The following tools are used in this project, we need to download or install these in our computer, and set up some environment variable.

1. Intellij idea is a Jave IDE. intellij includes maven and TestNG plugins, that means we no need to install these plugins manually. So it is convenient.

2. Maven: is a build automation tool used primarily for Java projects.

When the environment is ready, we start to configure the project structure.

The first step is creating a maven project. The maven project includes the following parts.

The second step is adding some required dependencies or maven plug-ins into pom.xml file.

Maven will dynamically download Java libraries and Maven plug-ins from the maven Central Repository according to the pom.xml file, and stores them in a local cache. Once the pom.xml file is updated, the local cache will be updated by maven automatically.

1. Selenium: Selenium is a set of different software tools each with a different approach to supporting test automation. For this project, we use selenium to automate browser, locate the web elements and compare the expected test results against the actual application behavior.
2. TestNG: is an open source automated testing framework; it can produce html reports of execution, add annotations and provide kinds of assertion methods. And we use this run multiple test cases.
3. Log4j: is a logging framework, it can load the default logging information or customized logging information into console table.
4. ExtentReport: a HTML reporting library, it can make beautiful report.

The third step is creating some basic methods.

That’s all to configure the project, and then we can create test scripts.

Now, I will show you the demo.

The first demo is to run the single test case.