

Workout Movement Tracker App Description

Shreya Boyapati, Ayesha Quadri Syeda, Dat Huynh, Sarthak Patipati

The Workout Movement Tracker App is an app that supports and promotes health and fitness. It will be utilized primarily by people who are interested in exercising and getting in shape and those who want the benefits of a personal trainer without having to actually sign up for personal training. The application will track the user's movements in real-time during exercising and analyze their form. The user will be able to check their form and have it corrected by the app. This will ensure that they are performing the exercises correctly, which will help prevent injury and maximize the benefits of the exercise. The application will also give the user personal recommendations based on their stated fitness goals, body type, and exercise preferences. This would allow the user to gain access to a personalized workout that is exactly suited to their needs.

The main purpose of this project is to help people who are interested in leading a healthier and more active lifestyle. This app will make it much easier for someone to figure out a fitness program that suits their specific needs. It can be useful for a person of any age group and level of activity. The primary businesses that would benefit from this application are businesses that regularly interact with people who regularly exercise - gyms, personal training businesses, and sportswear companies. The business to be done in this instance would be with customers seeking out exercise-related help and looking for a convenient app to fulfill this need. Thus the primary goal of this project is to provide users with an easy way to incorporate exercise into their lives. To measure user satisfaction with the app, a premium subscription model and referral bonuses will be offered, as well as an opportunity to rate the app. An average rating of 4 stars would be considered a success.

The scope of the work is described as providing a personal trainer/guide service that the users need to pursue their fitness goal. The work generates recommendations and feedback for exercise and nutrition guides based on the user's performance and goal. The current situation for client work is the application will be published on application stores for the user. User comments and feedback are reviewed by developers. Developers can use this information to provide updates for any errors. The context of work includes the user, nutrition, exercise performance and finance. These environments interact with the application to create a beneficial result for the user. At the moment, there is no application that can track our real-time movement to provide feedback for the exercises. However, regarding the nutrition and workout plan, the competition is MyFitnessPal. It is an application that acts as a dairy to record the user's macronutrients and calories.

The scope of our product is to provide a convenience and affordable "personal trainer" application that can guide the users throughout their fitness journey. The application can generate a personalized plan based on the user's goal and information. During the exercise, the application tracks the user movements to provide guidance. The user can avoid injuries from exercising incorrectly. The application also constructs appropriate meal plans based on the user's goal and information. The application can analyze user progression to update the user's plan. The application can extract exercises and meals from the databases.

The primary client is the fitness industry, which will provide guidance and feedback to ensure the product's long-term success since they focus on attracting more customers and generating revenue. Three groups of customers will buy the product: Fitness centers, Physical trainers/coaches, and Independent exercisers. The three groups of hands-on users are Beginner exercisers (primary users), Experienced exercisers (secondary users), and Expert exercisers (unimportant users). The original developers handle the maintenance and upgradation of the product. Other stakeholders include Fitness and Technology experts who would provide useful knowledge during product development. However, the users must also participate fully in the development process to provide feedback for improvements.

The product will be a mobile application available on the App Store and Google Play Store while requiring a motion detector. As such, it will be implemented on iOS or Android OS devices with a built-in camera. The product will use partner applications such as Microsoft Excel and the Camera application. The primary anticipated workplace environments include indoors (gyms, homes, etc.) and outdoors (beaches, backyards, etc.). Although there are no set schedule constraints, the ideal time to release the product is at the beginning of the year since most gyms see increased demand, leading to more interest and sales of the product. Budget constraints would not impact the product's development since most technologies used in the development are available in the market. At the same time, the developers are the greatest resources for the project.

It is important to define some important naming conventions used during the production and usage of this application. Everyone has a different perspective of what a word might mean in the context of the situation. The programmer would have a different meaning for a certain word than the user; they could both have a different definition than the sales person. For example, spot doesn't mean a certain location but rather refers to the person who acts as a safety measure when another person is heavy-lifting weights that could prove to be too much at a moment. Another example would be weight. It could be confusing for the user whether the application is referring to the user's weight or the weight to be lifted. The solution is, when the application simply asks for weight, it is referring to the weight of the user. When the application wants to refer to the weight to be lifted it would simply use the format, <Name of Equipment> + weight. There are many more words to be specified to make the lives of both the user and the production team easier.

The Workout Movement Tracker Application would need to align by the laws regarding applications. Some major points being, policies regarding the user's personal data need to be secured and clearly addressed. In accordance with the laws for applications, parents would be able to change the personal information regarding their children, when children are the users of the application. The application developers are required by law to create and inform ways to safe keep the users data. Furthermore, there are a few assumptions made in the production of the application. These assumptions would align with the application production and the expertise and equipment the user or client would require in order to use the application. One key assumption would be that the user has access to a camera to scan the body of the user. Another assumption would be that the user is in a space big enough to workout and the camera to scan. Lastly, it is assumed that the laws pertaining to applications would stay the same throughout the course of production and usage of the application.