

Selenium Day 3

- Testing CSS elements
- Acquiring tables
- Test an array of class
- Use the driver to navigate

We are going to revisit

https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html and verify the color of the table row. This page uses JavaScript

Build a new test (Or reuse an existing one and comment out the existing tests)

Walk through the page. Point out how it works. (JavaScript not form submit) and get the object names.

```
public static WebDriver driver;
public static String URL =
    "https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html";
//going to have two tests
@BeforeClass
public static void setupTest() {
    System.setProperty("webdriver.chrome.driver",
        "C:\\Users\\lee_c\\OneDrive\\Selenium\\chromedriver\\chromedriver.exe");
    driver = new ChromeDriver();
    driver.get(URL);
}

@AfterClass
public static void teardownTest() {
    driver.close();
}
```

Create a new test called testOverweight(){}

```
WebElement feet = driver.findElement(By.id("feet"));
WebElement inches = driver.findElement(By.id("inches"));
WebElement pounds = driver.findElement(By.id("pounds"));
WebElement calc = driver.findElement(By.id("calc"));
feet.sendKeys("6");
inches.sendKeys("0");
pounds.sendKeys("150");
//formElements[2].submit();//fails because not in a form
calc.click();
```

I want to test the table to ensure background colors are correct

Get the table and check the fourth row has a purple background (could also test using css class)

```
//check the exact col
//get the table
WebElement bmiTable = driver.findElement(By.id("bmi_table"));
//can find elements in webElement
WebElement row3 = bmiTable.findElement(By.xpath("//tr[4]"));
System.out.println(row3.getCssValue("background-color"));
```

Run the program, you see that the background color is rgba(197, 190, 225, 1)

Now let us test where the column holds Overweight. We will check the background color of this

```
List<WebElement> rows = bmiTable.findElement(By.tagName("tr"));
//to get each column in eachrow
for (WebElement row : rows) {

    List<WebElement> cols = row.findElement(By.tagName("td"));
    //find the expected col and check background
    for (WebElement column : cols) {
        if (column.getText() == "Overweight") {
            assertEquals("Background Color purple", "rgba(197, 190, 225, 1)",
                row.getCssValue("background-color"));
        } //end if
    } //end for col
} //end for row
```

Test an Array

- Build a class to hold the data and results, have the class ready
 - Add to testing part of project, update the package
- Build an array of the class
- Walk through the array, and put the values into the assert
- For first test, put @Ignore instead of @Test
- Build a method called testArray

```
WebElement recalc;
WebElement bmiNum;
int test = 1;
BMIData[] data = new BMIData[4];
data[0] = new BMIData("5", "5", "100", "16.6", "Underweight");
data[1] = new BMIData("6", "1", "150", "19.8", "Normal");
data[2] = new BMIData("6", "0", "184", "25", "Overweight");
data[3] = new BMIData("5", "10", "250", "35.9", "Obese");

for (test = 0; test < data.length; test++) {
    driver.get(URL);
    bmiNum = null;
    WebElement feet = driver.findElement(By.id("feet"));
    WebElement inches = driver.findElement(By.id("inches"));
    WebElement pounds = driver.findElement(By.id("pounds"));
    WebElement calc = driver.findElement(By.id("calc"));

    feet.sendKeys(data[test].getFeet());
    inches.sendKeys(data[test].getInches());
    pounds.sendKeys(data[test].getWeight());
    calc.click();

    recalc = driver.findElement(By.linkText("Recalculate BMI"));

    WebElement bmiTable = driver.findElement(By.id("bmi_table"));
    List<WebElement> rows = bmiTable.findElement(By.tagName("tr"));
    //to get each column in eachrow
```

```
for (WebElement row : rows) {  
    List<WebElement> cols = row.findElements(By.tagName("td"));  
    //find the expected col and check background  
    for (WebElement column : cols) {  
        if (row.getText().contains(data[test].getResult())) {  
            assertEquals("Background Color purple", "rgba(197, 190, 225, 1)",  
                row.getCssValue("background-color"));  
        } //end if  
    } //end for col  
} //end for row  
  
recalc.click();  
} //end for
```