Maven

Maven - Apache Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.
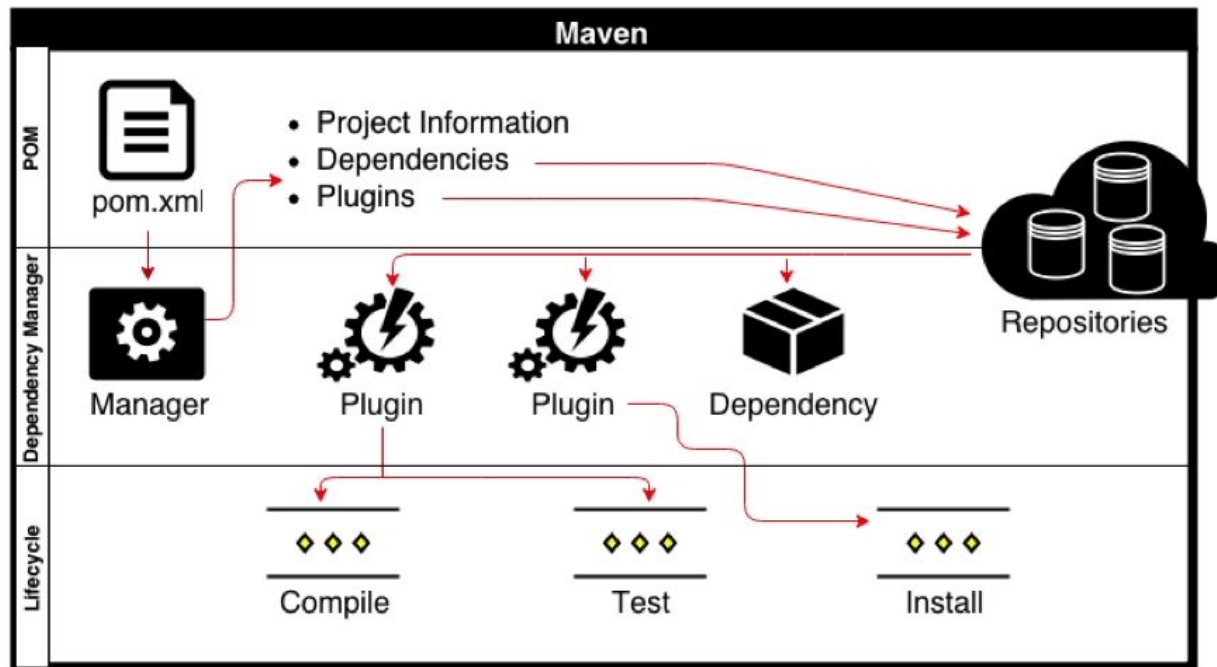
Why Maven?
Maven's primary goal is to allow a developer to comprehend the complete state of a development effort in the shortest period of time. In order to attain this goal there are several areas of concern that Maven attempts to deal with:

- Making the build process easy
- Providing a uniform build system
- Providing quality project information
- Providing guidelines for best practices development
- Allowing transparent migration to new features

What is Maven?

- Maven is a build tool, which helps developer in building their projects
- A build tool is a tool that automates everything related to building the software project
- Maven having centralized repository that contains all third party Jars
- mvn archetype: generate : This will download all templates of maven projects on your machine
- mvn eclipse:eclipse : This command is used to adding dependency's for eclipse projects .
- archetypeArtifactId = <plug in-name> : this command is used to load the plug-ins for those projects
- ArtifactId : It is the project name
- GroupId : It is for name of the package

Maven

Build Life cycle

The process for building and distributing a particular artifact(project) is clearly defined .

Validate :
validate the project is correct and all necessary information is avalible

Compile :
compile the source code of the project

Test :
test the compiled source code using a suitable unit testing framework

Package :
take the compiled code and package it in its distributable format ,such as Jars or War

Clean :
Clean the projects unnecessary files

Build Life cycle

Install :

install the package into local repository ,for uses a dependency in other projects locally

Deploy

Done in build environment ,copies the final package to the remote repository for sharing with other developers and projects .

POM(Project Object Model)

- It is the fundamental unit of work in maven. It is an XML file that contains information about the project and configuration details
- It is used by Maven to build the project
- All the dependences and support plugins are defined in POM file
- All dependences resolved during the compilation ,which mentioned in POM file