



Selenium

Class 5

Agenda

Working with DropDowns

DropDown & Multiple Select Operation

- DropDown & Multiple Select Operations also works together and almost the same way.
- To perform any action, the first task is to identify the element group. It is a group, as DropDown /Multiple Select is not a single element.
- They always have a single name but they contains one or more than one elements in them/more than one option in DropDown and Multiple Select.
- The only difference between these two is deselecting statement & multiple selections are not allowed on DropDown

DropDown & Multiple Select Operation

To work with drop down we can choose it by ID, Name, Css & Xpath etc.

To perform any action on drop down element it is required to import '**import org.openqa.selenium.support.ui.Select**' package and to use it we need to create a new Select Object of class Select.

Selenium webdriver provides Select class, with help of select class we can handle dropdowns on the webpage

```
Select s = new Select()
```

Drop Down with Select Class

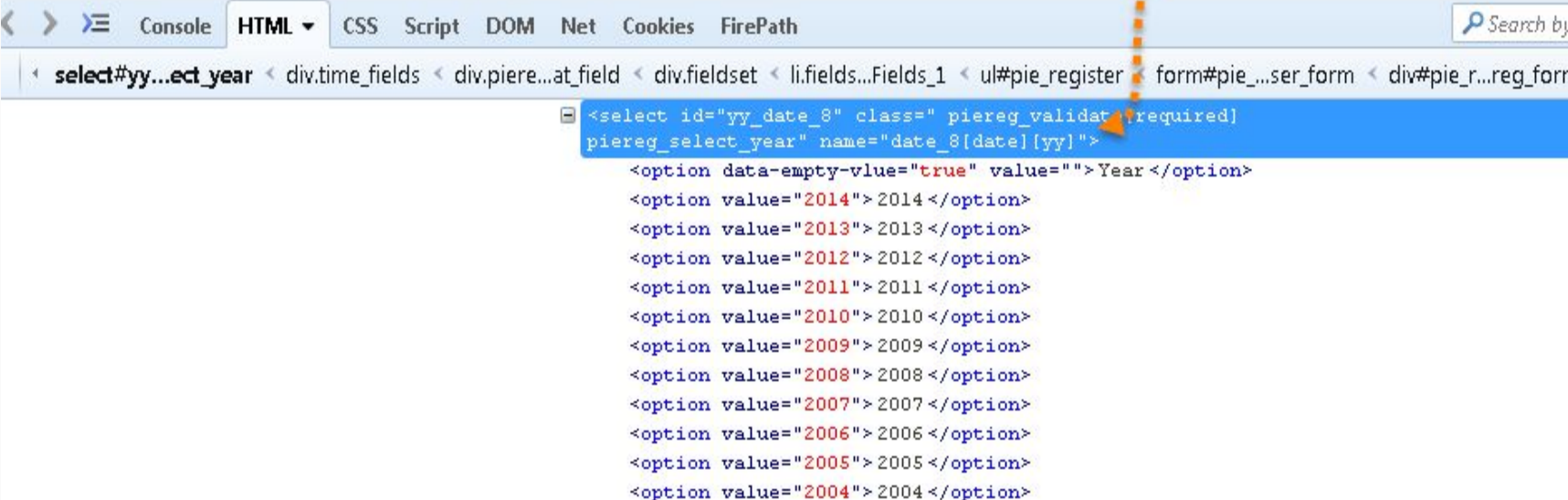
Date of Birth

3

Day

Year

Phone Number



```
<select id="yy_date_8" class=" pierereg_validation required"
pierereg_select_year" name="date_8[date][yy]">
  <option data-empty-vue="true" value="">Year </option>
  <option value="2014">2014 </option>
  <option value="2013">2013 </option>
  <option value="2012">2012 </option>
  <option value="2011">2011 </option>
  <option value="2010">2010 </option>
  <option value="2009">2009 </option>
  <option value="2008">2008 </option>
  <option value="2007">2007 </option>
  <option value="2006">2006 </option>
  <option value="2005">2005 </option>
  <option value="2004">2004 </option>
```

