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Some of the major activities during manual and Automation testing

Software Testing

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Manual Testing Automation Testing

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Identify Test Scenario Identify Automation

Prepare Test Cases & Test Data Test Scenarios

Test Execution Develop Auto Test Scripts

Defect Reporting Execution of Test Scripts (Tool)

Getting it fixed Analyse Test Result

Defect Reporting

Getting it fixed

Scenarios which are preferable for Automation Testing

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In general scenarios which are more repeatable and complex to perform manually those are suitable for automation testing.

E.g. Build Verification Test Scenarios (Smoke Testing, Sanity Testing)

Regression Test Scenarios

Re-testing scenarios like scenarios which are required multiple set of test data to validate

Scenarios which are not preferred for Automation Testing

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--> Scenarios which are not repeatable and easy to perform manually

Ex: GUI/UI Test Scenarios (Look-n-feel of application)

--> Usuability Test Scenarios (User freindliness/ ease of use of application)

--> One time testing activities

--> Informal testing activities (Adhoc testing, Exploratory Testing)

Note: For one project there can be Manual & Auto Testing teams

Can work whereas Automation Testing is an optional for some of the projects.

When we can start developing automation test scripts?

-> After getting initial stable build from development team then we can start developing automation scripts.

Where as test cases can be prepared whenever requirements are baselined

Automation testing selection criteria for a project

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Following are the factors analyzed to decide project is suitable or not for automation testing

-- Size of the project (Minimum project should contain more than 100 pages)

-- More resource required for a project (i.e. Test Engineers)

-- More time taking

-- Multiple Releases are expected

-- Application Environment should support to perform automation testing

-- Client should accept & approve in terms of budget

How to select Best Automation Tools for a project?

1. Type of tools (ROI) Return On Investment

a. Commercial Tools (QTP) --> Secured/Security reasons

b. Non-Commercial Tools (Selenium) --> Unsecured

2. Identify the requirements for tools

a. Tool can generate automation scripts automatically (i.e. Recording)

b. Tool can generate the test results in the desired format

c. Ease of developing automation test scripts

d. Ease of test execution

3. Tool will support application envrionment or not

Ex: Windows based (QTP), web based (Selenium) and Mobile applications

4. Cross browser supporting and Different Operating System supporting

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Introduction to Selenium

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It is a free tool (i.e. Non-commercial tool)

It is an Open-source tool

It is used to perform Functionality & Regression Testing

It supports only web based applications to Automate (i.e. Browser Automation)

It supports different languages as Automation script like (Java/Ruby/C#/Python/Perl)

With extension of Appium we can also automate mobile applications

Selenium is a suite of tools

Selenium 1.0

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It was introduced in 2004 with following components

1. Selenium IDE

2. Selenium RC (Deprecated)

3. Selenium Grid/Grid-1 (Deprecated)

Selenium 2.0 & 3.0

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Selenium 2.0 was introduced in 2010 where Selenium 3.0 introduced in 2016

Components in Selenium 2.0 & 3.0

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1. Selenium WebDriver/ WebDriver

2. Remote WebDriver/ Grid-2

Introduction to Selenium IDE

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IDE --> Integrated Development Environment

(It is an editor where we can write, compile, execute, source code)

It is add-on for Firefox and Chrome browsers

It is a "Record & Playback" Tool

Recording:

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Converting our actions or operations which we perform on AUT into automation script is called Recording

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