

Page Object Design Pattern

```
<dependencies>
  <dependency>
    <groupId>org.seleniumhq.selenium</groupId>
    <artifactId>selenium-java</artifactId>
    <version>4.11.0</version>
  </dependency>
<!--
https://mvnrepository.com/artifact/io.github.bonigarcia/webdrivermanager -->
<dependency>
  <groupId>io.github.bonigarcia</groupId>
  <artifactId>webdrivermanager</artifactId>
  <version>5.4.1</version>
</dependency>
<!--
https://mvnrepository.com/artifact/org.testng/testng
-->
<dependency>
  <groupId>org.testng</groupId>
  <artifactId>testng</artifactId>
  <version>7.7.1</version>
  <scope>test</scope>
</dependency>
<!--
https://mvnrepository.com/artifact/com.aventstack/extentreports -->
<dependency>
  <groupId>com.aventstack</groupId>
  <artifactId>extentreports</artifactId>
  <version>5.0.9</version>
</dependency>
<dependency>
  <groupId>org.apache.poi</groupId>
  <artifactId>poi-ooxml-schemas</artifactId>
  <version>4.1.1</version>
```

```

</dependency>
<!--
https://mvnrepository.com/artifact/org.apache.poi/poi -->
<dependency>
    <groupId>org.apache.poi</groupId>
    <artifactId>poi</artifactId>
    <version>4.1.1</version>
</dependency>
<!--
https://mvnrepository.com/artifact/org.apache.poi/poi-ooxml -->
<dependency>
    <groupId>org.apache.poi</groupId>
    <artifactId>poi-ooxml</artifactId>
    <version>4.1.1</version>
</dependency>
<!--
https://mvnrepository.com/artifact/commons-io/commons-io -->
<dependency>
    <groupId>commons-io</groupId>
    <artifactId>commons-io</artifactId>
    <version>2.11.0</version>
</dependency>

</dependencies>

```

Step 3: Create the Base class

```

package com.ninjademo.qa.base;
import java.awt.Desktop;
import java.io.File;
import java.io.IOException;
import java.lang.reflect.Method;

```

```

import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.ITestContext;
import org.testng.ITestResult;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.AfterSuite;
import org.testng.annotations.AfterTest;
import org.testng.annotations.BeforeSuite;
import org.testng.annotations.BeforeTest;
import com.aventstack.extentreports.ExtentReports;
import com.aventstack.extentreports.ExtentTest;
import
com.aventstack.extentreports.reporter.ExtentSparkRep
orter;
public class TestBase {

    // add the code to open the browser
    // add the code to generate extent report

    public static ExtentReports ex;
    public static WebDriver driver ;
    public static ExtentTest extentTest;

    public static void openBrowser()
    {
        driver = new ChromeDriver();
        driver.manage().window().maximize();
        driver.manage().deleteAllCookies();

        driver.get("https://tutorialsninja.com/demo/index.ph
p?route=common/home");
    }

    @BeforeSuite // this will the first method
exeucted before the suite of test cases run
    public void InitializeExtentReport() throws
IOException

```

```

    {
        ex = new ExtentReports();
        ExtentSparkReporter sparkreporter = new
ExtentSparkReporter("projectReport.html");
        ex.attachReporter(sparkreporter);
        ex.setSystemInfo("OS",
System.getProperty("os.name"));
        ex.setSystemInfo("JAVA",
System.getProperty("os.name"));
        ex.setSystemInfo("Browser", "Chrome");
        ex.setSystemInfo("SprintTest", "Sprint1");
    }

    @AfterSuite
    public void generateReports() throws IOException
    {
        ex.flush();
        Desktop.getDesktop().browse(new
File("projectReport.html").toURI());
    }

    @BeforeTest // this method will execute before
the tests in the runner file begin
    public void getNameMethod(ITestContext context)
    {
        extentTest =
ex.createTest(context.getName());
    }

    @AfterMethod
    public void generateTestStatus(Method
m, ITestResult result)

    {

```

```
        if(result.getStatus() ==
ITestResult.FAILURE)
        {
            System.out.println("capture
Screenshot");
            extentTest.fail(result.getThrowable());
        }
        else if (result.getStatus() ==
ITestResult.FAILURE)
        {
            extentTest.pass(m.getName() + "is
passed");
        }

    }

}
```