

# Selenium

## CHEAT SHEET

### Driver Initialization Basics

- **Firefox** `WebDriver driver = new FirefoxDriver();`
- **Chrome** `WebDriver driver = new ChromeDriver();`
- **Internet Explorer** `WebDriver driver = new SafariDriver();`
- **Safari Driver** `WebDriver driver = new InternetExplorerDriver();`

### Driver Initialization Advanced

- **Load Firefox from different location:**  
`System.setProperty("webdriver.firefox.bin", "path/to/firefox/binary");`  
`FirefoxProfile fp= new FirefoxProfile();`
- **Load Firefox addons:**  
`File file=new File("path/to/extension.xpi");`  
`fp.addextension(file)`

### Selenium Locators

- **Locating by ID**  
`driver.findElement(By.id("q")).sendKeys("Selenium 3");`
- **Locating by Name**  
`driver.findElement(By.name("q")).sendKeys("Selenium 3");`
- **Locating by Xpath**  
`driver.findElement(By.xpath("//input[@id='q']")).sendKeys("Selenium 3");`
- **Locating Hyperlinks by Link Text**  
`driver.FindElement(By.LinkText("edit this page")).Click();`
- **Locating by DOM**  
`dom =document.getElementById('signInForm')`
- **Locating by CSS**  
`driver.FindElement(By.CssSelector("#rightbar >.menu>li:nth-of-type(2)>h4"));`
- **Locating by ClassName**  
`driver.findElement(By.className("profileheader"));`
- **Locating by TagName**  
`driver.findElement(By.tagName("select")).Click();`
- **Locating by LinkText**  
`driver.findElement(By.linkText("NextPage")).click();`
- **Locating by PartialLinkText**  
`driver.findElement(By.partialLinkText("NextP")).click();`

### Selenium Navigators

- **Navigate to url**  
`driver.get("http://newexample.com")`  
`driver.navigate().to("http://newexample.com")`
- **Refresh page**  
`driver.navigate().refresh()`
- **Navigate forwards in browser history**  
`driver.navigate().forward()`
- **Navigate backwards in browser history**  
`driver.navigate().back()`

### TestNG

@BeforeSuite @AfterSuite @BeforeTest @AfterTest @BeforeGroups @AfterGroups  
@BeforeClass @AfterClass @BeforeMethod @AfterMethod

### JUNIT

@After @AfterClass @Before @BeforeClass @Ignore @Test

### Windows

```
String handle=driver.getWindowHandle();
Set<String> handles = getWindowHandles();
driver.switchTo().window(handle);

• How to switch to newly created window
String curWindow=driver.getWindowHandle();

• Get all window handles
Set<String> handles = getWindowHandles();
for(string handle: handles)
{
    if (!handle.equals(curWindow))
    {
        driver.switchTo().window(handle);
    }
}
```

### Frames

- **Using Frame Index:** `driver.switchTo().frame(1);`
- **Using Name of Frame:** `driver.switchTo().frame("name")`
- **Using web Element Object:** `driver.switchTo().frame(element);`
- **Get back to main document:** `driver.switchTo().defaultContent();`

### Operations

- **Launch Webpage** `driver.get("www.webdriverinselenium.com");`
- **Click Button** `driver.findElement(By.id("submit")).click();`
- **Handle Alert** `Alert Alertpopup = driver.switchTo().alert();`
- **Disable a Field** `driver.getElementsByName("")`  
`[0].setAttribute('disabled','');`  
`driver.getElementsByName("")`  
`[0].removeAttribute('disabled'; Screenshot.File`  
`snapshot=((TakesScreenshot)driver)`  
`.getScreenshotAs(OutputTypeFILE);`  
`FileUtils.copyFile(snapshot,`  
`newFile("C:\\screenshot.jpg"));`
- **Print Title of Page** `String pagetitle = driver.getTitle();`  
`System.out.print(pagetitle);`
- **Implicit Wait** `driver.manage().timeouts().implicitlyWait(10,`  
`TimeUnit.SECONDS); Explicit Wait`  
`WebDriverWait wait=new WebDriverWait(driver,`  
`20);`  
`Thread.Sleep(10);`
- **Sleep**

### Alerts

```
driver.switchTO().alert.getText();
driver.switchTO().alert.accept();
driver.switchTO().alert.dismiss();
driver.switchTO().alert.sendKeys("Text");
```

### Selenium Grid

- **Start hub:** `java-jar selenium-server- standalone-x.xx.x.jar-role hub`
- **Start node:** `java-jar selenium-server- standalone-x.xx.x.jar-role node-hub`
- **Server:** `http://localhost:4444/grid/console`

