1. What is selenium?

Ans. Selenium is a free (open source) automated testing suite for web applications across different browsers and platforms.

1. Components of selenium?

Ans. There are four components of selenium.

1. Selenium IDE
2. Selenium RC
3. Webdriver
4. Selenium Grid.
5. Advantage and limitations of selenium IDE?

Ans. Selenium IDE advantage –

1. It is Firefox plugin that is easy to use and install.
2. No programming skills required.
3. Provide record and playback feature.
4. Provide export functionality.

Limitation –

1. Can only be used with Firefox.
2. We cannot perform data-driven testing.
3. No support for iterations and conditional operations.
4. No support for exception handling.
5. What is selenium RC?

Ans. unfortunately testers using Selenium Core had to install the whole application under test and the web server on their own local computers because of the restrictions imposed by the **same origin policy. In order to remove this problem, Selenium RC was introduced.**

**Advantages –**

1. Supports different programming languages.
2. Support different platforms like windows, Linux and Mac etc.
3. Can perform data-driven testing.
4. Can perform iterations and conditional operations.

Limitations –

1. Required to start the server before executing the test script.
2. Slow executing.
3. Complex architecture.
4. It doesn’t support to test iphone/android applications.
5. It doesn’t support Headless browser testing like HtmlUnit.
6. Difference between selenium RC and webdriver.

|  |  |
| --- | --- |
| **Comparison Type** | **Difference** |
| Architecture | Webdriver Architecture is simpler than Selenium RC. |
| Speed | **Webdriver is faster than Selenium RC since it**speaks directly to the browser uses the browser's own engine to control it. |
| API | **Webdriver’s API is simpler than Selenium RC's**. |
| Browser Support | **Webdriver can support the headless HtmlUnit browser** |

1. Limitations of webdriver?

**Ans.**

**A**. Webdriver Cannot Readily Support New Browsers.

### B. Webdriver has no built-in command that automatically generates a Test Results File.

7. What is selenium grid?

### Selenium grid is developed to minimize the test execution time as much as possible. It allows us to run the selenium test on multiple machines simultaneously. It is done with the help of DesiredCapability and RemoteWebDriver class.

### 8. What is selenium 1?

### Ans. Selenium RC is referred to as selenium 1.

### 9. What is selenium 2?

### Ans. Selenium2 = Selenium RC + WebDriver

### 10. What is latest version of selenium?

### Ans. Selenium3

### 11. Programming languages supported by selenium?

### Ans.

### Java

### C#

### Python

### JavaScript

### PHP

### Ruby

### 12. Browsers supported by selenium?

### Ans.

### Internet Explorer.

### Chrome

### Firefox

### Microsoft Edge

### Safari

### Opera

### 13. What is same origin policy?

### Ans. **Same Origin policy prohibits JavaScript code from accessing elements from a domain that is different from where it was launched**.

### https://cdn.guru99.com/images/same_origin_policy.png

### **14. Locator Strategy in selenium?**

### **Ans.**

### **id**

### **className**

### **name**

### **linkText**

### **partialLinkText**

### **xpath**

### **cssSelector**

### **15. How to run the script on firefox browser?**

### **Ans.**

System.setProperty("webdriver.firefox.marionette","path of driver exe");

WebDriver driver = new FirefoxDriver();

### **16. How to run the script on chrome browser?**

### **Ans.**

System.setProperty("webdriver.chrome.driver","path of driver exe");

WebDriver driver = new ChromeDriver ();

### **17. How to run the script on Internet Explorer browser?**

### **Ans.**

System.setProperty("webdriver.ie.driver","path of driver exe");

WebDriver driver = new InternetExplorerDriver ();

### **18. What is the difference between get() and navigate().to() method?**

### **Ans. Both method will launch the url but get() method will wait for the page to load and navigate().to() will not.**

### **19. What is the difference between close() and quit() method?**

### **Ans. Close() – It will close the currently focus windows.**

### **Quit() – it will close all opened windows.**

### **20. Different types of waits available in selenium?**

### **Ans.**

### **Implicit wait – It is used to set default waiting time for entire script. After each command, it will wait for that time.**

### **driver.manage().timeouts().implicitWait(10,TimeUnit.seconds)**

### **Explicit wait – These are conditional waits. It will wait for particular condition to occur. If that not occur in defined time, then it throws timeout exception.**

### **WebDriverWait myWait=new WebDriverWait(driver,10)**

### **myWait.until(ExpectedConditions.visibilityOf ElementPresent(By.id(“userName”))**

### **21. How to handle alert in selenium?**

### **Ans.**

### **Alert al=driver.switch().alert();**

### **al.accept() – To accept the alert.**

### **al.dismiss() – To cancel the alert.**

### **al.getText() – To get the text.**

### **22. How to handle frames in selenium?**

### **Ans.**

### **Driver.switch().frame(id,name or webElement)**

### **23.**