

When the locator is wrong, we get no such element exception. There is no exception by the name element not found. This is for driver.findElement.

```
1 package seleniumsessions;
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
8 public class FindElementsUseCases {
9
10     public static void main(String[] args) {
11
12         WebDriver driver = new ChromeDriver();
13         driver.get("https://naveenautomationlabs.com/opencart/index.php?route=account/login");
14
15         WebElement ele = driver.findElement(By.id("input-email11"));
16
17
18
19
```

## Driver.findElements

```
//[]
//0
```

```
19
20 List<WebElement> eleList = driver.findElements(By.className("test-naveen"));
21 System.out.println(eleList);
22 System.out.println(eleList.size());
23
```

It won't give error for wrong locator. It will give empty list and size would be zero.

Find elements can also work with one element-

```

17 //WebElement ele = driver.findElement(By.id("input-email"));
18 //NoSuchElementException : NSE
19
20 // List<WebElement> eleList = driver.findElements(By.className("test-naveen"));
21 // System.out.println(eleList);
22 // System.out.println(eleList.size());
23
24
25 List<WebElement> eleList = driver.findElements(By.id("input-email"));
26 System.out.println(eleList.size());
27

```

Create utility-

Will work and return true when one element is returned surely else false.

Check if element is present or not.

This is for checking if only one element is present.

```

34
35 public static boolean checkElementDisplayed(By locator) {
36     if(getElements(locator).size() == 1) {
37         System.out.println("element : " + locator + " is displayed on the page one time");
38         return true;
39     }
40     return false;
41 }
42
43
44
45 public static List<WebElement> getElements(By locator) {
46     return driver.findElements(locator);
47 }
48

```

Lets call the util methods—

```

// element : By.id: input-email is displayed on the page one time
// true

```

```
20 //NoSuchElementException : NSE
21
22 // List<WebElement> eleList = driver.findElements(By.className("test-naveen"));
23 // System.out.println(eleList);
24 // System.out.println(eleList.size());
25
26
27 // List<WebElement> eleList = driver.findElements(By.id("input-email"));
28 // System.out.println(eleList.size());
29
30 By emailId = By.id("input-email");
31
32 System.out.println(checkElementDisplayed(emailId));
33
34 }
```

Changed code by renaming the method name properly-

```
31
32 System.out.println(checkSingleElementDisplayed(emailId));
33
34 }
35
36
37 public static boolean checkSingleElementDisplayed(By locator) {
38     if(getElements(locator).size() == 1) {
39         System.out.println("element : " + locator + " is displayed on the page one time");
40         return true;
41     }
42     return false;
43 }
44
45
46
47 public static List<WebElement> getElements(By locator) {
48     return driver.findElements(locator);
49 }
50
51 }
```

Rechanged the method name 14.39

```

31
32     System.out.println(checkElementDisplayed(emailId));
33
34 }
35
36
37 public static boolean checkElementDisplayed(By locator) {
38     if(getElements(locator).size() == 1) {
39         System.out.println("element : " + locator + " is displayed on the page one time");
40         return true;
41     }
42     return false;
43 }
44
45
46
47 public static List<WebElement> getElements(By locator) {
48     return driver.findElements(locator);
49 }
50
51
52

```

Overload the method to check for more than one element-

So if we want to ensure that a particular element comes only that many number of times we can use this method.

```

47 }
48
49 public static boolean checkElementDisplayed(By locator, int expElementCount) {
50     if(getElements(locator).size() == expElementCount) {
51         System.out.println("element : " + locator + " is displayed on the page time"+ expElementCount);
52         return true;
53     }
54     return false;
55 }
56

```

Call the method

```

29 //
30 By emailId = By.id("input-naven");
31
32 System.out.println(checkElementDisplayed(emailId));
33
34
35 By forgotPwdLink = By.linkText("Forgotten Password");
36 if(checkElementDisplayed(forgotPwdLink, 2)) {
37     System.out.println("forgot pwd is coming 2 times on the page");
38 }
39
40

```

## Updated little code in sysout-

```
52
53 public static boolean checkElementDisplayed(By locator, int expElementCount) {
54     if(getElements(locator).size() == expElementCount) {
55         System.out.println("element : " + locator + " is displayed on the page " + expElementCount + " times");
56         return true;
57     }
58     return false;
59 }
60
```

Can be used instead of isDisplayed because this method won't throw exception if the element is not on the page. It will return zero.

