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**Q:1** What is the test automation framework? What is selenium? how does it work? and why do you need it?

Test automation frameworks are a set of rules and corresponding tools that are used for building test cases. It is designed to help engineering functions work more efficiently. The general rules for automation frameworks include coding standards that you can avoid manually entering, test data handling techniques and benefits, accessible storage for the derived test data results, object repositories, and additional information that might be utilized to run the tests in a suitable manner.

Selenium

The Selenium framework is the most widely used automation framework structure that increases code readability and hence improves test productivity. The ‘test case’ and ‘data’ are separately kept from each other to test how efficiently a web page can run. Selenium automation frameworks can also be utilized by executing test cases from an external source.

How selenium works

Selenium works through API commands, such as GET and POST, and will function based on the Selenium script requests it gets. The requests then get sent to the HTTP server of the browser driver, as well as the browsers through HTTP.

Why do we need it

Selenium is use for deterministic GUI testing. Selenium is an open-source tool that automates web browsers. It provides a single interface that lets you write test scripts in programming languages like Ruby, Java, NodeJS, PHP, Perl, Python, and C#, among others. ... jar) to run tests both locally and on remote devices.

**Q:2** The most common tools that are used for configuration management are pacer and ansible. You need to concisely compare both of them.

Comparison of both tools is as follow:

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Metric** | **Ansible** | **Packer** |
| **1** | **Code** | **Open Source** | **Open Source** |
| **2** | **Cloud** | **All** | **Azure & GCE** |
| **3** | **Type** | **Config Management** | **Config Management** |
| **4** | **Infrastructure** | **Mutable** | **Immutable** |
| **5** | **Config Files** | **Yaml** | **JSON** |
| **6** | **Central Servers** | **Not Required** | **Salt, Bash** |

**References :**

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