Web Element Commands

Selenium provides an interface named WebElement in order to performs the actions on elements.

- Below are the web element methods used to perform actions on elements?

Commands	Argument	Return type
Send keys	String	Void
Click	No argument	Void
Clear	No argument	Void
Find element	By	Web element
Find elements	By	List<WebElement>
Is Displayed	No argument	Boolean
Is Enabled	No argument	Boolean
Is selected	No argument	Boolean
Get attribute	String	String
Get CSS value	String	String
Get location	No argument	Point
Get size	No argument	Dimension
Get tag name	No argument	String
Get text	No argument	String
Submit	No argument	void

Send keys

- Send keys method used to enter or type the string into the text filed.
- Send keys method takes string as an argument.

SendKeys("String")

Write Script to enter the text into text box?

```
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class SendKeys {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement username = driver.findElement(By.id("username"));
        username.sendKeys("admin");
        driver.close();
    }
}
```

Click

- Click command is used to click on the element. [Button, link, radio button, check box etc.]
- Click method doesn't take any arguments and returns void.

Click()

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Click {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement loginButton = driver.findElement(By.id("loginButton"));
        loginButton.click();
        driver.close();
    }
}
```

Clear

- Clear function is used clear the text present in the text boxes.

Clear()

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Clear {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement username = driver.findElement(By.id("username"));

        // Entering the value
        username.sendKeys("admin");

        // Clearing the value present in the text box
        username.clear();

        driver.close();
    }
}
```

Verification function.

- Below are the commands, which are used to verify the web elements.
  - ➔ Is displayed
  - ➔ Is enabled
  - ➔ Is selected
- All the above methods, verify the elements and returns Boolean value.

Is_Displayed

- This function checks the web element is visible to the user or not.
- It returns **TRUE** if the element is visible or returns **FALSE**

isDisplayed()

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class IsDisplayed {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement username = driver.findElement(By.id("username"));

        Boolean responce = username.isDisplayed();
        if (responce) {
            System.out.println("User name is displayed");
        } else {
            System.out.println("User name is not displayed");
        }
        driver.close();
    }
}
```

Is_Enabled

- This function checks for the element is enabled or not.
- Returns **TRUE** if the element is enabled or **FALSE** if element is disabled.

isEnabled()

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class IsEnabled {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement loginButton = driver.findElement(By.id("loginButton"));

        Boolean responce = loginButton.isEnabled();
        if (responce) {
            System.out.println("Element is enabled");
        } else {
            System.out.println("Element is not enabled");
        }
        driver.close();
    }
}
```

HTML code:

```html
<html>
    <head></head><body><header>
    <title>Qspiders</title>
    <script type="text/javascript">
        $(function(){
        $("#example_0, #example_1").change(function(){
        $("#field1, #field2").val("").attr("readonly",true);
            if($("#example_0").is(":checked")){
                $("#field1").removeAttr("readonly");
                $("#field1").focus();
                }
            else if($("#example_1").is(":checked")){
                $("#field2").removeAttr("readonly");
                $("#field2").focus();
                }
            });
        });
    </script>
    </header>
        <center>
        <div class="conlabel">Have you started trading yet?</div>
```

```html
<table width="100">
    <tbody><tr>
        <td><label>
        <input onclick="document.getElementById('field1').disabled=false;document.getElementById('field2').disabled=true;" ="" type="radio" name="example"
        value="Yes" id="example_0" required="">Yes</label></td>
    </tr>
    <tr>
        <td><label>
        <input onclick="document.getElementById('field1').disabled=true;document.getElementById('field2').disabled=false;" type="radio" name="example"
        value="No" id="example_1" required="">No</label></td>
    </tr>
</tbody></table>
<li>
    <div class="conlabel">If Yes, then:</div>
    <input type="text" id="field1" name="field1" placeholder="" disabled="true">
</li><br>
<div class="conlabel">If No, then:</div>
<input type="text" id="field2" name="field2" placeholder="" disabled="true">
</center>
</body></html>
```

```java
package webElementCommands;

import org.openqa.selenium.By;

public class EnableEle {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("file:///C:/Users/PriyaPramod/Desktop/HTML/WebElementCommands/EnableDisable.html");

        WebElement yesTextBox = driver.findElement(By.id("field2"));
        WebElement yesRadioButton = driver.findElement(By.cssSelector("input#example_0"));

        Boolean yesTB = yesTextBox.isEnabled();
        Boolean yesRB = yesRadioButton.isSelected();

        if (!yesRB) {
            System.out.println("PASS: Radio button is not selected");
            if (!yesTB) {
                System.out.println("PASS: Yes text box is disabled");
            } else {
                System.out.println("FAIL: Yes text box is enabled even though Yes radio button is not selected");
            }
        } else {
            System.out.println("FAIL: Radio button is selected");
        }

        driver.close();
    }
}
```