## Move to element util-

```
89
90 public boolean checkElementDisplayed(By locator) {
91     if(getElements(locator).size() == 1) {
92         System.out.println("element : " + locator + " is displayed on the page one time");
93         return true;
94     }
95     return false;
96 }
97
98 public boolean checkElementDisplayed(By locator, int expElementCount) {
99     if(getElements(locator).size() == expElementCount) {
100         System.out.println("element : " + locator + " is displayed on the page " + expElementCount + " times");
101         return true;
102     }
103     return false;
104 }
105
```

## Xpath-

This xpath is for languages available links in google.com-

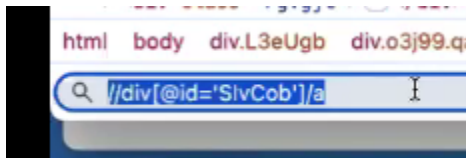
Google offered in: हिन्दी বাংলা తెలుగు मराठी தமிழ் ગુજરાતી ಕನ್ನಡ മലയാളം ਪੰਜਾਬੀ

If child is directly associated use single slash.

We want all the <a> under the <div> tag.



Xpath -



How to read- 32.29

We want the list of all <a> links not <div> links. Read from back to front.

```
19 List<WebElement> langLinksList = driver.findElements(By.xpath("//div[@id='SivCob']/a"));
20
```

Find language links on google

//9

```
1 package seleniumsessions;
2
3 import java.util.List;
4
5 import org.openqa.selenium.By;
6 import org.openqa.selenium.WebDriver;
7 import org.openqa.selenium.WebElement;
8 import org.openqa.selenium.chrome.ChromeDriver;
9
10 public class GoogleLanguageTest {
11
12     static WebDriver driver;
13
14     public static void main(String[] args) {
15
16         driver = new ChromeDriver();
17         driver.get("https://www.google.com/");
18
19         List<WebElement> langLinksList = driver.findElements(By.xpath("//div[@id='SIVCob']/a"));
20
21         System.out.println(langLinksList.size());
22
23     }
24
25 }
```

Get the text and print it-

```
//      हिन्दी
//      বাংলা
//      తెలుగు
//      मराठी
//      தமிழ்
//      ગુજરાતી
//      ಕನ್ನಡ
//      മലയാളം
//      ਪੰਜਾਬੀ
```

```
22
23     for(WebElement e : langLinksList) {
24         String text = e.getText();
25         System.out.println(text);
26     }
27
```

Click on text and break-

When we get the required text, click on it and break.

```
//      हिन्दी  
//      বাংলা  
//      తెలుగు  
//      मराठी
```

When marathi comes, click on it and break.

Design ocd for 9th.

```
21      System.out.println(langLinksList.size());  
22  
23      for (WebElement e : langLinksList) {  
24          String text = e.getText();  
25          System.out.println(text);  
26          if (text.equals("मराठी")) {  
27              e.click();  
28              break;  
29          }  
30      }  
31  
32  }
```

Create utility-

And call the utility



```
//      total number of elements: 9
//      English
//      हिन्दी
//      বাংলা
//      తెలుగు
//      தமிழ்
//      ગુજરાતી
//      ಕನ್ನಡ
//      മലയാളം
//      ਪੰਜਾਬੀ
```

```
9
10 public class GoogleLanguageTest {
11
12     static WebDriver driver;
13
14     public static void main(String[] args) {
15
16         driver = new ChromeDriver();
17         driver.get("https://www.google.com/");
18
19         By langLocator = By.xpath("//div[@id='SivCob']/a");
20
21         clickElement(langLocator, "मराठी");
22     }
23
24     public static void clickElement(By locator, String value) {
25         List<WebElement> eleList = driver.findElements(locator);
26         System.out.println("total number of elements: " + eleList.size());
27         for (WebElement e : eleList) {
28             String text = e.getText();
29             System.out.println(text);
30             if (text.equals(value)) {
31                 e.click();
32                 break;
33             }
34         }
35     }
36
37 }
38
```

