

Selenium WebDriver

Selenium-WebDriver was developed to better support dynamic web pages

What is WebDriver:

Web automation framework that allows you to execute your tests against different browsers



Why Webdriver:

1. Support dynamic web pages
2. Supplies a well-designed object oriented API
3. Can handle keyboard events
4. Support for modern advanced web-app testing problems
5. Interacts with page elements in more realistic way
6. Supports all major Browsers like Mozilla, Chrome, IE, Safari etc.
7. Supports all major languages like java, C#, Perl, Ruby, Python etc.
8. Supports all major Operating System like Windows, Mac, IOS, Android etc.

Selenium IDE	Selenium RC	Selenium WebDriver
It only works in Mozilla browser.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.
It supports Record and playback	It doesn't supports Record and playback	It doesn't supports Record and playback
Doesn't required to start server before executing the test script.	Required to start server before executing the test script.	Doesn't required to start server before executing the test script.
It is a GUI Plug-in	It is standalone java program which allow you to run Html test suites.	It actual core API which has binding in a range of languages.
Core engine is Javascript based	Core engine is Javascript based	Interacts natively with browser application
Very simple to use as it is record & playback.	It is easy and small API	As compared to RC, it is bit complex and large API.
It is not object oriented	API's are less Object oriented	API's are entirely Object oriented

Configure Selenium Webdriver:

Step 1: Download Selenium Webdriver jar files from [www.seleniumhq.org \(selenium-server-standalone-3.0.1\)](http://www.seleniumhq.org (selenium-server-standalone-3.0.1))

Step 2: Import above jar files in Eclipse java project (Right click on java project -> Build Path -> Configure Build Path -> Libraries -> Add External JARs...

Step 3: Create normal Java Class and write a script

Sample script:

```
System.setProperty("webdriver.chrome.driver", driverPath+"chromedriver.exe");
// To Launch browser
WebDriver driver = new ChromeDriver();
// To navigate to the application
driver.navigate().to("https://enterprise-demo.orangehrmlive.com/auth/login");
// To maximize the window
driver.manage().window().maximize();
// To find the element and perform the action
driver.findElement(By.xpath("//input[@type='text']")).sendKeys("Admin");
driver.findElement(By.id("txtPassword")).sendKeys("admin");
driver.findElement(By.className("button")).sendKeys(Keys.ENTER);
// To close the browser
driver.close();
```