



Test Plan Design Report

Test Project: HT1- Ali Nadhum

Test Plan: Test Plan for Hillava project v0.01

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Test Project: HT1- Ali Nadhum

Henkilökohtainen tehtävä. Testi projektin testi-aiheea on Aition Hillava

Test Plan: Test Plan for Hillava project v0.01

Aitio Oy / Hillava

1. Platform: Windows 10

Mozilla Firefox

1.1.Test Suite : System testing

This directory is provided with functional and non-functional test cases, which are implemented in this test project.

1.1.1.Test Suite : Master test plan

This directory includes master test plan for Hillava as test project.

Test Case HT1-1: Master test plan of Hillava

Author: I0233

Summary:

Introduction

This is the master test plan for our school project concerning Aitio Finland Oy's product called Hillava.

Project and Project Objective

Objective of the master test plan

This plan's purpose is to give information on how the testing for this project will be done. This plan will be available for the whole team and people involved with this project.

Involved in creating the master test plan

This test plan is created by the project team called Juuson Enkelit.

Client

The client of this project is an organization called Aitio Finland Oy.

Provider

This project is a part of a software testing course in JAMK University of Applied Sciences. Therefore JAMK provides the team workspace, computers and technology.

Scope

Application's testable functionalities are determined via use cases. Each use case is tested with correct and incorrect inputs for high coverage. Stability, scalability and performance are also in the scope range.

Out of scope

Acceptance criteria

Acceptance of tested functionality is based on the correct way of working for that specific functionality. Any function cannot overthrow the application. Serious errors can't exist in the compulsory functionalities of the application. Manual test cases are predetermined for passing or failing.

Documentation

Test Strategy

The testing process will include both manual testing and automated testing.

Approach

Each test scenario is created by following imaginary stories about clients using the application.

Test Levels

Unit testing

The programmer creates functional tests during the coding phase with JUnit. Unit tests are run within the Android Studio with the Gradle builder.

System testing

Functional testing

- Sanity testing and smoke testing are done with Jenkins as the git repository is committed with some modifications. Jenkins runs initial tests and tries to build the project.
- Usability testing is done manually with the devices the group owns.
- Explorative testing is done during the development phase by programmers.
- Regression testing is done by running selected tests in TestLink after intervals, ie. after each sprint.

Nonfunctional testing

- Performance, stability and reliability testing is done handson with the device.

Acceptance testing

- Collaborative Testing Sessions are used to validate product quality before moving it in production mode.

Test environment

Testing tools

Tools used in testing process:

- Ubuntu 14.04
- TestLink
- Jenkins
- Jira
- JUnit in Android Studio with Gradle

Hardware

Workstations with virtual machines for local testing

Management

Test process

Testing process for different tests:

- Manual test cases are executed in TestLink. Tester follows the test case steps and executes the test in SUT.
- TestLink is used as a documentation tool for all the tests, including manual tests. Manual tests are executed and reported in Testlink for later inspection. This gives us the control to observe and manage result statistics during the testing phase.
- JUnit will be used for automated testing.

Error management

Our team uses Jira to handle issue tracking. All found errors and issues will be stored there. Jira and TestLink are linked to work together.

Milestones

We are using scrum on this project. Each sprint will last for one month and each sprint will have their own milestones.

Goal

Our main goal is a successful test management and documentation over the project development phase.

<u>Execution type:</u>	Manual
<u>Estimated exec. duration (min):</u>	
<u>Priority:</u>	Medium
<u>Keywords:</u>	None

1.1.2.Test Suite : Acceptance Testing

This directory includes both of Use Case Scenarios and Test Cases of Contriboard test project

Attached files

- Test scenario of Contriboard test project : test_scenario1.txt
- test_scenario1.txt

1.1.2.1.Test Suite : TestCases

Test Case HT1-4: Test scenario1		
Author:	I0233	
<u>Summary:</u> This testcase is for users inputs using both Andriod device and the interactivity of Hillava project		
<u>Preconditions:</u> Requirement/Reason: <ul style="list-style-type: none">• Correct information is sent and received from server.		
Pre-state (Preparations): <ul style="list-style-type: none">• The app is in the start view.• All data connections are active and scanning.		
Pass/Fail Criteria: <ul style="list-style-type: none">• PASS: Correct information on screen.• FAIL: Wrong or no data is on screen.		
#:	<u>Step actions:</u>	<u>Expected Results:</u>
1	User touches the screen	Application will start
2	User leaves the screen on for while	Application will turned off once the android device screen is in sleep mood
3	User assigned tasks should continue even if the screen is in sleep mode	Application transmission to the server will keep going
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u> None		
<u>Attached files</u>	<ul style="list-style-type: none">• test_scenario1.txt• test_scenario1.txt	

Test Case HT1-5: Test scenario2	
<u>Author:</u>	I0233

Summary:

Requirement/Reason:

- Correct information is sent and received from server.

Pre-state (Preparations):

- The app is in the start view.
- All data connections are active and scanning.

Pass/Fail Criteria:

- PASS: Correct information on screen.
- FAIL: Wrong or no data is on screen.

