

Test Plan

Scope:

The scope of the test is to find situations where the developed application fails or does not meet requirements specifications. It also tests the compatibility of the application on various devices.

Features to be tested:

- Collision detection
- Avatar swap
- Face Detection
- Objects spanning and motion
- Reward system
- Game Over system

Test Approach:

- Test game on different android versions on separate devices with different screen sizes and aspect ratios.
- Test boundary conditions with face position at the edges of screen
- Test functionality of all features
- Test performance with the fast-moving subjects.
- Test Reward system with large scores.
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Resource Allocation:

Tester	Test
Rakshana Bagavathi	Unit and System Testing
Aneerban Chakraborty	Performance and Compatibility Testing
Rohan Aswani	Integration Testing

Environment:

The tests are performed in a controlled environment on select hardware.

Hardware Used for Unit, System, and Integration testing:

Pixel 6

Android Version: 12

Screen Resolution: 2400 x 1080

Hardware Used for Performance and Compatibility Testing:

Pixel 6

Android Version: 12

Screen Resolution: 2400 x 1080

Processor: Google Tensor

Samsung Galaxy S10

Android Version: 12

Screen Resolution: 3040 x 1440

Processor: Samsung Exynos 9820

OnePlus 6T

Android Version: 11

Screen Resolution: 2280 x 1080

Processor: Qualcomm Snapdragon 845

Tools:

JIRA would be used as a tool for the reporting of Bugs found. Application build using unity as APK would be tested on the devices.

Test Cases:

Id	Test Case	Pass or Fail
1.	Face Detection with the face on the left border	pass
2.	Face Detection with the face on the right border	pass
3.	Face Detection with the face on top border	pass
4.	Face Detection with the face on the bottom border	pass
5.	Face Detection in the middle of the screen	pass
6.	Collision Detection with the face on the left border	fail
7.	Collision Detection with the face on the right border	fail
8.	Collision Detection with the face on the top border	pass
9.	Collision Detection with the face on the bottom border	pass
10.	Collision detection in the middle of the screen	pass
11.	Falling objects on the left border	pass
12.	Falling objects on the right border	pass
13.	Reward system for score 100	pass
14.	Game Over with fireball collision	pass

