Find Elements

- In order to handle the multiple web elements from the web page we use find_elements method.
- Find Elements command takes in by object as the parameter and returns a list of web elements.
- Following are the find_elements method used in selenium to get the list of web elements method.

```python
driver.find_elements(By.XPATH, "value")

driver.find_elements_by_id("id_")

driver.find_elements_by_name("name")

driver.find_elements_by_class_name("name")

driver.find_elements_by_tag_name("name")

driver.find_elements_by_link_text("text")

driver.find_elements_by_partial_link_text("Link_text")

driver.find_elements_by_css_selector("css_selector")

driver.find_elements_by_xpath("xpath")
```

```html
<html>
    <body>
        <center>
            <div>
                <a href="http://www.qspiders.com">qspiders</a>
                <a href="http://www.jspiders.com">jspiders</a>
                <br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
            </div>
            <br><br>
        </center>
    </body>
</html>
```

Pramod K S

Write a script to count the number of check boxes present in the web page?

```python
from selenium import webdriver

driver = webdriver.Chrome()
driver.get("https://www.google.co.in/")
driver.maximize_window()
driver.implicitly_wait(30)

elements = driver.find_elements_by_xpath("//a")

print("Number of links present in the page: ", len(elements))

driver.close()
```

Write a program to print the URL of all the links present in the google?

```python
from selenium import webdriver

driver = webdriver.Chrome()
driver.get("https://www.google.co.in/")
driver.maximize_window()
driver.implicitly_wait(30)

elements = driver.find_elements_by_xpath("//a")

print("Number of links present in the page: ", len(elements))

for ele in elements:
    URL = ele.get_attribute("href")
    print(URL)

driver.close()
```

Write a script to count no of images present in the webpage.

```python
from selenium import webdriver

driver = webdriver.Chrome()
driver.get("https://www.google.co.in/")
driver.maximize_window()
driver.implicitly_wait(30)

elements = driver.find_elements_by_xpath("//img")

print("Number of images present in the page: ", len(elements))

driver.close()
```

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Assignment:

1. Write a script to select first and last checkbox present on the webpage?
2. Write a script to select all the checkbox present in the webpage in reverse order?
3. Write a script to select all the alternative checkbox present on the webpage?
4. Write a script to print text of the links which is present on the google.com except empty string?

Sample HTML page for following assignment

```html
<html>
    <body>
        <div>
                <a href="http://www.qspiders.com">qspiders</a>
                <a href="http://www.jspiders.com">jspiders</a>
                <br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
                <input type="checkbox"><br><br>
        </div>
        <br><br>
        <div>
                <table border="1">
                    <tbody>
                        <tr>
                                <td>1</td>
                                <td>Java</td>
                                <td>300</td>
                        </tr>
                        <tr>
                                <td>2</td>
                                <td>Selenium</td>
                                <td>400</td>
                        </tr>
                        <tr>
                                <td>3</td>
                                <td>CRM</td>
                                <td>500</td>
                        </tr>
                    </tbody>
                </table>
        </div>
    </body>
</html>
```

1. Write a script to print the contents of the table.
2. Write a script to print all numbers present in the table.
3. Write a script to print sum of all the numbers present in the table.

Pramod K S

Difference between find element and find elements

Find Element	Find Elements
Return type is web element	Return type is list of web elements
If the specified locator is matching with the multiple elements, it returns first matching element.	If the specified locator is matching with the multiple elements it returns all the matching elements.
If the specified locator is not matching with any of the element then it will throw **NoSuchElementException**	If the specified locator is not matching with any of the element then it will not throw any exception. Instead of this it returns the empty list