

POM.xml File:

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://
maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>org.example</groupId>
  <artifactId>EcommerceProject</artifactId>
  <version>1.0-SNAPSHOT</version>
<dependencies>
  <!-- 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/org.seleniumhq.selenium/selenium-
java -->
  <dependency>
    <groupId>org.seleniumhq.selenium</groupId>
    <artifactId>selenium-java</artifactId>
    <version>4.9.1</version>
  </dependency>
  <!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-
http-jdk-client -->
  <dependency>
    <groupId>org.seleniumhq.selenium</groupId>
    <artifactId>selenium-http-jdk-client</artifactId>
    <version>4.9.1</version>
  </dependency>
  <dependency>
    <groupId>org.apache.poi</groupId>
    <artifactId>poi-ooxml</artifactId>
    <version>5.2.3</version>
  </dependency>
  <dependency>
    <groupId>io.github.bonigarcia</groupId>
    <artifactId>webdrivermanager</artifactId>
    <version>5.3.2</version>
  </dependency>

  <dependency>
    <groupId>com.aventstack</groupId>
    <artifactId>extentreports</artifactId>
    <version>5.0.9</version>
  </dependency>
  <dependency>
    <groupId>org.apache.logging.log4j</groupId>
    <artifactId>log4j-api</artifactId>
    <version>2.20.0</version>
  </dependency>
  <dependency>
    <groupId>log4j</groupId>
    <artifactId>log4j</artifactId>
    <version>1.2.17</version>
  </dependency>
</dependencies>
<properties>
  <maven.compiler.source>11</maven.compiler.source>
</properties>
</project>
```

```
<maven.compiler.target>11</maven.compiler.target>
</properties>
```

```
</project>
```

Util Package -> Listener Class:

```
package utils;
```

```
import extentReport.ExtentReport;
import org.openqa.selenium.WebDriver;
import org.testng.ITestContext;
import org.testng.ITestListener;
import org.testng.ITestResult;
```

```
public class Listener implements ITestListener {
    public static WebDriver driver;
    ExtentReport extentReport = new ExtentReport();
```

```
    @Override
    public void onStart(ITestContext context) {
        System.out.println("Test case Execution Started"+context);
        Logging.info("Test case Execution Started");
    }
```

```
    @Override
    public void onFinish(ITestContext context) {
        System.out.println("Test case execution finished"+context);
        Logging.info("Test case execution finished");
    }
```

```
    @Override
    public void onStart(ITestResult result) {
        System.out.println("Test case execution started"+result.getTestName());
        Logging.info("Test case execution started"+result.getTestName());
    }
```

```
    @Override
    public void onSuccess(ITestResult result) {
        System.out.println("Test case got passed "+result.getTestName());
        Logging.info("Test case got passed"+result.getTestName());
    }
```

```
    @Override
    public void onTestFailedWithTimeout(ITestResult result) {
        System.out.println("Test case got failed with
timeout"+result.getTestName());
        Logging.error("Test case got failed with
timeout"+result.getTestName());
    }
```

```
    @Override
    public void onTestFailure(ITestResult result) {
        System.out.println("Test case got failed "+result.getTestName());
        Logging.error("Test case got failed"+result.getTestName());
        extentReport.fail("Test case got failed"+result.getTestName());
    }
```

```
    @Override
    public void onTestSkipped(ITestResult result) {
        System.out.println("Test case got skipped" +result.getTestName());
        Logging.error("Test case got skipped" +result.getTestName());
    }
```

```

    }

    @Override
    public void onTestFailedButWithinSuccessPercentage(ITestResult result) {
        System.out.println("Test Case Got failed Partially"+result.getTestName());
        Logging.info("Test Case Got failed Partially"+result.getTestName());
    }
}

```

Util Package ->Logging Class:

```

package utils;

import org.apache.log4j.Logger;

public class Logging {

    private static Logger log = Logger.getLogger(Logging.class.getName());

    public static void startTestCase(String testCaseName)
    {
        log.info("*****");
        log.info("@@@@@@@@@@@@@@@@@@@@@@@@@@@@ starting the "+testCaseName+"@@@@@@@@@@@@@@@@@@@@@@@@");
        log.info("*****");
    }

    public static void endTestCase()
    {
        log.info("*****Test case End*****");
    }

    public static void info(String message)
    {
        log.info(message);
    }

    public static void warn(String message)
    {
        log.warn(message);
    }

    public static void error(String message)
    {
        log.error(message);
    }

    public static void fatal(String message)
    {
        log.fatal(message);
    }

    public static void debug(String message)
    {
        log.debug(message);
    }

    public static void trace(String message)
    {
        log.trace(message);
    }
}

```

```
}  
}
```

Utils Package→Utility class:

```
package utils;
```

```
import dataProvider.ConfigFileReader;  
import org.apache.commons.io.FileUtils;  
import org.openqa.selenium.By;  
import org.openqa.selenium.OutputType;  
import org.openqa.selenium.TakesScreenshot;  
import org.openqa.selenium.WebDriver;
```

```
import java.io.File;  
import java.io.IOException;
```

```
public class Utility {
```

```
    public static String captureScreenshot(WebDriver driver) throws IOException  
{  
        TakesScreenshot ts =(TakesScreenshot)driver;  
        File srcFile = ts.getScreenshotAs(OutputType.FILE);  
        File destFile = new File("Screenshots/"+System.currentTimeMillis()  
+".png");  
        FileUtils.copyFile(srcFile,destFile);  
        return destFile.getAbsolutePath();  
    }  
}
```

```
    public static void login(WebDriver driver)  
    {  
        driver.findElement(By.xpath("//a[text()='Login']")).click();  
        driver.findElement(By.xpath("//  
input[@id='username']")).sendKeys(ConfigFileReader.getUserName());  
        driver.findElement(By.xpath("//  
input[@id='password']")).sendKeys(ConfigFileReader.getPassword());  
        driver.findElement(By.xpath("//input[@value='Log In']")).click();  
    }  
}
```

extentReport Package ->ExtentReport Class:

```
package extentReport;

import com.aventstack.extentreports.ExtentReports;
import com.aventstack.extentreports.ExtentTest;
import com.aventstack.extentreports.Status;
import com.aventstack.extentreports.reporter.ExtentSparkReporter;
import org.openqa.selenium.WebDriver;
import utils.Logging;

import java.io.IOException;

public class ExtentReport {

    ExtentReports extentReports;
    ExtentSparkReporter spark;
    ExtentTest test;

    public ExtentReport()
    {
        extentReports=new ExtentReports();
        spark= new ExtentSparkReporter("Reports\\RelevelTest.html");
        spark.config().setDocumentTitle("Relevel Automation Test Suite");
        extentReports.attachReporter(spark);
        extentReports.setSystemInfo("project Name","herokuapp");
    }

    public void pass(String text)
    {
        test.log(Status.PASS,text);
    }

    public void fail(String text)
    {
        test.log(Status.FAIL,text);
    }

    public void info(String text)
    {
        test.log(Status.INFO,text);
    }

    public void flush(String text)
    {
        extentReports.flush();
    }

    public ExtentTest createTest(String testName)
    {
        test =extentReports.createTest(testName);
        Logging.startTestCase(testName);
        return test;
    }

    public void addScreenshot(WebDriver driver) throws IOException {
        test.addScreenCaptureFromPath(utils.Utility.captureScreenshot(driver));
    }
}
```

Context package -> TestContext Class:

```
package Context;

import dataProvider.ReadWriteExcel;
import extentReport.ExtentReport;

import java.io.IOException;

public class TestContext {

    private ExtentReport extentReport;
    private ReadWriteExcel readWriteExcel;

    public TestContext() throws IOException {
        extentReport=new ExtentReport();
        readWriteExcel =new ReadWriteExcel();
    }

    public ExtentReport getExtentReport()
    {
        return extentReport;
    }

    public ReadWriteExcel getExcelObject()
    {
        return readWriteExcel;
    }
}
```