<u>Execution type:</u>	Manual
<u>Estimated exec. duration (min):</u>	
<u>Priority:</u>	Medium
<u>Keywords:</u>	None

1.1.3.Test Suite : Functional Testing

Functional test cases of Contriboard

Test Case HT1-3: Login using nfc-tag		
Author:		I0233
<u>Summary:</u>		
	User will login to the server successfully after entering correct login parameters. Also the session will remeber user after navigating to di User will finally logout after clicking logout link and the session will be no longer available.	
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>
1	User will approach Android device and the user will use his personnal NFC-tag	The device will be able to recongi
5	The system time will track the users logings each time the users logging into the system	Time will start when nfc-tags is re tags are used again or the assign
6	User clicks on "Selaa". User clicks then OK.	Current undergoing assignment l form will popup
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u>	None	

Test Case HT1-7: Login manually		
Author:	I0233	
<u>Summary:</u>		
User will log manually using the Hillava application number tabbing		
#:	Step actions:	Expected Results:
1	User approach Android devise (No NFC-tag this time). User tabs on the device's screen.	The application will start
2	User click on "Selaa" button. And then clicks "OK" button.	Undergoing assignments will be displayed. And after the OK logging popup shows up

3	User clicks "Kirjaudu" button and enters own "PIN" and "Tunniste". using manual hand tabing.	"Tunnite" field will show tabbed alphabets and the "PIN" will be displayed as password
4	User clicks OK button	User will be navigating to the main page of Hillava application
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u>	None	

Test Case HT1-9: Two users logging and assignig to same assignment

<u>Author:</u>	I0233	
<u>Summary:</u>	Users will log to assignments, which are designed for multiple users	
<u>Preconditions:</u>	The application validation must work at all of the time	
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>
1	User logged into the Hillava application.	The application will ask the logged user for second user to activate specific task
2	Second user approach the application and then logs in	Application will display to the approaching user the logged user's info and will be in waiting mode
3	Users will be navigating to the info page of the task	Main page of Hillava will show both logged users details. Attached to assignment status bar, which will be shown whether green or dark grey depending on assignments activity
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u>	None	

Test Case HT1-6: Reading an assignment

<u>Author:</u>	I0233	
<u>Summary:</u>	Users (Aitio workers) are provided with both of NFC- task and personnal tags. These tags are meant to be used as identifiers and also keys for the work to be done	
<u>Preconditions:</u>	Server will answer for callings and user data will be recieved	
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>
1	User browse the undergoing tasks in the Hillava task list	Task will be shown in the list followed by their status

2	User uses the task's NFC- tag	Application will be able to identify the assigned task. And will ask for users
3	User logs in	Application will display the identified task and its own status
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u>	None	

Test Case HT1-8: Modifying profile details		
Author:	I0233	
<u>Summary:</u>		
The section is for users to change their personnal data in Hillava application		
<u>Preconditions:</u>		
SQL (update, delete and insert) syntax calls must work in order to update users info. Also the sever shouldnt block incoming calls from Hillava application		
#:	<u>Step actions:</u>	<u>Expected Results:</u>
1	User logging to Hillava provided with chosen task whether from the tasklist or using the NFC-tag	Application will navigate the logged user to main page
2	User tab on profile picture	User's info will be displayed
3	User is able to change profile picture and edit profile data fields	The application should approve the changes once the user is tabbed on confirm
7	User logs off after clicking on the below "Peruuta" button	Transsimition is cut to the server and application timer has stopped
<u>Execution type:</u>	Manual	
<u>Estimated exec. duration (min):</u>		
<u>Priority:</u>	Medium	
<u>Keywords:</u>	None	

Test Case HT1-2: Logging off		
<u>Author:</u>	I0233	
<u>Summary:</u>	<p>Test user will be able to create new user based on validation stricts in Contriboard. Also bugs and failed creation attempts will be noticed during this test.</p>	
<u>#:</u>	<u>Step actions:</u>	<u>Expected Results:</u>
1	Logged user clicks on Peruuta button	Application throws user to login page and the task will be marked as stopped
<u>Execution type:</u>	Manual	

<u>Estimated exec. duration (min):</u>	10.00
<u>Priority:</u>	Medium
<u>Keywords:</u>	None

1.1.4.Test Suite : Non Functional testing

Non functional test cases directory

Test Case HT1-10: Stability test Hillava can handle multiple user loginings	
<u>Author:</u>	I0233
<u>Summary:</u> System should be designed to handle multiple loggings to applications. Also the server is maintained to pend users details once the NFC- tags were used	
<u>Execution type:</u>	Manual
<u>Estimated exec. duration (min):</u>	
<u>Priority:</u>	Medium
<u>Keywords:</u>	None

Test Case HT1-11: Server pendding for task or user details	
<u>Author:</u>	I0233
<u>Summary:</u> Testing server thrown error, which's caused by missing data. This error could be fatal and the application process tree should'nt be affected .	
<u>Execution type:</u>	Manual
<u>Estimated exec. duration (min):</u>	
<u>Priority:</u>	Medium
<u>Keywords:</u>	None

Execution time metrics

Estimated time for executing 11 test cases (min):10