DropDown & Multiple Select Operation

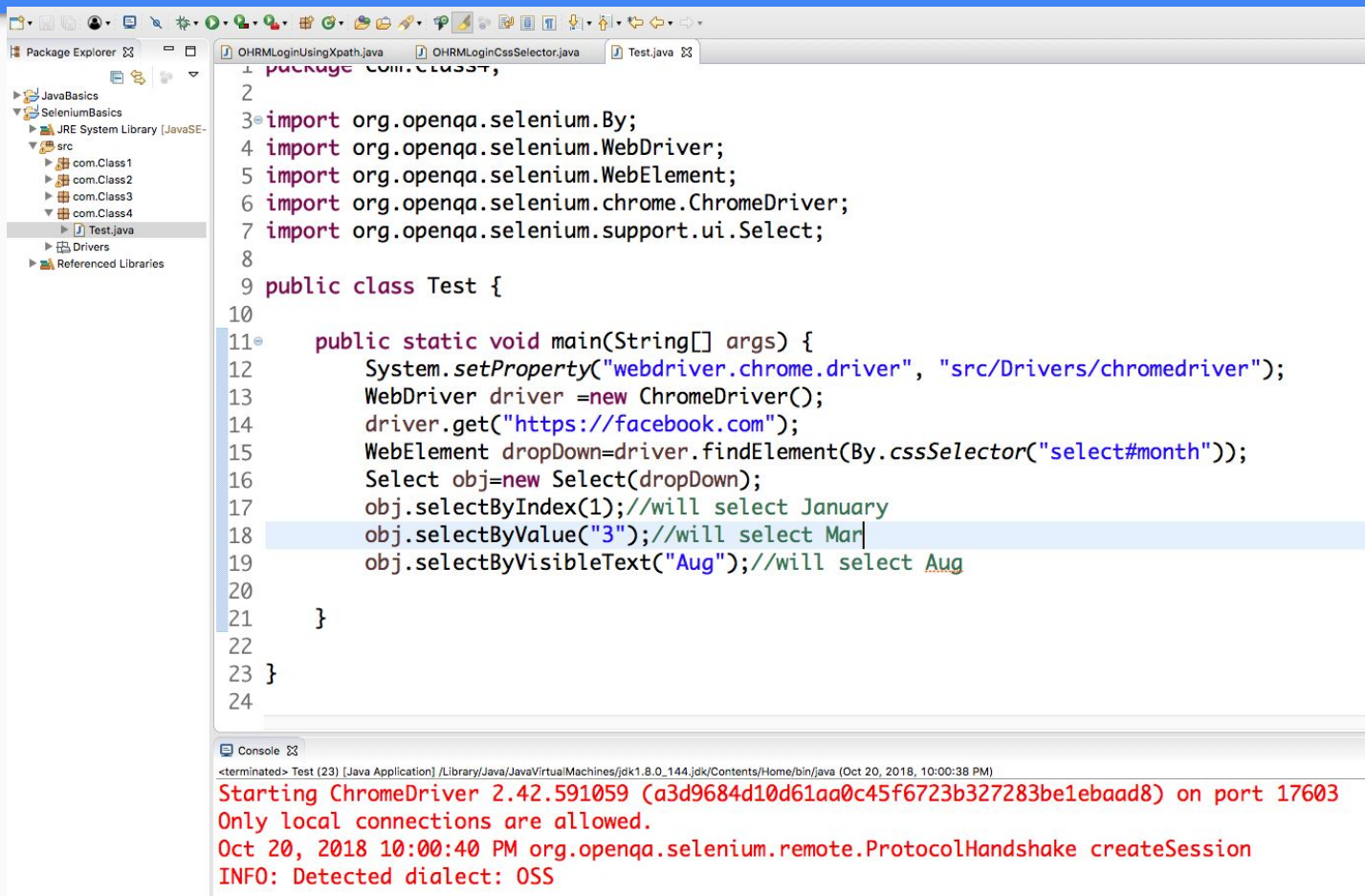
Dropdown are formed using select tag in html, if dropdown **is not** formed with select tag you **cannot use this Select** Class methods in selenium.

