# **Complete WebDriver & WebElement Methods Categorization**

## **🌐 Browser Control Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.get(String url) | String | void | Navigate to given URL |
| driver.getCurrentUrl() | none | String | Get current page URL |
| driver.getTitle() | none | String | Get current page title |
| driver.getPageSource() | none | String | Get full page HTML source |
| driver.close() | none | void | Close current window |
| driver.quit() | none | void | Close all windows, end session |

## **🔍 Navigation Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.navigate().to(String url) | String | void | Navigate to URL (like get()) |
| driver.navigate().back() | none | void | Go back in browser history |
| driver.navigate().forward() | none | void | Go forward in browser history |
| driver.navigate().refresh() | none | void | Refresh current page |

## **📜 Window/Tab Management**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.manage().window().maximize() | none | void | Maximize window |
| driver.manage().window().minimize() | none | void | Minimize window |
| driver.manage().window().fullscreen() | none | void | Fullscreen mode |
| driver.manage().window().setSize(Dimension) | Dimension | void | Set window size |
| driver.manage().window().getSize() | none | Dimension | Get window size |
| driver.manage().window().getPosition() | none | Point | Get window position |
| driver.getWindowHandle() | none | String | Get current window handle |
| driver.getWindowHandles() | none | Set<String> | Get all window handles |
| driver.switchTo().window(String handle) | String | WebDriver | Switch to given window/tab |

## **🍪 Cookie Management**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.manage().addCookie(Cookie cookie) | Cookie | void | Add a cookie |
| driver.manage().getCookieNamed(String name) | String | Cookie | Get cookie by name |
| driver.manage().getCookies() | none | Set<Cookie> | Get all cookies |
| driver.manage().deleteCookie(Cookie cookie) | Cookie | void | Delete specific cookie |
| driver.manage().deleteAllCookies() | none | void | Delete all cookies |

## **⏱ Timeout Management**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.manage().timeouts().implicitlyWait(Duration d) | Duration | WebDriver.Timeouts | Set implicit wait timeout |
| driver.manage().timeouts().pageLoadTimeout(Duration d) | Duration | WebDriver.Timeouts | Set page load timeout |
| driver.manage().timeouts().scriptTimeout(Duration d) | Duration | WebDriver.Timeouts | Set script timeout |

## **🖱 Element Interaction Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.findElement(By by) | By | WebElement | Find single element |
| driver.findElements(By by) | By | List<WebElement> | Find multiple elements |
| element.clear() | none | void | Clear input field |
| element.sendKeys(CharSequence... c) | CharSequence... | void | Type text |
| element.click() | none | void | Click element |
| element.submit() | none | void | Submit form |
| element.getText() | none | String | Get element text |
| element.getAttribute(String name) | String | String | Get element attribute |
| element.getCssValue(String prop) | String | String | Get CSS property value |
| element.isDisplayed() | none | boolean | Check visibility |
| element.isEnabled() | none | boolean | Check if enabled |
| element.isSelected() | none | boolean | Check if selected (e.g. checkbox) |

## **🖼 Frames Management**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.switchTo().frame(int index) | int | WebDriver | Switch to frame by index |
| driver.switchTo().frame(String nameOrId) | String | WebDriver | Switch to frame by name/id |
| driver.switchTo().frame(WebElement frameEl) | WebElement | WebDriver | Switch to frame by element |
| driver.switchTo().parentFrame() | none | WebDriver | Switch to parent frame |
| driver.switchTo().defaultContent() | none | WebDriver | Switch to main document content |

## **⚠️ Alerts Management**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.switchTo().alert() | none | Alert | Switch to alert |
| alert.accept() | none | void | Accept alert (OK) |
| alert.dismiss() | none | void | Dismiss alert (Cancel) |
| alert.getText() | none | String | Get alert text |
| alert.sendKeys(String text) | String | void | Send text to prompt |

## **📦 Advanced Element Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| element.getRect() | none | Rectangle | Get element dimensions + position |
| element.getScreenshotAs() | OutputType<T> | T | Take element screenshot |
| element.getLocation() | none | Point | Get element coordinates (x,y) |
| element.getSize() | none | Dimension | Get element width and height |

## **🔌 JavaScript Execution**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| element.getRect() | none | Rectangle | Get element dimensions + position |
| element.getScreenshotAs(OutputType) | OutputType<T> | T | Take element screenshot |
| element.getLocation() | none | Point | Get element coordinates (x,y) |
| element.getSize() | none | Dimension | Get element width and height |

## **📊 Browser Capabilities**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| ((RemoteWebDriver) driver).getCapabilities() | none | Capabilities | Get browser capabilities |

## **🔗 Action Chains (Advanced Interactions)**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| actions.click() | none / WebElement | Actions | Chainable click |
| actions.doubleClick() | none / WebElement | Actions | Double click |
| actions.contextClick() | none / WebElement | Actions | Right click |
| actions.dragAndDrop() | WebElement source, WebElement target | Actions | Drag and drop |
| actions.sendKeys() | CharSequence... | Actions | Send keys |
| actions.moveToElement() | WebElement | Actions | Hover over element |

## **📝 Special Keyboard/Mouse Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| element.sendKeys(Keys.chord()) | CharSequence... | void | Send key combinations |
| element.sendKeys(Keys.RETURN) | Keys | void | Send special key (e.g. Enter) |

## **🔍 Shadow DOM Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| element.getShadowRoot() | none | SearchContext | Access shadow root |

## **📱 Mobile Emulation Methods**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.rotate() | ScreenOrientation | void | Rotate device screen |
| driver.lock() | none | void | Lock the device |

## **📜 Print Page**

| **Method** | **Parameters (type)** | **Return Type** | **Description** |
| --- | --- | --- | --- |
| driver.print() | none | PrintsPage | Print current page |

**Reference :**

[official Selenium documentation](https://www.selenium.dev/documentation/webdriver/)