Augmented Reality Game

Test Plan

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Team Name: Project Pals

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| Version | Date | Who | Comment |
| V0.0 | 10/04/15 | Clayton Cuteri | Original Test Plan Draft |
| V1.0 | 10/07/15 | Clayton Cuteri  Eric Peralli  Connor Heckman | Updated Draft |
| V2.0 | 10/07/15 | Connor Heckman | Added Links to other documents. Reformatted and edited some grammar mistakes. |

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**SECTION 1 – Introduction**

**Overall Objective for Software Test Activity:**

The overall objective in testing our software is to determine whether it has functionality, user friendly GUI, and networking. We will want to make sure that the software is actually able to work as an AR game. We also plan to ensure that the GUI has easy navigation so that users are able to setup up the game quickly and effectively. The last thing we will test, is the game’s ability to network. For this we will make sure that at least two different devices are able to interact via the game.

**Reference Documents:**

[Concept of Operations](https://docs.google.com/document/d/1x4QyHfMRQdcK_UUwJiVtlEQeu1ca7ca3vmrsmUwGgYY/edit?usp=sharing)

[Project Management Plan](https://docs.google.com/document/d/1_ODvCtTKPSJEnTv0dxVnQx6iGd40UmvQDcgeTsX3Kjo/edit?usp=sharing)

[Software Requirements Specifications](https://docs.google.com/document/d/1bq6qFGaFix2dHopm9GFpDvjj5qe3KKfZXPA6zyiA4v4/edit?usp=sharing)

**SECTION 2 -****Description of Test Environment**

All devices used in testing will be running on an Android OS. We will have developers and friends of the developers using the android devices with the app loaded. We will have people on different Wi-Fi and people using 4G to ensure there are no connection issues with either. This environment is almost identical to the networking needs. The only difference would be the physical distance away from other users once released to the public. This should be negligible with our concept.

**SECTION 3** **- Stopping Criteria**

**If errors are found during testing:**

If we find a bug, we will proceed with one of two options. If the severity of the bug hinders the core functionality of the app, we will discontinue the current test and fix the bug. If the bug does not affect the core functionality, we will log the issue with its runtime state and fix after the current round of testing.

**If no errors are found during testing:**

After a round of testing is completed and without a bug detected, we will examine all possible internal and external interactions between the user, the application, and the environment. This will ensure optimal application performance.

**What is “good enough to deliver”?**  
If a bug is found during a test, the bug will be fixed and we will begin the next round. There must be three consecutive rounds of testing without a bug for our code to be deemed “good enough to deliver”.

**Section 4 - Description of Individual Test Cases**

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| Objective | Description | Test Conditions | Expected Results |
| Observe that the game is able to load, run, and play on a device that has no internet connection. | Open the app and observe that the game can start up. Test that they can launch the high scoreboard to display the record high scores of the local user. | User’s mobile device has no internet connection. | The game should respond to commands as normal, and not attempt to display online high scores. |
| Observe that the game is able to load, run, and play on a device that has an internet connection. | Open the app and observe that the game can start up. Test that they can launch the high scoreboard to display the record high scores of online users. | User’s mobile device has internet connection. | The game should respond to commands as normal, as well as retrieve and display online high scores. |
| Test that the application runs in the background properly. | Open the app, minimize it, and then open it again. | None | The game should suspend the state, and resume from said state once the app is launched again. |
| Test that the application exits correctly. | Open the app, minimize it, and end the process | None | The game should have attempted to save local high scores, and push global high scores to the server before exiting. |
| Test the changing the theme of the application responds correctly. | Open the app, select Themes, then select a different theme than the currently selected one. | None | The game should operate as normal, replacing normal textures with textures appropriate to the selected theme. |