



Daniel Ivan Anaya Alvarez

Maven Activity

Maven is a Project manager that helps us with our Java projects, it creates a xml file in our directory named pom which is considered the heart of maven. Maven helped us to keep the needed libraries or structures that we need, depending on what we are working on.

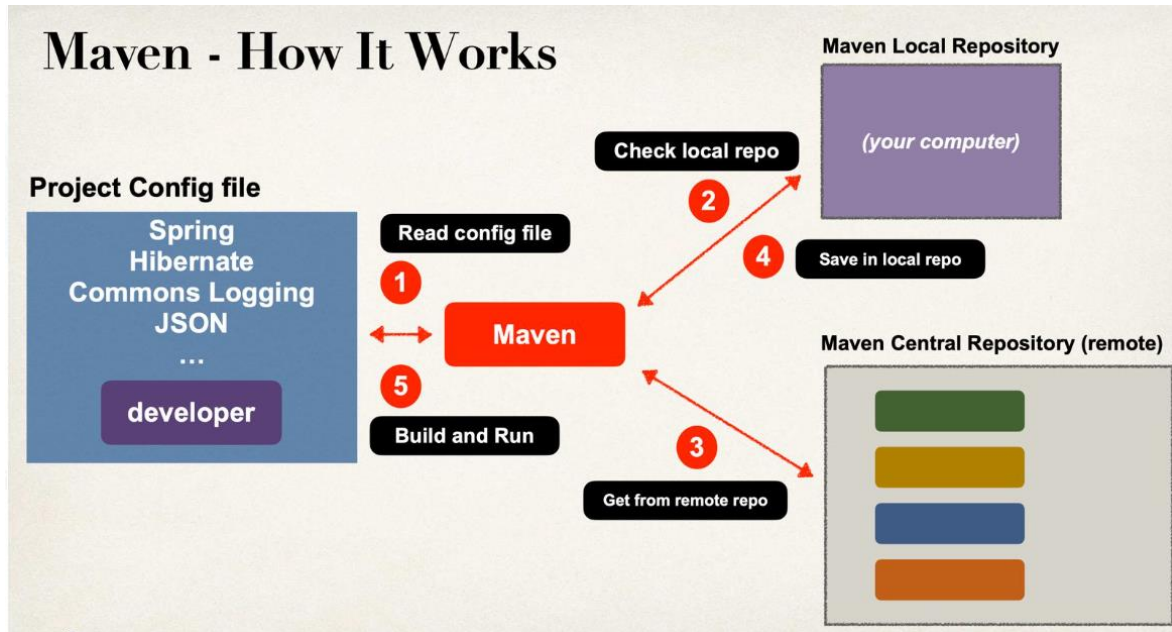


Illustration 1 Maven Flowdiagram

In this flowchart we can see how does maven is supposed to work:

1. The first thing it does its read the read config file to see the necessary requirementents the Project needs
2. After that it checks your local Project of your pc meet all the requirements it needs
3. If your computer doesn't have all the requirementes needed it goes back and get the repository from a cloud Maven central repository
4. After that it stores it all inside your local Project changing your pow file.
5. At the end you are ready to build and run the Project as you need

Lets see some basic commands that people usually works with in Maven

- `mvn clean`: Cleans the target directory where Maven places compiled and packaged files. This command removes all files generated from previous builds.
- `mvn compile`: Compiles the project's source code. It takes the Java source files and converts them into bytecode that can be executed by the JVM.
- `mvn test`: Runs the unit tests in the project. Maven looks for tests written with frameworks like JUnit and executes them.
- `mvn package`: Packages the project into a distributable format, such as a JAR or WAR file. This command compiles the code, runs the tests, and then packages the result.
- `mvn install`: Installs the packaged artifact into the local Maven repository. This allows other projects on the same machine to use it as a dependency.
- `mvn dependency:tree`: Displays a dependency tree of the project, which is useful for viewing all the project's dependencies, including transitive ones

Conclusion

At the end of this activity we can see that is important to work with Maven for projects, because that way you can work on different devices on that Project and it does all the tedious tasks for example getting some libraries, some framework etc... .