Action(Selenium) & Robot(Java) Class

- Sometimes, sub menu items render in DOM only when we mouse hover on main menu. In that case, we face difficulty to click on sub menu item. In order to perform mouse hover actions, we need to chain all of the actions that we want to achieve in one go. To do this we need to make the driver move to the parent element that has child elements and click on the child element.
- To achieve this we use Actions class in Selenium WebDriver.
- Create object of an Actions Class by passing the WebDriver instance. With the object of the Actions class, driver moves to the main menu and then to the sub menu and click on it.
- If we want to click on the sub-element, first we need to mouse hover on the parent-element and then sub-element and click on it.
- We can perform Keyboard & Mouse Event using Actions Class in Selenium Webdriver.

Robot Class

- In certain Selenium Automation tests, There is a need to control keyboard or mouse to interact with OS windows like download, pop-up, alert, print pop-up etc. or native operation systems like notepad,skype,calculator etc.
- Selenium WebDriver can not handle these OS pop-ups/ application.
- In java 1.3, Robot class was introduced.Robot class can handle these things.

Benefits of Robot class

- Robot class can simulate Keyboard and mouse event.
- Robot class can help in upload and download of files when using selenium webdriver.
- Robot class can easily be integrated with current automation framework.

UnderStanding Robot class internal methods and Usage

- Robot class methods can be used to interact with keyboard and mouse events while doing browser automation.Alternatively,AutoIT can be used,but its drawbacks is that it generates an executable file which will only work on windows. So it is not good option.

Methods in Robot Class

- keyPress()->Press Arrow key.
- keyRelease()->Release Arrow Key.
- mousePress()->Press Right button of mouse.
- mouseRelease()->Release Right click of mouse.
- mouseMove()->Move mouse pointer to the specified X and Y coordinate.