Move the utility to element util-

```
105
106 public void clickElement(By locator, String value) {
107     List<WebElement> eleList = getElements(locator);
108     System.out.println("total number of elements: " + eleList.size());
109     for (WebElement e : eleList) {
110         String text = e.getText();
111         System.out.println(text);
112         if (text.equals(value)) {
113             e.click();
114             break;
115         }
116     }
117 }
```

Changed equals to contains-

Equals is very hard check we performed.

```
105
106 public void clickElement(By locator, String value) {
107     List<WebElement> eleList = getElements(locator);
108     System.out.println("total number of elements: " + eleList.size());
109     for (WebElement e : eleList) {
110         String text = e.getText();
111         System.out.println(text);
112         if (text.contains(value)) {
113             e.click();
114             break;
115         }
116     }
117 }
```

Now enter in google

Then suggestions come

Click on the one you want

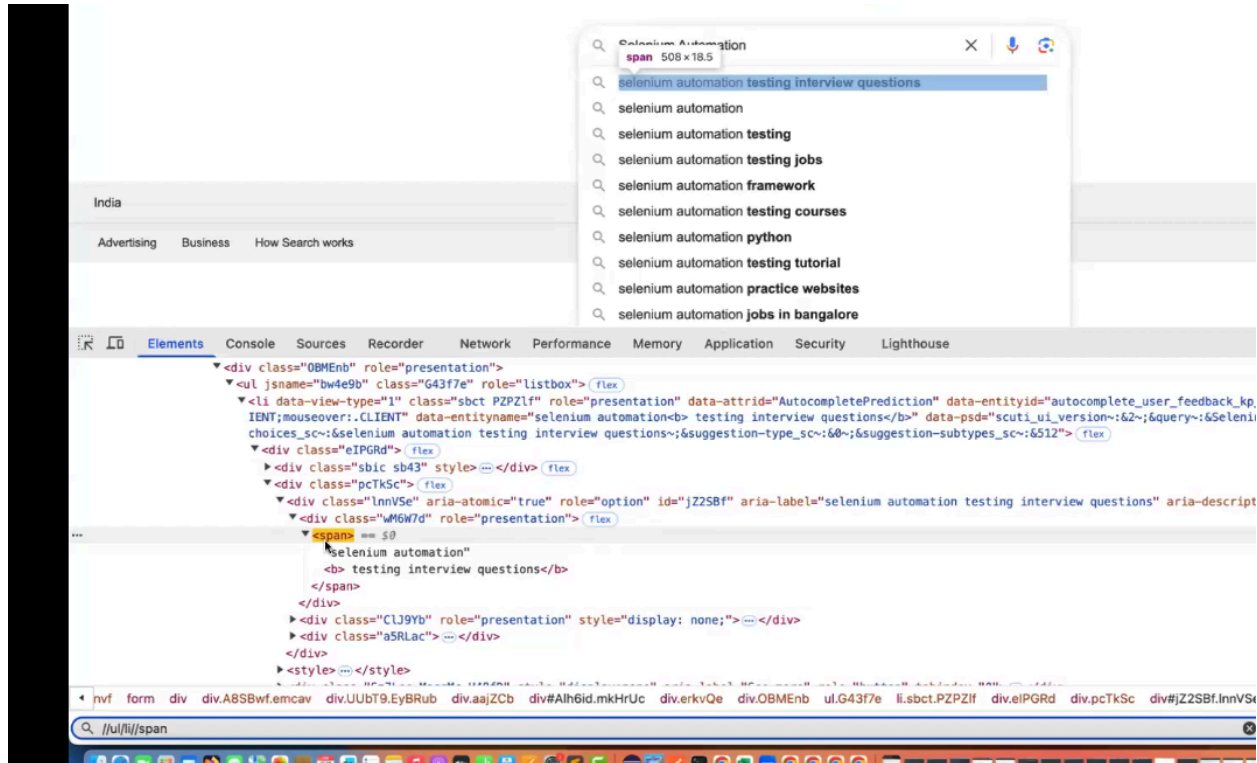
Then break

How to do it -

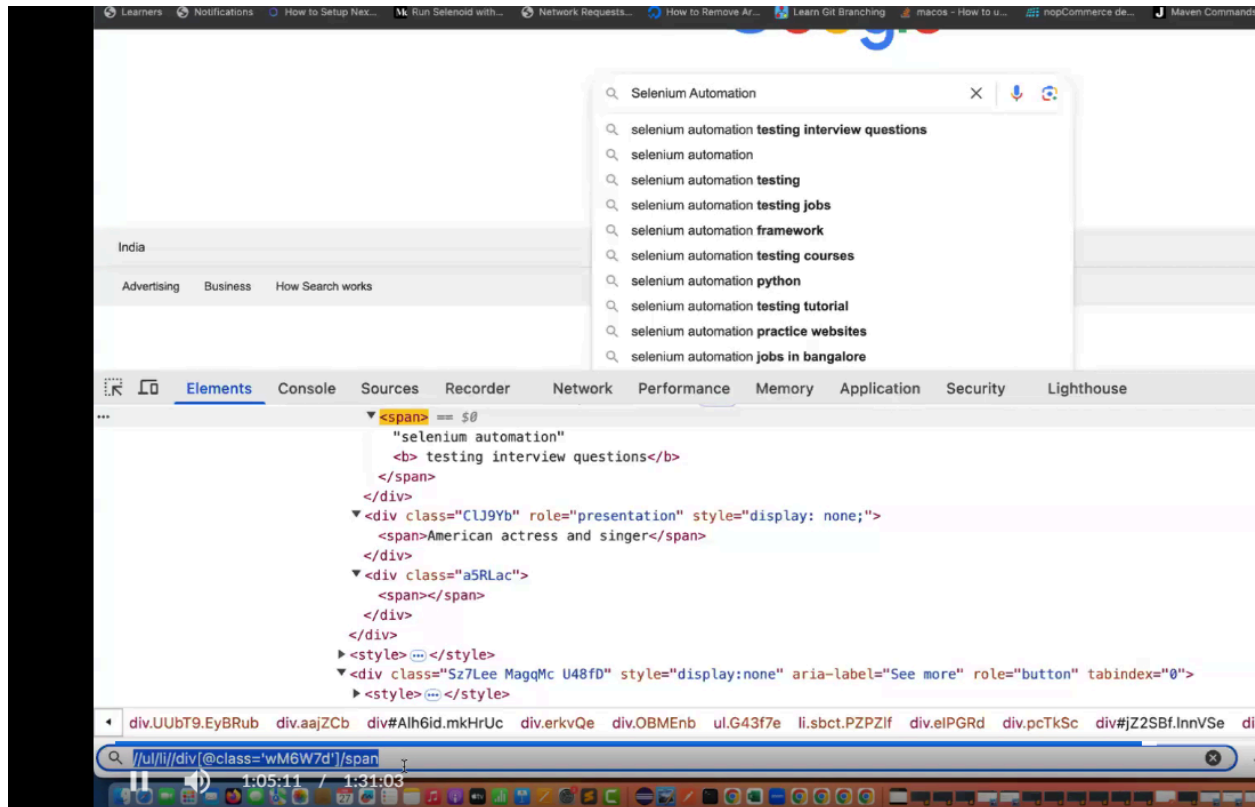
Find the web element of the search box

Pass values to it

Wait for some time for suggestions to come  
Find elements to capture suggestions  
When not a direct child use double slash-



Xpath to get all the options



Great code-

Captures all suggestions.

Used sleep to wait for sometime for values to appear.

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\* 13

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```
1 package seleniumsessions;
2
3 import java.util.List;
4
5 import org.openqa.selenium.By;
6 import org.openqa.selenium.WebDriver;
7 import org.openqa.selenium.WebElement;
8 import org.openqa.selenium.chrome.ChromeDriver;
9
10 public class GoogleSearchTest {
11
12     static WebDriver driver;
13
14     public static void main(String[] args) throws InterruptedException {
15
16         driver = new ChromeDriver();
17         driver.get("https://www.google.com/");
18
19         driver.findElement(By.name("q")).sendKeys("Selenium Automation");
20
21         Thread.sleep(3000);
22
23         List<WebElement> suggList = driver.findElements(By.xpath("//div[@class='wM6W7d']/span"));
24
25         System.out.println(suggList.size());
26
27         for(WebElement e : suggList) {
28             String text = e.getText();
29             System.out.println(text);
30         }
31
32
33 }
```

Click on python text and then exit-  
It will open new link with python.  
Captcha blocks it.