Is_Selected

- This function checks if the check box or radio button is selected or not.
- If the check box or radio button is selected, it returns **TRUE** or else it returns **FALSE**.

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class IsSelected {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement checkBox = driver.findElement(By.id("keepLoggedInCheckBox"));

        Boolean responce = checkBox.isSelected();
        if (responce) {
            System.out.println("Check box is selected");
        } else {
            System.out.println("Check box is not selected");
        }
        driver.close();
    }
}
```

Get CSS value

- In order to get the CSS property value of any web element. This function is used to get the CSS property value.
- Example: Font-size, colour of web element.

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Get_CSS_font_family {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver","D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://www.facebook.com");
        WebElement emailTextBox = driver.findElement(By.id("email"));

        String fontsizeOfUserNameTextBox = emailTextBox.getCssValue("font-family");
        System.out.println("font size of email text box is: "+fontsizeOfUserNameTextBox);

        driver.close();
    }
}
```

```
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Get_CSS_Value {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver","D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://www.facebook.com");
        WebElement emailTextBox = driver.findElement(By.id("email"));

        String colorOfEmailTextBox = emailTextBox.getCssValue("color");
        System.out.println("Background color of email text box is: "+colorOfEmailTextBox);

        driver.close();
    }
}
```

Get_attribute:

- Gets the given attribute or property of the element.
- This method will first try to return the value of a property with the given name. If a property with that name doesn't exist, it returns the value of the attribute with the same name.
- If there's no attribute with that name, ``none`` is returned.

Args:
- Name - Name of the attribute/property to retrieve.

Script to get the value present in the text box.

Write a script to get the attribute value

```
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Get_Value {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver","D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement usernameTextBox = driver.findElement(By.id("username"));
        usernameTextBox.sendKeys("Admin");
        String valueInUsernameTextBox = usernameTextBox.getAttribute("value");

        System.out.println("Value entered in to username text box: "+valueInUsernameTextBox);
        driver.close();
    }
}
```

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Get_attribute {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver","D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://www.facebook.com");
        WebElement emailTextBox = driver.findElement(By.id("email"));
        String valueInEmailTextBox = emailTextBox.getAttribute("value");

        if((valueInEmailTextBox.length()==0))
        {
            System.out.println("Email text field is empty");
        }
        else
        {
            System.out.println("Email text field has value");
        }
        driver.close();
    }
}
```

```java
package webElementCommands;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Get_Value {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver","D:/Softwares/Drivers/chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.get("http://demo.actitime.com");
        WebElement usernameTextBox = driver.findElement(By.id("username"));
        WebElement passwordTextBox = driver.findElement(By.name("pwd"));


        String userPlaceHolder = usernameTextBox.getAttribute("placeholder");
        String passwordPlaceHolder = passwordTextBox.getAttribute("placeholder");

        System.out.println("Place holde value of username text box is: "+userPlaceHolder);
        System.out.println("Place holde value of placeholder text box is: "+passwordPlaceHolder);

        driver.close();
    }
}
```