

Selenium: Introducing Web Driver and Web Elements :-

Selenium WebDriver is a web framework that permits you to execute cross-browser tests.

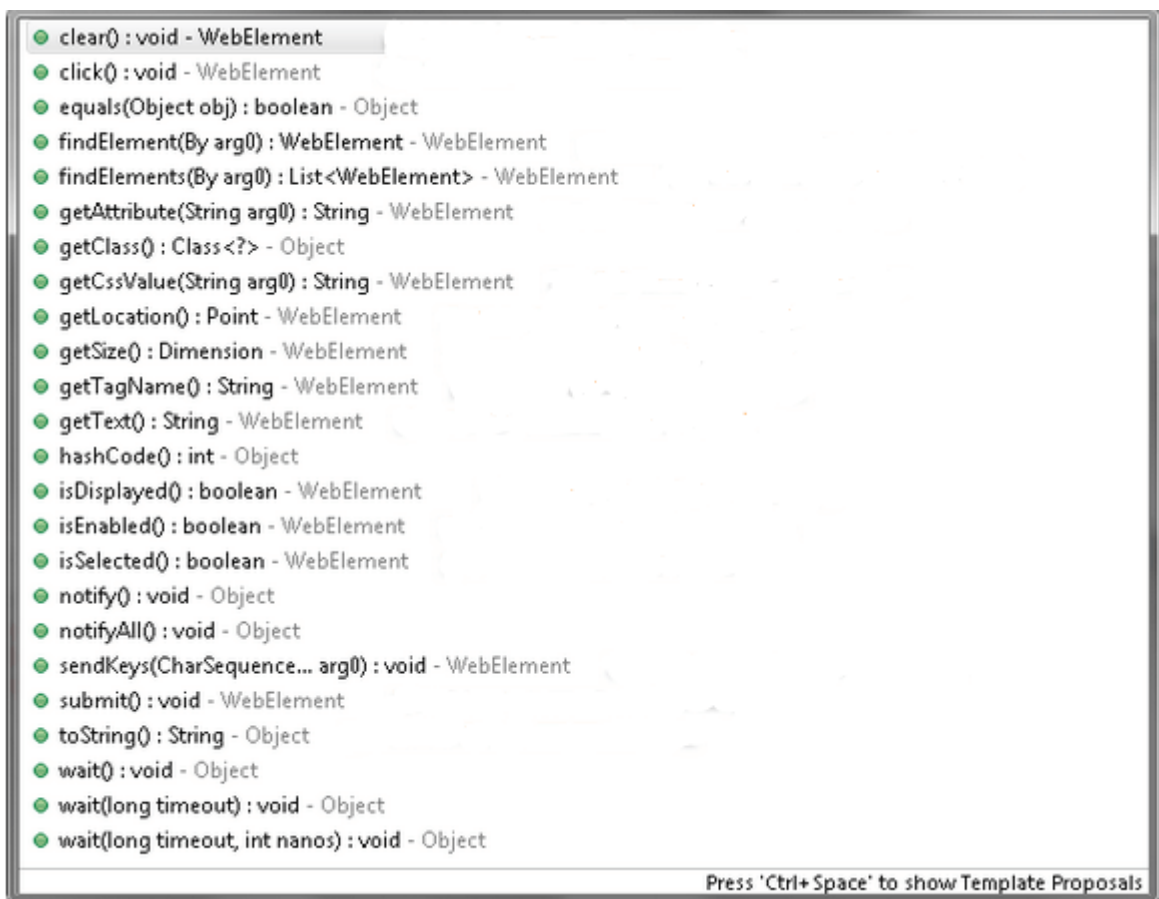
This tool is used for automating web-based application testing to verify that it performs expectedly.

Selenium WebDriver allows you to choose a programming language to create test scripts.

What is Web Element?

The term web element refers to a HTML element. The HTML documents are composed of HTML elements. It consists **a start tag, an end tag** and the **content** in between. For instance, a HTML element is written as: "<tagname> content </tagname>"

In WebDriver, we have several commonly used web element commands and actions. The following screenshot displays the eclipse web element command panel.



Note: To get the web element object, we have to write the statement as:

1. WebElement element = driver.findElement(By.id("UserName"));

Here, the UserName is the value of the **id** attribute, used as a unique identification for the desired web element.

Given are some of the most commonly used WebElement commands for Selenium WebDriver.

