

Test Plan

1. Introduction

This test plan contains cases to verify that the core functionality and requirements of the Uber Boggle game. This includes operations that would be vital to the gameplay of Boggle along with requirements that the program must be able to meet in order to provide uninterrupted play.

2. System Overview

The system replicates the standard physical game of Boggle, but to be played on a PC.

3. Features to be Tested

Testing Requirement	System Requirement	Short Description
1	F1a, F1b, F2a	User opens game and new game starts with dice shuffle animation and time restart to 3:00 (180 seconds).
2	F3a, F3b, F4a, N3, N4	User is able to enter any word at or under 16 characters using letters a-z until timer is 0:00 (0 seconds) without lag or crash.
3	F2b, F4b, F4c, F5a, F5b, F5c, N1, N5	After the time is up, the user is prompted with a pop-up showing their correct total score (after removing any words that are invalid) in less than 5 seconds.
4	F6	After game over popup has been closed, user can select "New Game" to start a new game.
5	F7	At any time throughout the game, the user can click "?" to see game rules explanation.
6	N2	At any point throughout the game, the user can exit without the system breaking
7	F4c, F5b, F7	Run through a boggle game, opening all the menus, and seeing if everything displays properly in Spanish, and the words that are scored are also in Spanish

4. Test Environment

The tests are to be run across multiple Windows PCs with Java installed and with varying specifications in order to cover a wide range of possible consumer machines.

5. Test Cases as Follows:

Test Cases

Test Case #1

1. Component under test
 - a. Über Boggle
2. Feature(s) to be tested
 - a. New Game functionality, dice animation, and timer (re)set.
3. Initial Conditions
 - a. Game started without any UI entry into application.
4. Expected Behavior
 - a. User starts game and selects "New Game"
 - b. System animates dice being rolled and sets clock to 3:00 (180 Seconds)

Test Case #2

1. Component under test
 - a. Über Boggle
2. Feature(s) to be tested
 - a. Word entry system, timer countdown
3. Initial Conditions
 - a. New game has been started
4. Expected Behavior
 - a. User is able to enter any word using keys A-Z
 - b. System adds these words to Word List
 - c. User is not able to enter any word over 16 characters
 - d. System ignores any word that has more than 16 characters
 - e. User is able to spam entry box
 - f. System does not lag or crash

Test Case #3

1. Component under test
 - a. Über Boggle
2. Feature(s) to be tested
 - a. Game over dialog
 - b. Score tallying
3. Initial Conditions
 - a. Words have been entered
 - b. Game has been completed (timer reached 0:00 (0 seconds))
4. Expected Behavior
 - a. System checks if each word is in the dictionary
 - b. System checks if each word is longer than 2 characters
 - g. System checks if each word is on the current game board
 - c. System correctly calculates score of all words that pass all three checks
 - d. System correctly calculates score in under 5 seconds
 - e. System pops-up a dialog box alerting user that the game is over and what their total score is.

Test Case #4

5. Component under test
 - a. Über Boggle
6. Feature(s) to be tested
 - a. Game over dialog
 - b. Score tallying
7. Initial Conditions
 - a. Game has been completed and game score has been calculated
8. Expected Behavior
 - a. User selects "New Game" after closing game over pop-up dialog
 - b. System starts new game successfully (same process to Test Case #1)

Test Case #5

9. Component under test
 - a. Über Boggle
10. Feature(s) to be tested
 - a. Help dialog pop-up
11. Initial Conditions
 - a. Program has been started
12. Expected Behavior
 - a. User selects "?"

- b. System brings up game instruction help pop-up

Test Case #6

- 13. Component under test
 - a. Über Boggle
- 14. Feature(s) to be tested
 - a. Game exit
- 15. Initial Conditions
 - a. Program has been started
- 16. Expected Behavior
 - a. User selects closes out of the game by selecting "X" in program window
 - b. System will properly shutdown the game without causing the system to crash/break

Test Case #7

- 17. Component under test
 - a. Über Boggle
- 18. Feature(s) to be tested
 - a. Language Switching
- 19. Initial Conditions
 - a. Program has been started
- 20. Expected Behavior
 - a. Game menus, text, logo change to Spanish when language select button is pressed.
 - b. Words scored should be Spanish words, not English words