***TESTING DOCUMENTATION:***

*Test Environment:*

**Server:**

* Software
  + XAMPP or similar mySQL Database software
  + Java (min version 7)
* Hardware
  + Quad-Core CPU (At least 1.0 gHz)
  + Local storage
  + Network connection

**Client:**

* Software
  + Java (min version 7)
  + .NET version 4.5 or greater
* Hardware
  + Quad-Core CPU (At least 1.0 gHz)
  + Local storage
  + Network connection

**Android:**

* Software
  + Android SDK API v26 or greater
* Hardware
  + A device compatible with the above software specifications.
  + Network connection

*Testing Tools:*

The tools I will be using to run these tests are as follows:

* Myself
* Other testers
* The testing environments labelled above.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test ID** | **Test goal** | **Test method** | **Expected result** | **Actual result** | **Data provided** |
| **Test1x01** | Server connects to database  correctly | 1. Open client and start server. 2. Sign in on the client with the provided username and password 3. Press go | No error in server console. Server should output “Connected To DB” | As expected | Username: admin  Password:  admin |
| **Test1x02** | Server and client can talk to each other | 1. Open client and start the server 2. Sign in on the client with the provided username and password 3. Press the go button | Server should not output an error and serve the client a game ID and player name. | As expected | Username: admin  Password:  admin |
| **Test 1x03** | Client can leave the game correctly | 1. Successfully perform Test 1x02 2. Click the “Leave game” button | The client should return to the sign in page and the server should delete the game. | As expected |  |
| **Test 1x04** | Server can handle multiple clients | 1. Open 2 clients simultaneously and perform test 1x02 successfully (use the second login for the second client) 2. Compare the game IDs 3. Look at server console | The clients should show the same game ID but the server console should display different users in the same game. | As expected | Username 2: Bino  Password 2: Bino |
| **Test 1x05** | Server sorts the games list by waiting order | 1. Successfully perform Test 1x04 2. Open a 3rd client and run text 1x02 with the information in this test 3. Compare game ID’s 4. Look at server console | The first two clients signed in should show the same game ID and this should match the server console.  The 3rd client should show a different game ID and the corresponding game item in the server console should be first in the list. | As expected | Username 3:  Roland  Password:  r |