  
 Mobile Testing for Android

**Test Strategy**

**Revision History**

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| --- | --- | --- | --- |
| Date | Version | Author | Description |
| 2019-02-12 | 1.0 | Wilfredo Iglesias | Freshworks Used.ca app for Android |
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# 1 Scope and Limitations

* Testing Scope
* Limitations and Exclusions

**Testing Scope**

Release 2.0.52 Used.ca app will be tested against Android 8.1.0 on a Nexus 6p phone.

Functional testing will be performed verifying the use cases based on the requirements document.

Installation will be done on the device via usb utilizing an automated framework which will be discussed later in this document.

**Limitations**

At this time only Android devices will be tested due to hardware limitations, and although emulation is possible for layouts, to provide better and accurate coverage, it is best to test natively on iOS platforms.

The accompanying site UsedVictoria will be out of scope for these activities as our test efforts will be on the Used.ca mobile app for Android.

Version 2.0.52 of Used.ca is in production and as such, our testing scope will be limited as to not populate the database with test data in a production environment.

**Exclusions**

The following items are out of scope for this phase of testing and include:

* Api testing
* Database Testing
* Load Testing
* Performance testing
* Security Testing
* Test account/profile creation

# 2 Test Approach

It defines

* Roles and responsibilities of each team member
* Types of Testing ( Load testing, Security testing, Performance testing etc.)
* Testing approach & automation tool if applicable
* Adding new defects, re-testing, Defect triage, Regression Testing and test sign off

**Approach**

The Testing approach will be to verify the stability and usability of the Used.ca app for Android to validate base functions to insure the information presented is accurate for user and data entered.

**Roles and Responsibilities**

Each QA team member will be testing one assigned area of the Used.ca app, which will give ample opportunities to find any defects and for them to be addressed.

**Automation Tools**

A subset of tests will be automated utilizing Appium which is an OpenSource Automation framework specifically designed for Mobile testing, and the java programming language to write the tests, TestNG as the framework in which executing and reports are generated.

**Defect Reporting**

During the execution of the automated tests Pass and Fail conditions are generated, and an html format is available as well as the console output,

These defects will be entered into Jira as the Type Bug, and linked to the user story or requirement it failed against in testing, and assigned to the Product Owner to delegate to the developer.

A defect Triage will happen daily for no longer than 30 minutes to insure everyone is on the same page regarding progress, and prioritization of defects found.

**Regression Testing**

Towards the end of our testing cycle, one pass of regression testing will be performed by all team members, to validate that no new bugs have been introduced to the application, and previous existing features and functionality perform as intended.

**Sign Off**

Upon completion of the testing activities, defects have been prioritized and closed, or deferred based on low priority impact, a sign off from the Product Owner, and QA will be provided indicating that release 2.0.52 has been tested, high and medium priority bugs closed, low priority deferred. and regression testing is complete.

This will be communicated to all involved parties, and we can celebrate our success!

# 3 Test Environment

Our test environment will consist of the following:

* Android Nexus 6p configured to connect to desktop/laptop via USB
* Android SDK
* Android version 8.1.0
* Eclipse development environment (Community Edition)
* JavaSE8 SDK runtime environment 1.8.0\_162
* Windows desktop or laptop
* Used.ca version 2.0.52 for Android
* Appium for Windows
* Appium java client v7.0
* Selenium drivers for eclipse
* TestNG for eclipse

# 4 Testing Tools

Our testing tools will consist of Open Source tools, not only due to no financial cost to the project which would affect budgeting, but also the amount of support available, and it being open source we can make modifications to suit or needs.

Setting up the environment will initially be time consuming, but once it is configured, it is very straightforward to use.

Having a backup of our settings will safeguard against large spikes in downtime to reconfigure, and these restore points can be stored onto a network share and retrieved with a last known good state.

Our code for Appium will be stored in a version control system github which is a private account and only accessible by team members.

# 5 Release Control

Release management will handle deployment of our signed off version into production.

They will coordinate with QA and development on any issues during the deployment process.

A minimal amount of testing of the post released application will be conducted as a sanity test by QA which will include verifying the correct version apk has been released.

Release notes will be provided to the business and product owner indicating what has gone into the current release of Used.ca app along with any known issues, and workarounds if applicable.

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# 6 Risk Analysis

* List all risks that you can estimate
* Give a clear plan to mitigate the risks also a contingency plan

Given the scope of our testing, there is a risk to performance of the database by way of Api endpoints which were not tested to verify how error handling would occur if an increased load occurs

Security testing as well as performance testing has not taken place for this release just yet, and is a known risk.

To mitigate the issues, testing around these areas will be performed post release, and any and all issues immediately addressed, resolved, and tested.

Thus, a newer version will be patched into the existing release.

Database tuning will be performed by the dba’s should the need arise.

# 7 Review and Approvals

* All these activities are reviewed and sign off by the business team, project management, development team, etc.
* Summary of review changes should be traced at the beginning of the document along with approved date, name, and comment

Each activity upon completion will require sign off by the business team, the product owner, development and release management.

In order to have traceability a summary of review of changes will be documented at the beginning of each document with an approval date, name and any additional comments.