**What is Maven**?

Maven is a build automation tool used primarily for Java projects. Maven addresses two aspects of building software:

first, it describes how software is built and second it describes its dependencies.

Maven dynamically downloads Java libraries and Maven plug-ins from one or more repositories such as the Maven 2 Central Repository, and stores them in a local cache.

**Maven’s Objectives**

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

**Maven Lifecycle**

There are three built-in build lifecycles: default, clean and site.

The default lifecycle handles your project deployment,

the clean lifecycle handles project cleaning,

while the site lifecycle handles the creation of your project's site documentation.

**A Build Lifecycle is Made Up of Phases**

* validate - validate the project is correct and all necessary information is available
* compile - compile the source code of the project
* test - test the compiled source code using a suitable unit testing framework. These tests should not require the code be packaged or deployed
* package - take the compiled code and package it in its distributable format, such as a JAR.
* verify - run any checks on results of integration tests to ensure quality criteria are met
* install - install the package into the local repository, for use as a dependency in other projects locally
* deploy - done in the build environment, copies the final package to the remote repository for sharing with other developers and projects.

### What is a POM?

A Project Object Model or POM is the fundamental unit of work in Maven. It is an XML file that contains information about the project and configuration details used by Maven to build the project. It contains default values for most projects. Examples for this is the build directory, which is target; the source directory, which is src/main/java; the test source directory, which is src/test/java; and so on. When executing a task or goal, Maven looks for the POM in the current directory. It reads the POM, gets the needed configuration information, then executes the goal.