

Deliverable II

Testing Plan

Project: Martus

Team

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Deliverable

This deliverable will serve to outline a set of test cases, derived directly from the software requirements, which we will use to test segments of the Martus source code. The software was written to perform a set of functions based on how the end product is supposed to work. These functions are detailed in a list of requirements. For each of the requirements we choose to test, we will be exploring the input space and choosing inputs which illustrate important cases. We will then use the outcome of these tests to verify that the software is working as it is intended, at least according to the requirements.

The testing process

We will create a script which runs a suite of tests on a segment of the Martus source code, compares the outcomes to a set of expected outcomes, and displays the results in an HTML file. Our script needs to live in the same directory as the Martus source code. It will have a set of file dependencies which it must use to compile the driver. It will compile and run the driver, using pre-selected methods and inputs designed to illustrate test cases, listed in a text file. It will output the results to another text file and compare this outcome to the expected results of each test. It will then create a final HTML file displaying the context and results of each test

Requirements traceability

The tests should go over basic functionality within the system of Martus. All tests will be run from an automated script file, and give clear output for all 25+ test cases.

Tested Cases

Test ID - 1a

Requirement - The method should return true if the input password length is greater than or equal to 15 and it must contain two or more non-alphabetical characters as well as digits.

Component - Module: martus-client Package: org.martus.client.core
Class: MartusUserNameAndPassword.java

Method - isWeakPassword(char[] password)

Input - ("tested".toCharArray())

Expected Output - return true

Test ID - 1b

Requirement - The method should return true if the input password length is greater than or equal to 15 and it must contain two or more non-alphabetical characters as well as digits.

Component - Module: martus-client Package: org.martus.client.core

Class: MartusUserNameAndPassword.java

Method - isWeakPassword(char[] password)

Input - ("Testedpassword\$\$".toCharArray())

Expected Output - return true

Test ID - 1c

Requirement - The method should return true if the input password length is greater than or equal to 15 and it must contain two or more non-alphabetical characters as well as digits

Component - Module: martus-client Package: org.martus.client.core

Class: MartusUserNameAndPassword.java

Method - isWeakPassword(char[] password)

Input - ("TestedPassword21".toCharArray())

Expected Output - return false

Test ID - 1d

Requirement - The method should not throw any exceptions if the username is longer than 0, as a password length greater than 8, and the password and username do not match each other.

Component - Module: martus-client Package: org.martus.client.core

Class: MartusUserNameAndPassword.java

Method - validateUserNameAndPassword(String username, char[] password)

Input - ("TestUserName.toCharArray()", "TestedPassword#")

Expected Output - No exceptions thrown

Test ID - 1e

Requirement - The method should not throw any exceptions if the username is longer than 0, as a password length greater than 8, and the password and username do not match each other.

Component - Module: martus-client Package: org.martus.client.core

Class: MartusUserNameAndPassword.java

Method - validateUserNameAndPassword(String username, char[] password)

Input - ("TestUserName.toCharArray()", "TestedUsername")

Expected Output - Throw PasswordMatchedException

Testing Schedule

-Week of 9/25: Test plan conceived, five test cases conceived

-Week of 10/09: Driver to run tests should be finished, work on framework structure should have started. At least 15 test cases should be conceived

-Week of 10/16: Testing framework structure should be finished. Should be able to run at least one test case.

-Week 10/23: All 25 test cases should be conceived. Debugging of testing framework for other cases and a full run will be underway.

-Week 10/30: Debugging continues

-Week 11/07: Project is as bug-free as can be reasonably achieved in a period of time. System should be ready to present

Test Recording Procedures

After any test by a member of the team, they will log when they ran the test, what the test was run on, and the result of the test. This log will be it's own separate page in our github repository. This will be separated by week to make organization easier.

Constraints

The base system of Martus, as well as the testing framework, must all run on the Ubuntu OS. The testing framework directory must be laid out in the manner described on the team deliverable page.