TESTING REPORT
SOFTWARE TESTING
SSE3305
Lecturer: Dr. Pathiah Binti Abdul Samat

Members:

Mohammad Alif Hasan Khan - 191302

Md Hafizur Rahman- 191396

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Introduction

This report will consist of the details of the testing that we conducted. The testing is automated with the use of a testing tool. The testing is not done on all modules, but we selected specific parts of the application to get test cases, test suites and generate report from the conducted test. We focused mainly on the user interface testing, as the application is web-based. The testing is done on a few specific modules, such as login, registration and searching.

We chose Katalon Studio which is a software testing tool. It can be downloaded from https://www.katalon.com/katalon-studio/. Before downloading, the user is asked to register with their Email Address. After the registration is done, the user can download the testing tool. The installation file size is 322 Mega Bytes for the 64-bit version.

Ease of Installation

The installation package is run by the user, and the user is then prompted to know if the Java Environment is required to be installed or if it is already installed in the system. It is necessary for the environment to be available. After the installation is done, the user can run the executable file from the installation directory.

Ease of Use

The tool is quite easy to use, as it supports automation testing. To create a test-case based on web interface tracking, the user needs to right-click on the test case tool and create a new test case. They then need to click on the mentioned button below:
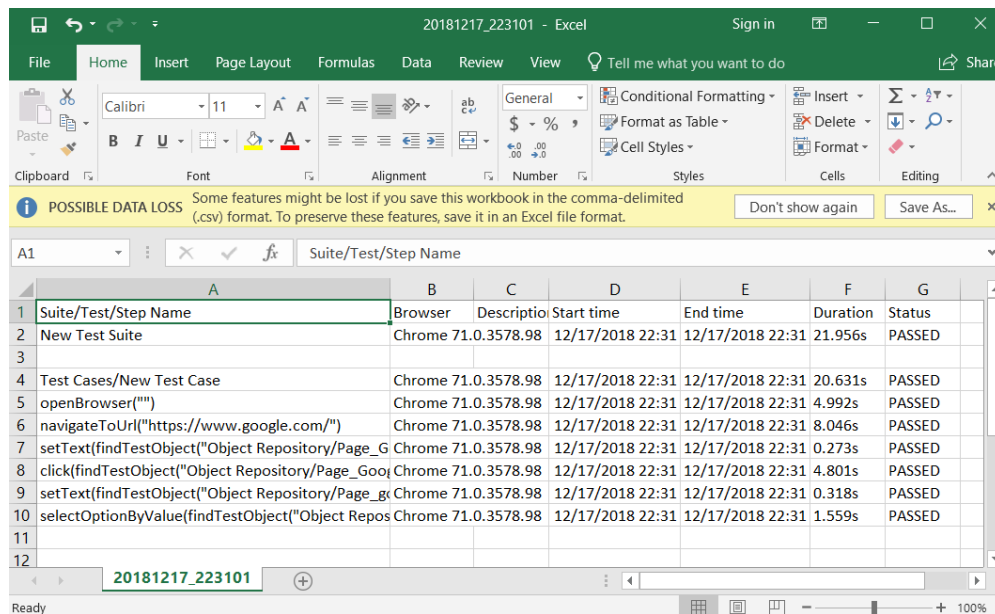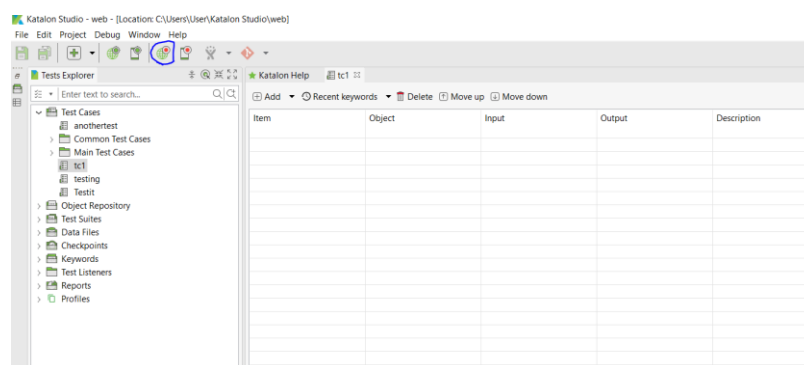
Recording the Web Application Interface

This will start the recording of the desired web application to be tested (according to what the user inputs as the URL). The next step will be described on the following section.

What it does

All the navigations, button clicks, mouse clicks will be tracked until the web page is closed. Then the Test Case will be generated. The test suite is generated in the same way, and the test reports are generated based on the Test Suite. The reports can be accessed through Excel sheet to fetch the testing data for further purposes.

Test Report

Excel sheet of testing data from the report

Features to be Tested

The features that are mostly focused to be tested for this readily available web application are the login and the search navigations. These navigations are then categorized by clicking on different features which will take the user to different interfaces.

