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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?

Answer:

Test Automation Framework:

These frameworks are the set of rules and related tools and techniques to build a test case. In other words, test automation framework is a combination of tools and procedures to automate the testing of any application.

Selenium:

It is a free automated testing framework for the validation of web applications on various platforms and browsers. Simply, it is an open source tool to automate the web browsers. Selenium provides you an interface for the programming of different languages for example JAVA, PHP, Perl, C# and Python etc.

How does it Work?

It works by the commands of API i.e. GET and POST and will function based over selenium script request it gets. The requests then get sent to the HTTP server of the browser driver, as well as the browsers through HTTP.

Steps for Login Automation using Selenium WebDriver:

1. Create a Selenium WebDriver instance.
2. Configure browser if required.
3. Navigate to the required web page.
4. Locate the relevant web element.
5. Perform action on the web element.
6. Verify and validate the action.

Why do you need It?

Selenium provides a playback tool for authoring functional tests without the need to learn a test scripting language. It also provides a test domain-specific language to write tests in a number of popular programming languages, including JavaScript.

Q#2. The most common tools that are used for configuration management are packer and Ansible. You need to concisely compare both of them.

Answer:

Packer	Ansible
Packer is an open source tool for creating identical machine images for multiple platforms from a single source configuration. Packer is lightweight, runs on every major operating system, and is highly performant, creating machine images for multiple platforms in parallel.	Ansible is an open source IT automation engine that automates provisioning, configuration management, application deployment, orchestration, and many other IT processes
Packer supports multiple "provisions", which handle the actual server configuration. These can be simple shell scripts, or can be a more robust tool like Ansible	Ansible supports clouds, including: Amazon Web Services (AWS) Google Cloud Platform. Microsoft Azure
Packer handles the creation of the VM and packaging as an AMI	Ansible handles the configuration of the virtual machine

References:

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