To Handle Drop Down And Multi Select List in Selenium we use the following types of Select Methods:

- selectByVisibleText Method
- selectByIndex Method
- selectByValue Method

Note: to verify if drop down allows multiple selection use method `isMultiple()`;

DropDown demo



The screenshot shows an IDE with a Package Explorer on the left and a code editor on the right. The Package Explorer shows a project structure with 'Test.java' selected. The code editor displays the following Java code:

```
1 package com.class2;  
2  
3 import org.openqa.selenium.By;  
4 import org.openqa.selenium.WebDriver;  
5 import org.openqa.selenium.WebElement;  
6 import org.openqa.selenium.chrome.ChromeDriver;  
7 import org.openqa.selenium.support.ui.Select;  
8  
9 public class Test {  
10  
11     public static void main(String[] args) {  
12         System.setProperty("webdriver.chrome.driver", "src/Drivers/chromedriver");  
13         WebDriver driver =new ChromeDriver();  
14         driver.get("https://facebook.com");  
15         WebElement dropDown=driver.findElement(By.cssSelector("select#month"));  
16         Select obj=new Select(dropDown);  
17         obj.selectByIndex(1);//will select January  
18         obj.selectByValue("3");//will select Mar|  
19         obj.selectByVisibleText("Aug");//will select Aug  
20  
21     }  
22  
23 }  
24
```

The console output at the bottom shows the following messages:

```
<terminated> Test (23) [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_144.jdk/Contents/Home/bin/java (Oct 20, 2018, 10:00:38 PM)  
Starting ChromeDriver 2.42.591059 (a3d9684d10d61aa0c45f6723b327283be1ebaad8) on port 17603  
Only local connections are allowed.  
Oct 20, 2018 10:00:40 PM org.openqa.selenium.remote.ProtocolHandshake createSession  
INFO: Detected dialect: OSS
```