Quality of Testing

The quality of the testing is quite precise, as the application shows how many test cases have passed and failed. It also logs all the navigation and activities done by the user. The passwords are not kept as encrypted in the log, so that is a problem regarding the security. The test case details can be explored vividly, which can help the user to get a clear and concise idea about the testing. This is based on the web UI testing.

Relation to the Field of Testing

The Katalon Studio is a System testing tool, which means that it tests the behavior of the system and how it works in its environment. The functional testing is more focused when this tool is used to test the interface of a program. It tests the interface, its environment and its navigation among the interfaces.

The testing tool is based on the principle: **Testing reveals presence of bugs.** The tool displays the bugs that were encountered while testing the web/ mobile application. So even though the bugs cannot be resolved by the tester as we are already using a readily made software, the bugs can be detected by the tester and fixes can be suggested by them. The testing tool is a dynamic tool, as the web application/ mobile application must be executed for the testing to be conducted.

This interface testing is utilizing the **Black Box Testing** technique, because the internal structure of the system is not required for the tester to acknowledge to conduct the testing. This testing technique focuses mostly on the test cases that are generated and later the test cases are developed to get decision tables and test reports to know the pass/ fail criteria and the total number of inputs.

BLACK BOX TESTING APPROACH
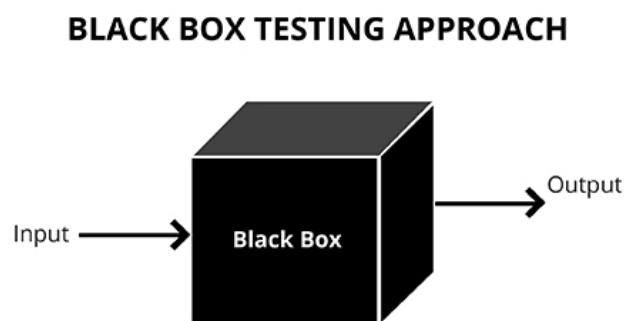
Black Box Testing Technique

Test Cases and Test Report

We have conducted three different tests here, with the 1st Test Case with a valid input, 2nd Test Case with invalid password, and the 3rd case with an invalid email address. The tools automatically generate these test cases and the steps.

Test Cases	Steps	Input	Output	Result
TC1	Step 1: Open Browser Status: Passed Step 2: Navigate to URL Status: Passed Step 3: setText Status: Passed Step 4: setText Status: Passed Step 5: click Status: Passed Step 8: closeBrowser Status: Passed	User id: 191302 Password: "191302"	Login Successful.	Passed
TC2	Step 1: Open Browser Status: Passed Step 2: Navigate to URL Status: Passed Step 3: setText Status: Passed Step 4: setText Status: Passed Step 5: click Status: Passed Step 8: closeBrowser Status: Passed	Email: 191302 Password: "19283002"	Password or email is incorrect.	Passed
TC3	Step 1: Open Browser Status: Passed Step 2: Navigate to URL Status: Passed Step 3: setText Status: Passed Step 4: setText Status: Passed Step 5: click Status: Passed Step 8: closeBrowser Status: Passed	Email: 19130P2 Password: "191302"	Password or email is incorrect.	Passed.

Recommendations for its use

The Katalon Studio is used to test web and mobile applications. It is an automated testing tool which mainly focuses on testing the user interface of the application. So, if the tester is looking forward to conducting a system test and focus mostly on the interface testing, this is the application that they should be using. The user interface of the testing interface is based on the IDE and eclipse platform, so it makes it easier for users who are familiar with the Eclipse IDE. The UI is also quite user-friendly, as the instructions of running a simple test are already provided on the home page of the tool. Complex tests can be conducted using branches and loops, and the tutorials are available on their website.

The problem with the tool is that it is not that secured, as in a login page, it will log and keep track of the password in its decrypted mode. Which means, if the password is "1234", it will not show "****" but it will show "1234". This is risky if a tester is asking other users to do the activities and then the tester keeps the log of that user. This can cause breach in privacy.

So, overall this tool is very helpful for beginner software testers, as the whole package is a freeware and the only thing that the user need to do to activate the tool is to key in their Email Address. This tool can be used for web and mobile application testing, but not for desktop application testing. So, this tool can be recommended for the reasons mentioned above.

Conclusion

So, from the report and the content that it provided, anyone who wants to test a website/ mobile application can use this tool and the methods that are described here to do so. The testing can be conducted using a computer.

References

http://toolsqa.com/katalon-studio-tutorial/

https://www.udemy.com/automation-testing-using-selenium-katalon-studio/

https://www.computerhope.com/jargon.htm

https://www.softwaretestinghelp.com/black-box-testing/