**Q1: Explain the differences between selenium IDE, RC & Web driver**:

The differences between selenium IDE, RC & Web driver are below:

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| **Functionalities** | **Selenium IDE** | **Selenium RC** | **Selenium Web driver** |
| Record and playback | It has the record and playback feature. | It does not have a record and playback. | It does not have a record and playback. |
| Server | It requires no server to start execution of test cases. | It requires the server to start execution of test cases. | It requires no server to start execution of test cases. |
| Browser | It can be used for testing only in Firefox. | It can be used for testing in the majority of browsers. | It can be used for testing in the majority of browsers including in headless mode. |
| Object Oriented | It is based on Selenium which is a procedural language. | It can be partially used for object-oriented programming. | It is majorly used for object-oriented programming. |
| Dynamic Locators | Elements cannot be identified. | Elements cannot be identified. | Elements can be identified. |
| Alerts | Cannot handle alerts. | Cannot handle alerts. | Can handle alerts |
| Mouse Actions | Cannot handle mouse actions. | Cannot handle mouse actions. | Can handle mouse actions. |
| Dropdown | Cannot handle dropdown. | Cannot handle dropdown. | Can handle dropdown. |
| iPhone/Android | Cannot perform iPhone/Android testing. | Cannot perform iPhone/Android testing. | Can perform iPhone/Android testing with the help of Android Driver, iPhone Driver. |
| Listener | Does not have a Listener. | Does not have a Listener. | Have Listeners. |
| Performance | Fast [comes as a Firefox plugin]. It interacts with the browser directly. | It does not interact with the browser directly. Hence on a slower side compared to web driver. | Fast as it interacts directly with the browser. |
| Architecture | Derived from JavaScript. | Derived from JavaScript. | Not derived from JavaScript. |
| Usage | UI interface available to create scripts. | Standalone Jars available to execute test cases in the browser. | Contains API and supported by languages like Java, Python, and Ruby and so on. |
| Xpath | Only has absolute xpath. | Only has absolute xpath. | Has both absolute and relative xpath. |
| Navigation | Cannot handle navigation. | Cannot handle navigation. | Can handle navigation. |

**Q3: What is selenium? How it is useful for automation testing**

Selenium can be easily deployed on platforms such as Windows, Linux, Solaris and Macintosh. Moreover, it supports OS (Operating System) for mobile applications like iOS, windows mobile and android.

Selenium supports a variety of programming languages through the use of drivers specific to each language. Languages supported by Selenium include C#, Java, Perl, PHP, Python and Ruby. Currently, Selenium Web driver is most popular with Java and C#. Selenium test scripts can be coded in any of the supported programming languages and can be run directly in most modern web browsers. Browsers supported by Selenium include Internet Explorer, Mozilla Firefox, Google Chrome and Safari.

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Selenium can be used to automate functional tests and can be integrated with automation test tools such as **Maven**, **Jenkins**, **& Docker** to achieve continuous testing. It can also be integrated with tools such as **TestNG**, & **JUnit** for managing test cases and generating reports.

**Q4: What are all the browser driver used in selenium?**

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| **Browser** | **Browser Driver** | **Supported OS** |
| Google Chrome | Chrome Driver | Windows, macOS, Linux |
| Mozilla Firefox | Gecko Driver | Windows, macOS, Linux |
| Microsoft Edge (Chromium) | Edge Driver | Windows, macOS, Linux |
| Safari | Safari Driver | macOS |
| Opera | Opera Driver | Windows, macOS, Linux (via Chrome Driver) |
| Internet Explorer | IE Driver | Windows only |
| Microsoft Edge (Legacy) | Edge Driver (Legacy) | Windows only |
| Brave | Chrome Driver | Windows, macOS, Linux (via Chrome Driver) |