



# Page Objects pattern

Automation bootcamp - day 5

# Page Objects - What is it? Why should we use it?



"Model Web Pages in classes". A page class should expose to the test script all the possible behavior the user can do. It contains the definition for its WebElements and methods with the functionalities the web page exposes.

- Take advantage of OOP
- Reduce maintenance time when UI changes
- Reduce duplicated code
- Increase test case readability
- Ease code sharing

# Attributes - @FindBy

We can define class attributes referring to certain WebElements.

```
@FindBy(how = How.XPATH, using = "//input[@name='email']")  
private WebElement emailUser;
```

# Attributes - When not to use @FindBy

We should not use @FindBy annotation if the WebElement is dynamically generated. For example, when we have a table and we want to interact with some of its content (click a student name in this case).

In this case we should create a method that receives the student name and with an xpath goes and finds it.

### All Students

These students are in classrooms to which you are assigned as primary or secondary teacher.

Total Selected: 0 Action ▼ Export

\* This is pre-calculated data.

<input type="checkbox"/>	Student Name	Grade	Enrollment Approved	Alerts *	Special Programs	Learning Coach	School	Contact Info
<input type="checkbox"/>	ALPradIK1, QADemoST1	1	03/15/11	17		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK3, QADemoST3_DP-15895	3	03/15/11	14		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK4, QADemoST4	4	03/15/11	23		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK5, QADemoST5	5	03/15/11	14		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK6, QADemoST6	6	03/15/11	14		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK7, QADemoST7	7	03/15/11	14		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK8, QADemoST8	8	03/15/11	14		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	ALPradIK9, QADemoST9	9	03/15/11	7		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	Bjmvqgh, Alexandra Grade 6	6	09/09/12	12		Bjmvqgh, Angela	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	Bqecynb, Mercy	6	11/21/11	14		Bqecynb, Newton	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	CNRtcfKM3-X, QADemoST3-B	3	03/15/11	8		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	CNRtcfKM4-X, QADemoST4-B	4	03/15/11	8		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>
<input type="checkbox"/>	CNRtcfKM5-X, QADemoST5-B	5	03/15/11	19		ZKOqzcAS, QADemoLC	Demo LMS	<a href="#">i</a>

1 - 38 of 38
View on page: 25 | 50 | 75

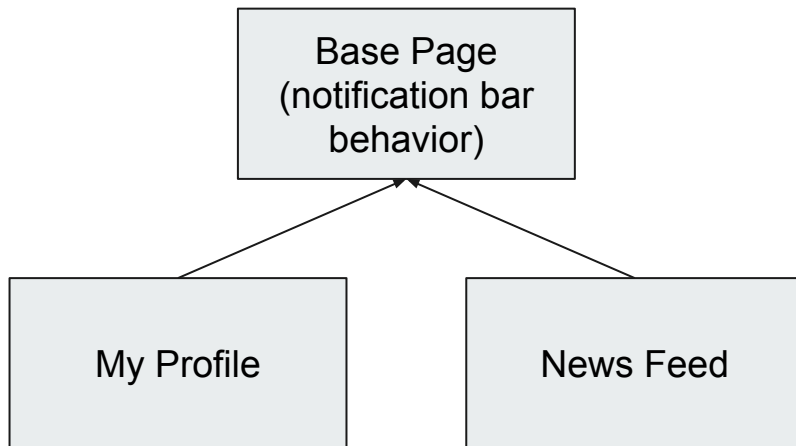
# Instantiation - PageFactory

PageFactory initializes all the defined WebElements in the page object class.

```
public OpenCartBasePage(WebDriver driver) {  
    this.driver = driver;  
  
    if(!SeleniumUtils.isPresent(pageLoadedLocator, 90)){  
        throw new IllegalStateException("Page did not load.");  
    }  
  
    PageFactory.initElements(driver, this);  
}
```

# Inheritance - Using a base page

When we find that certain behavior or parts of a web page repeat among several others, we can take advantage of OOP and model the Page Objects accordingly. For example, a Menu shown across all web pages of an application is a good candidate to be (an abstract) super class.



# Exercise 1



Rewrite **google vs bing** test case to user page objects pattern.

# Exercise 2



## Nivel 1:

1. Ir a la pagina principal de mercadolibre.com.uy
2. En la home page existe una seccion llamada “Ofertas de la semana” en un slide
3. Tomar el primer elemento del slide, capturar 3 valores : Precio, nombre del producto, y porcentaje de descuento
4. Clickearlo para ir a la publicacion
5. Validar en la publicación actual que el precio, nombre y porcentaje coinciden con la home page

## Nivel 2:

1. Hacer Nivel 1
2. Volver a la home page
3. Repetir steps 2 al 5 de Nivel 1 con todos los elementos que se encuentran en el slide “Ofertas de la semana”