

Software Implementation and Testing Document For Group 3

Version 1.0

Authors:

Cathy Yue

Joao Valente

Damon Akins

Andrew Perez-Napan

Nikolas Hernandez

1. Programming Languages (5 points)

For this entire project, we decided that the Java programming language would be best, as we will be using the Android Studio IDE to build our workout application. Android Studio only allows users to program in Java or Kotlin and most of the team members have more experience using Java as the primary language.

2. Platforms, APIs, Databases, and other technologies used (5 points)

List all the platforms, APIs, Databases, and any other technologies you use in your project and where you use them (in what components of your project).

We will be embedding youtube video links within the workouts tab of our application. The user will be able to view the individual exercises for their workout routine that day. Next to those individual workouts, there will be a small viewing window with an embedded video, showing users the proper way to complete that particular exercise. To embed the videos we will use Youtubes' API.

To synchronize the users' workout plan to their calendar, we will use the device's internal clock or the device's calendar app.

For storing user data we will store it mainly on the individual users' device. As a long-term goal, we will use Back4App is a cloud-based data storage utility.

3. Execution-based Functional Testing (10 points)

*Describe how/if you performed functional testing for your project (i.e., tested for the **functional requirements** listed in your RD).*

No functional testing has been conducted as we have recently completed the design of our application. However, we will begin coding immediately to implement and test these functions.

4. Execution-based Non-Functional Testing (10 points)

*Describe how/if you performed non-functional testing for your project (i.e., tested for the **non-functional requirements** listed in your RD).*

No non-functional testing has been conducted as we have recently completed the design of our application. However, we will begin coding immediately to implement and test these functions.

5. Non-Execution-based Testing (10 points)

Describe how/if you performed non-execution-based testing (such as code reviews/inspections/walkthroughs).

We have walked through the design of our application, as we want to ensure that the app's interface is user-friendly, simple to navigate, and easy to understand. We've discussed in great detail how the app should execute from the time it is opened until the user decides to exit it. In our design template, we have laid out each individual tab within

the app, also with details of each tabs' individual pages needed to ensure that tab works properly.