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Automation Testing Using Selenium with Java

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Introduction To Automation Testing :

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Software Testing:

It is a combination of Verification and Validation

Verification: It is a process to check "Are we developing the system right or not"?

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Validation: It is a process to check "Have we developed the right system or not"

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Software Testing will help to identify defects, when those are resolved then software quality improves.

Types of Software Testing

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In general Organization follows 2 types of approaches to validate applications.

They are:

1. Manual Testing 2. Automation Testing

1. Manual Testing

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Without using any automation tool, Test Engineer directly interact with application to verify the actual behaviour while performing operations

is called Manual Testing

For Manual Testing we prepare test cases and those are used to validate application.

Advantages

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It is simple and easy to perform for small projects

Disadvantages

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- Time consuming

- Inconsistency (i.e. due to lack of concentration)

- Lack of reliability (i.e. possibility of human mistakes)

Automation Testing

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Any task or activity performed with help of tool/programs is called Automation

Ex: Using calculator to perform arithmetic operations

\*\* Automating human activities (i.e. Test Execution) in order to validate application is called Automation Testing

Automation Testing can be performed using programming languages (C#) or scripting languages (Perl) or using any one of the 3rd party

automation tools like Selenium/QTP(UFT)/Test Complete/Tosca/Silk/Rational Robot.... etc

For Automation Testing we need to develop the automation test scripts

Advantages:

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- Fast in execution

- More consistency

- More reliability

- Automation test scripts are Resuable

- Automation test scripts are Repeatable

Disadvantages

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- Automation tools are expensive

- Skilled Automation Test Engineer's are required

- Some of the technologies/Enrionments are not possible to automate

Ex: Reading captcha, pop up messages (E.g. selection of images)

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