

## Test Plan

### Validation

Validation testing will be conducted to assess the overall quality of the app. A group of 10 users will be selected to carry out manual test on their devices to evaluate the application in the following four areas:

#### 1. User interphase

Users will be asked to evaluate the user interphase of the app. This includes using the top scroll bar, making sure text is appropriate size, pictures are easily viewable, etc.

#### 2. Design

User will be asked to evaluate the overall structure of the app. This will include assessing the design and structure of the list view as well as the product page.

#### 3. Navigation

Users will be asked to evaluate their experience with navigating through the app. We will be focusing on points such as, are users able to navigate to the product page and add products to their cart? Can users navigate back to the main screen? We want to ensure that users do not get stuck on a single page without a way to navigate either forward or back.

#### 4. Usability

Users will be asked to evaluate the overall ease of use. This includes the level of complication involved with using the app and whether they would recommend the app to friends.

We will ask the similar questions as in previous testing, but with the new version of our Android application. The goal is to calculate new averages and see how they have improved to previous values for the Android WebView app.

1. On a scale of 1 to 10, (1 being extremely difficult, 10 being extremely easy) how easy to use was this application?
2. On a scale of 1 to 10, (1 being extremely difficult, 10 being extremely easy) how difficult was it to navigate through the app?
3. On a scale of 1 to 10, (1 being extremely difficult, 10 being extremely easy) how difficult was it to add an item to your cart?
4. On a scale of 1 to 10, (1 being terrible design, 10 being great design) how would you rate the overall design of the app?
5. On a scale of 1 to 10, (1 being extremely irrelevant, 10 being extremely relevant) how relevant was the product information provided?

6. On a scale of 1 to 10, (1 being competes poorly, 10 being competes very well), how well does this application experience compare with competing ecommerce sites like Amazon or eBay?
7. On a scale of 1 to 10, (1 being not recommend at all, 10 being absolutely recommend), how likely would you be to recommend this application to others?

## **Verification**

Verification Testing will be carried out to assess the overall functionality of the app and identify any bugs. Areas to test include:

### **1. Installation**

This process will cover successful installation and uninstallation of the app on multiple devices and operating systems. It will also evaluate the amount of time the app takes to install, amount of space it takes up on the device, and if it interferes with other applications.

### **2. Basic Functionality**

Testing basic functionality will focus on ensuring that minimum requirements are met. Basic functionality includes: application opens successfully, application loads the correct products, images display, application closes successfully, etc.

### **3. Performance**

Test the performance behavior of an application in situations that are less than ideal; this includes poor network coverage, low battery, low available memory, incoming phone call, etc.

Verification testing will be carried out manually and through automated test. For manual testing, the application will be installed on hardware devices by downloading and opening the APK. Once the application is installed, we will test the functionality of the application and how it performs under the specific conditions listed above.

Android Studio supports automated test projects. We will use Android studio to create test projects and run them on the virtual emulator. Since the Android Virtual Device can be configured and customized, the test projects will be used to run multiple times under different conditions.