"Working with HTML or WEB Tables"

1) **Count the Rows in the table :**

   - Open the website https://www.demoqa.com/webtables/
   - For counting the rows in the table, we need to access each of the rows separately. And also if we want to access elements in any of the rows we can access with XPATH separately.
   - To have a total count of all the rows in the table, we have to use a function FIND_ELEMENTS_BY_XPATH("") where we have to pass the common XPATH as follows for our demo website.

```
table_ele =
driver.find_elements_by_xpath("/html/body/div/div/di
v/div[2]/div[2]/div[1]/div[3]/div[1]/div[2]/div")
```

   - Now we just have to run the **len()** function on the list variable **table_ele.**

2) **Count the number of Columns :**

   - To have a total count of all the rows in the table, we have to use a function FIND_ELEMENTS_BY_XPATH("") where we have to pass the common XPATH as follows for our demo website.

```
print(len(driver.find_elements_by_xpath("/html/body/div/
div/div/div[2]/div[2]/div[1]/div[3]/div[1]/div[2]/di
v[1]/div/div")))
```

3) **Accessing all the elements or fields in the Table :**

   - For this work we will need loops to control the ROWS and COLUMN just like an array. But instead of array, we will use the XPATH and dynamically update them as follows.

```
for r in range(1, rows+1):
```

```
        for c in range(1, col+1):
            ele =
driver.find_element_by_xpath("/html/body/div/div/div
/div[2]/div[2]/div[1]/div[3]/div[1]/div[2]/div["+str
(r)+"]/div/div["+str(c)+"]")
            print(ele.text, end='   ')
        print()
```

"Scrolling A WebPage"

- There are three ways we can scroll down in a webpage. So let's start and open the website https://www.countries-ofthe-world.com/flags-of-the-world.html using Selenium.
- To scroll properly through Selenium we need to maximize the window opened after the driver.get() execution. So for that we need to do **driver.maximize_window().**
- We will describe the scrolling ways one by one.
- **Scroll By Pixel :**

```
driver.execute_script("window.scrollBy(0,1000)","")
```

- **Scroll By Element Finding out :**

```
element =
driver.find_element_by_xpath("/html/body/div[1]/div[
2]/div[2]/div[2]/div[2]/table[2]/tbody/tr[44]
/td[2]")
driver.execute_script("arguments[0].scrollIntoView()
;", element)
```

- **Scroll to the End :**

```
driver.execute_script("window.scrollBy(0,document.body.s
crollHeight)")
```