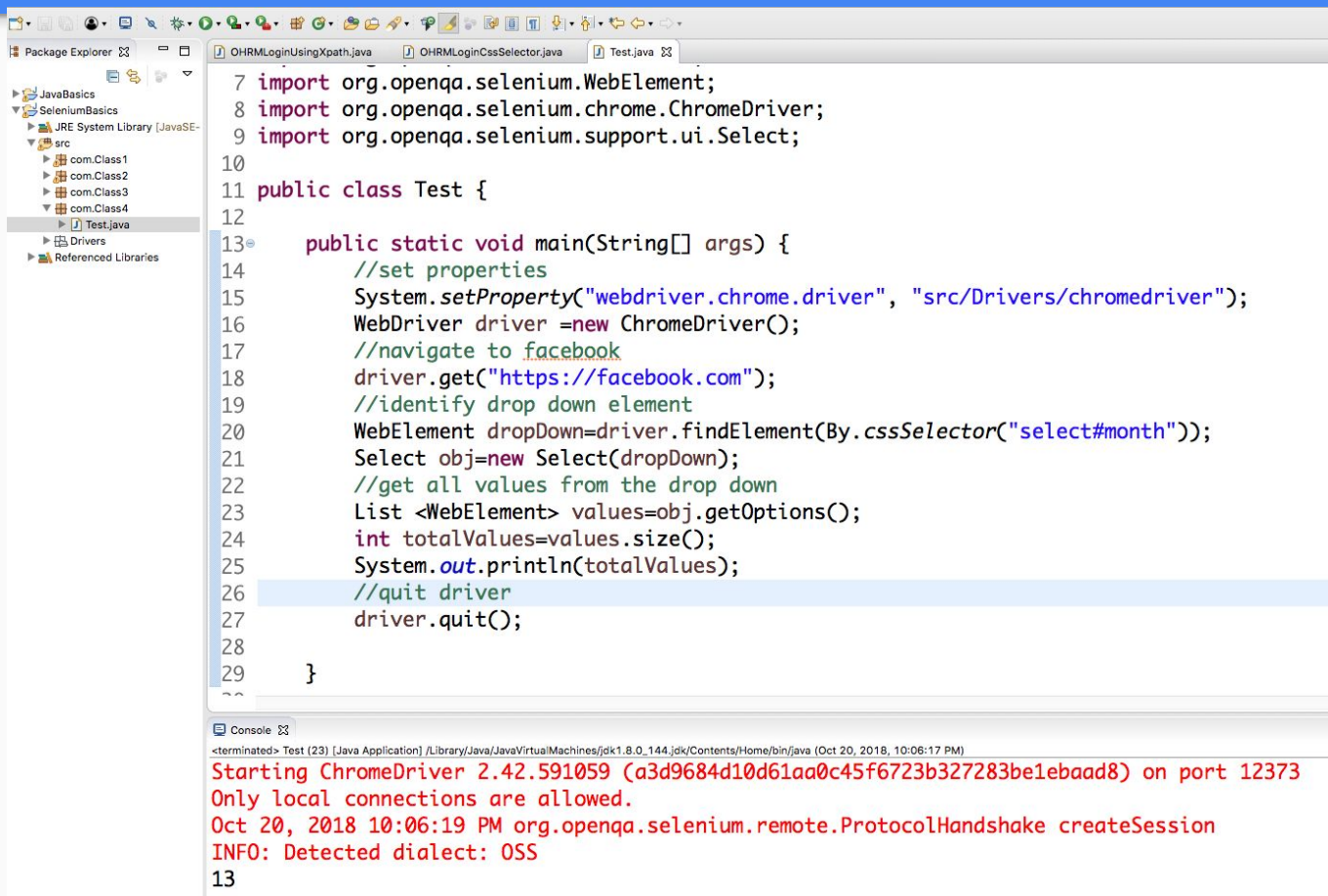
DropDown & Multiple Select Operation

`getOptions()` : `List<WebElement>` –This gets the all options belonging to the `Select` tag. It takes no parameter and returns `List<WebElements>`.

Command - `oSelect.getOptions();`

Sometimes you may like to count the element in the dropdown and multiple select box, so that you can use the loop on `Select` element.

DropDown getOptions()



The screenshot shows an IDE with a Package Explorer on the left and a code editor on the right. The Package Explorer shows a project structure with a 'Test.java' file. The code editor displays the following Java code:

```
7 import org.openqa.selenium.WebElement;
8 import org.openqa.selenium.chrome.ChromeDriver;
9 import org.openqa.selenium.support.ui.Select;
10
11 public class Test {
12
13     public static void main(String[] args) {
14         //set properties
15         System.setProperty("webdriver.chrome.driver", "src/Drivers/chromedriver");
16         WebDriver driver =new ChromeDriver();
17         //navigate to facebook
18         driver.get("https://facebook.com");
19         //identify drop down element
20         WebElement dropDown=driver.findElement(By.cssSelector("select#month"));
21         Select obj=new Select(dropDown);
22         //get all values from the drop down
23         List <WebElement> values=obj.getOptions();
24         int totalValues=values.size();
25         System.out.println(totalValues);
26         //quit driver
27         driver.quit();
28
29     }
30 }
```

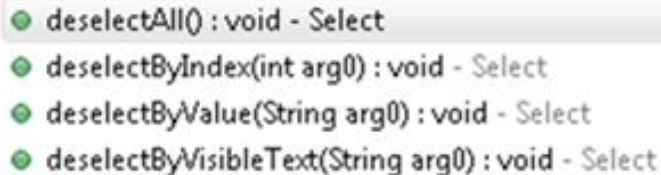
The console output at the bottom shows the following messages:

```
<terminated> Test (23) [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_144.jdk/Contents/Home/bin/java (Oct 20, 2018, 10:06:17 PM)
Starting ChromeDriver 2.42.591059 (a3d9684d10d61aa0c45f6723b327283be1ebaad8) on port 12373
Only local connections are allowed.
Oct 20, 2018 10:06:19 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
```

The line number 13 is highlighted in the code editor.

DeSelect Methods

- The way we select different values of DropDown & Multi Select, the same way we can also **deselect** the values.
- But the only challenge is these methods **do not work for DropDown** and **only work for Multi Select elements**.
- In case you want to deselect any pre-selected option, that can be done with either `deselectAll()`, `deselectByIndex`, `deselectByValue` and `deselectByVisibletext`.



```
deselectAll() : void - Select  
deselectByIndex(int arg0) : void - Select  
deselectByValue(String arg0) : void - Select  
deselectByVisibleText(String arg0) : void - Select
```

1. deselectAll() : void – Clear all selected entries. Valid when the SELECT supports multiple selections.

Command - `oSelect.deselectAll;`

2. deselectByIndex(int arg0) : void – Deselect the option at the given index.

Command - `oSelect.deselectByIndex;`

3. deselectByValue(String arg0) : void – Deselect all options that have a value matching the argument.

Command - `oSelect.deselectByValue;`

4. deselectByVisibleText(String arg0) : void – Deselect all options that display text matching the argument.

Command - `oSelect.deselectByVisibleText`

5. isMultiple() : boolean – Tells whether the SELECT element support multiple selecting options at the same time or not. It accepts nothing by returns boolean value(true/false).

Command - `oSelect.isMultiple();`

This is done by checking the value of the “multiple” attribute.