in the exercise.

**Important Requirements**

Additionally the application will have several other requirements in order to best facilitate growth, maintain health goals, and to help reduce potential injuries. One of the most important requirements the application must have is speed and accuracy. The application relies heavily on the user’s smartphone camera and a strong internet connection to communicate with the database and the machine learning application program interface. Speed is the most important to the successful implementation of the application because the applications purpose is to provide real-time feedback to the user. On top of that, accuracy is crucial when involving exercising. Too much weight in an exercise can lead to injury, and too light of a weight will not be beneficial. The application must be precise when return feedback, but also accurate in order to avoid injuring the user.

In addition, another requirement that the designers feel is crucial to the mission of the product is to provide a very enjoyable user experience. The application should be designed in a way that is appealing to all users, but without being too flashy with unnecessary items, or even advertisements.

On top of that, the target population is not a niche demographic within the fitness world. The Get Fit Right application must be designed for professional athletes and novice users as well. In doing so, not only can the application target into a specific body part for a professional athlete, but also help teach a beginner the ropes. Expanding upon that even further, the application should be easy for all ages and genders to use. It’s recommended that every person exercises at least thirty minutes a day, and therefore the product should be suitable for all ages and adaptable for all genders.

After listing these very crucial requirements, the point is made as to how these can actually be tested. Having a product that is “enjoyable” is completely subjective. In order to put a quantifiable amount for testing, the product will go through multiple test studies. For example, giving a demo user interface design to various individuals from different ethnic and cultural backgrounds can greatly display what design patterns are more favorable over others. In addition, once the product is released it must also track various quota percentages of daily users. For example, 80% of returning users must be able to start an exercise during his/her fifth time using the application at a 30% speed increase from the first time he/she used the application.

WHAT THAT MOUTH DO!!!!