1. Clear Command

Method:

1. clear() : **void**

Command:

1. element.clear();

Code snippet:

1. WebElement element = driver.findElement(By.id("UserName"));
2. element.clear();
- 3.
4. //Or can be written as
- 5.
6. driver.findElement(By.id("UserName")).clear();

2. Sendkeys Command

Method:

1. sendKeys(CharSequence? KeysToSend) : **void**

Command:

1. element.sendKeys("text");

Code snippet:

1. WebElement element = driver.findElement(By.id("UserName"));
2. element.sendKeys("JavaTpoint");
- 3.
4. //Or can be written as
- 5.
6. driver.findElement(By.id("UserName")).sendKeys("JavaTpoint");

3. Click Command

Method:

1. click() : **void**

Command:

1. element.click();

Code snippet:

1. WebElement element = driver.findElement(By.linkText("javaTpoint"));
2. element.click();
- 3.
4. //Or can be written as
- 5.
6. driver.findElement(By.linkText("javaTpoint")).click();

4. IsDisplayed Command

Method:

1. isDisplayed() : **boolean**

Command:

1. element.isDisplayed();

Code snippet:

1. WebElement element = driver.findElement(By.id("UserName"));
2. **boolean** status = element.isDisplayed();
- 3.
4. //Or can be written as
- 5.
6. **boolean** staus = driver.findElement(By.id("UserName")).isDisplayed();

5. IsEnabled Command

Method:

1. isEnabled() : **boolean**

Command:

1. element.isEnabled();

Code snippet:

1. WebElement element = driver.findElement(By.id("UserName"));
2. **boolean** status = element.isEnabled();
- 3.
4. //Or can be written as
- 5.
6. **boolean** staus = driver.findElement(By.id("UserName")).isEnabled();
- 7.
8. //Or can be used as
9. WebElement element = driver.findElement(By.id("userName"));
10. **boolean** status = element.isEnabled();
11. // Check that if the Text field is enabled, if yes enter value
12. **if**(status){
13. element.sendKeys("javaTpoint");
14. }

6. IsSelected Command

Method:

1. isSelected() : **boolean**

Command:

1. element.isSelected();

Code snippet:

1. WebElement element = driver.findElement(By.id("Sex-Male"));
2. **boolean** status = element.isSelected();
- 3.
4. //Or can be written as
- 5.
6. **boolean** staus = driver.findElement(By.id("Sex-Male")).isSelected();

7. Submit Command

Method:

1. submit() : **void**

Command:

1. element.submit();

Code snippet:

1. WebElement element = driver.findElement(By.id("SubmitButton"));
2. element.submit();
- 3.
4. //Or can be written as
- 5.
6. driver.findElement(By.id("SubmitButton")).submit();

8. GetText Command

Method:

1. getText() : String

Command:

1. element.getText();

Code snippet:

1. WebElement element = driver.findElement(By.xpath("anyLink"));
2. String linkText = element.getText();

9. GetTagName Command

Method:

1. getTagName() : String

Command:

1. element.getTagName();

Code snippet:

1. WebElement element = driver.findElement(By.id("SubmitButton"));
2. String tagName = element.getTagName();
- 3.

4. //Or can be written as
- 5.
6. `String tagName = driver.findElement(By.id("SubmitButton")).getTagName();`

10. getCssValue Command

Method:

1. `getCssvalue() : String`

Command:

1. `element.getCssValue();`

11. getAttribute Command

Method:

1. `getAttribute(String Name) : String`

Command:

1. `element.getAttribute();`

Code snippet:

1. `WebElement element = driver.findElement(By.id("SubmitButton"));`
2. `String attValue = element.getAttribute("id"); //This will return "SubmitButton"`

12. getSize Command

Method:

1. `getSize() : Dimension`

Command:

1. `element.getSize();`

Code snippet:

1. `WebElement element = driver.findElement(By.id("SubmitButton"));`
2. `Dimension dimensions = element.getSize();`
3. `System.out.println("Height :" + dimensions.height + "Width : " + dimensions.width);`

13. getLocation Command

Method:

1. getLocation() : Point

Command:

1. element.getLocation();

Code snippet:

1. WebElement element = driver.findElement(By.id("SubmitButton"));
2. Point point = element.getLocation();
3. System.out.println("X cordinate : " + point.x + "Y cordinate: " + point.y);