POM(Page object Model):

- It is an object repository

Why repository?

As per the role of automation we should not hardcode the element in test scripts, instead we should get elements from object repository, because in a Agile process, due to frequent requirement changes modifications and maintenance of elements is tedious job.

What is object repository/ element repository?

It is a collection of elements locators and business libraries in one place and its shared by multiples.

What is POM Design pattern?

It is a Java design pattern, preferred by Google to maintain elements in well organised way

What is page factory Design pattern?

It is an extended version of POM design pattern, which is used to access the elements available in form.

Advantages of POM?

- We can handle stale element reference exception.
- Reusability of element, no need to write Xpath again and again.

- Modifications in repository is easy, when GUI changes frequently.
- Maintenance of elements is easy because all elements are kept in one place
- More readability

What is stale element reference exception?

Whenever the address of an element got expired we will get stale element reference exception.

There are three stages in POM

1. Declaration
2. Initialization
3. Utilization

Declaration:

We declare the elements through below syntax

```
@FindBy(locator=”value”)
Private webElement component name;
```

Initialization :

Here we have to create a constructor shown as below

```
Public Constructor(WebDriver driver)
{
PageFactory.initElements(driver,this);
}
```

Utilization:

We are going to create simple method.

```
Public void demo()
{
componentName.action;

}
```

Rules for POM:

- Class name should be same as page name.
- For every new page we have to create new class
- Except typing and clicking we need to generate getter and setter methods.