

WebTables in Selenium Webdriver

What is Table in HTML?

Table is a kind of *HTML* data which is displayed with the help of `<table>` tag in conjunction with the `<tr>` and `<td>` tags. Although there are other tags for creating tables, these are the basics for creating a table in HTML. Here tag `<tr>` defines the *row* and tag `<td>` defines the *column* of the table.

In HTML we use **`<th>` tag for headings** which defines heading of the table.

Example 1:

Let's take an example of above table and choose Column 1 of Row 2 which is 'Selenium' in above case:

Xpath

```
/html/body/div[1]/div[2]/div/div[2]/article/div/table/tbody/tr[2]/td[1]
```

If we divide this xpath in to three different parts it will be like this

- **Part 1** – Location of the table in the webpage
`</html/body/div[1]/div[2]/div/div[2]/article/div/>`
- **Part 2** – Table body (data) starts from here `<table/tbody/>`
- **Part 3** – It says table row 2 and table column 1 `<tr[2]/td[1]>`

If you use this xpath you would be able to get the Selenium cell of the table. Now what? How to get the text 'Selenium' from the table cell?

You need to use the 'getText()' method of the WebDriver element.

```
driver.findElement(By.xpath("/html/body/div[1]/div[2]/div/div[2]/article/div/table/tbody/tr[2]/td[1]")).getText();
```

Example 2:

Table operations are not always so simple like above because tables can contain a large amount of data and may be you need to pass rows and columns dynamically in your test case.

In that case you need to build your xpath with using variables and you will pass rows and columns to your xpath in the form of variables.

```
String sRow = "2";
```

```
String sCol = "1";
```

```
driver.findElement(By.xpath("/html/body/div[1]/div[2]/div/div[2]/article/div/table/tbody/tr["+sRow+"]/td["+sCol+"]")).getText();
```

Example 3:

The above example is still easy as at-least you know the row number and the column number to be fetched from the table and you are able to provide it in the xpath from external excel sheet or any source of data sheet. But what would you do when the row and columns are itself dynamic and all you know is the Text value of any cell only and you like to take out the correspondence values of that particular cell.

For example all you know is the Text 'Licensing' in the above example and you like to record the value for that particular column only such as Free & Paid.

```
String sColValue = "Licensing";
```

```
//First loop will find the 'CLOCK TWER HOTEL' in the first column
```

```
    for (int i=1;i<=3;i++){
```

```
        String sValue = null;
```

```
sValue =
```

```
driver.findElement(By.xpath(".*[@id='post2924']/div/table/tbody/tr[1]/th["+i+"]")).getText();
```

```
        if(sValue.equalsIgnoreCase(sColValue)){
```

```
// If the sValue match with the description, it will initiate one more inner loop for all the columns of 'i' row
```

```
            for (int j=1;j<=2;j++){
```

```
String sRowValue=
```

```
driver.findElement(By.xpath(".*[@id='post2924']/div/table/tbody/tr["+j+"]/td["+i+"]")).getText();
```

```
                System.out.println(sRowValue);
```

```
            }
```

```
        break;
```

```
    }
```

```
}
```

