**Maven Build Management Tool:**

1. What is Maven? & Why Maven?

Apache Maven is a software project management and build management tool for Java Frameworks.

• Central repository to get dependencies

• Maintaining common structure across the organization

• Flexibility in Integrating with CI tools

• Plugins for Test framework execution.

1. Download binary file from Maven official website and install it.
2. Set Maven Home path to environment variable.
3. Set path variable till bin folder.
4. Verify the Maven configuration is done properly in command prompt.

Type: mvn --version

1. Creating Maven project from command prompt.

mvn archetype:generate -DgroupId=<project –packaging>

-DartifactId= <project-name>

-DarchetypeArtifactId=maven-archetype-quickstart

-DinteractiveMode=false

1. Integrate Maven with Eclipse from command prompt.

Go to inside the project path where pom.xml file is present.

Type: > mvn eclipse:eclipse

1. Verify the Maven plug-in is configured with eclipse

Widows🡪Preferences🡪Check the maven plugin is install with eclipse. If not, download it from the website “Eclipse Maven integration”.

1. Import a created maven project from the local system to eclipse.
2. Add required dependencies to POM.xml file (Eg: selenium, TestNG,..)

Copy & paste dependencies from <https://mvnrepository.com/>

1. Add maven-surefire-plugin to POM.xml file above the dependencies tag.

<build>

<pluginManagement>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.0.0-M3</version>

</plugin>

</plugins>

</pluginManagement>

</build>

1. Go to project folder till POM.xml file is present then run a following commands.

* mvn clean – Scan and clean the project
* mvn compile – Compile the project to check the project files have any compilation / syntax error.
* mvn test - Execute all tests files.

**Note**: End of file name should have word ‘Test’.

1. Integration of TestNG with maven

Add below tags into suirefire plugin:

<plugins>

[...]

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.0.0-M3</version>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

[...]

</plugins>

1. Running single test using maven command

mvn -Dtest=TestCircle test

1. Maven Profiling

<profiles>

<profile>

<id>Regression</id>

<build>

<pluginManagement>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>2.20.1</version>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng2.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

</plugins>

</pluginManagement>

</build>

</profile>

<profile>

<id>Smoke</id>

<build>

<pluginManagement>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>2.20.1</version>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

</plugins>

</pluginManagement>

</build>

</profile>

</profiles>