

Test Strategy

StakeHolders' goals

Within this section a testing strategy and suggested testing approaches will be presented. The company SDC has required a test run on a web server called "My Web Server", to ensure a deployment of a stable version of the software. The web server was created with hope to attract more Internet of things (IOT) developers with their simple and easy to use software. The software is open source and its aim is to be used on different platforms. In order to check the current state of the software and ensure accessibility/reliability as well as the integrity within the web server the Software testing was requested by the SDC.

Stakeholders: SDC

Scope

The following will be the overall scope and iteration of the testing.

1. Testing if the web server can be executed on all operating systems (Windows, MacOS and Linux).
2. Testing input for the port socket and shared resource container.
3. Automated testing (with already existing Junit tests).
4. Manual testing (a tester playing a role of a end user by executing the most features of the web server).
5. Testing web server if fulfills the minimum requirements of HTTP 1.1.
6. Compatibility with GPL-2.0
7. Stress test (should be responsive under load).
8. Assuring access log is viewable from a text editor.
9. Testing security.

Resources

Tools

- Hardware
 - Windows PC/Laptops x4
- Software
 - Eclipse ver: Oxygen.1a Release (4.7.1a)
 - IntelliJ idea ver: 3.1
 - Junit version: 4.12
 - Chrome/FireFox web browser to access localhost
 - Jmeter version: 3.3
 - Windows PowerShell (Windows 10)

Personel

- Test Planner x1 (Project Manager)
- Tester A
- Tester B
- Tester C

The group consists of 4 members as listed above and each member will contribute on each iteration of work. The project manager will be responsible to make sure that all reports are set, correct and delivered before the deadline.

Time limit

Deadline: 00:00 23rd of December.

Roughly estimated total of 85 hours of work is expected from all of the member in the team.

Iteration/strategy

The work will be executed as presented by the points mentioned above. Starting with Testing the code with different operating systems although this test was not able to be done due lack of alternative operating systems other than windows. Following with tests on input for the port socket and shared resource container, manual and automated tests, compatibility with HTTP 1.1 and GPL-2.0 for libraries and tools used in the software. Additional test will be performed with Jmeter to test the responsiveness of the web server under heavy load and finally, to assure that the logs created by the web server are viewable on text editor.