1. What is Maven?

Maven is a project management and comprehension tool. It is based on POM (Project Object Model).Maven provides developers a complete build lifecycle framework. Development team can automate the project's build infrastructure in almost no time as Maven uses a standard directory layout and a default build lifecycle.

1. What aspects are managed by Maven?

* Builds
* Documentation
* Reporting
* SCMs
* Releases
* Distribution

1. What does it mean when you say Maven uses Convention over Configuration?

Maven uses Convention over Configuration which means developers are not required to create build process themselves. Developers do not have to mention each and every configuration details.

1. Explain what is Maven Repository? What are their types?

A Maven repository is a location where all the project jars, library jars, plugins or any other particular project related artifacts are stored and can be easily used by Maven.

1. What is POM?

In Maven, POM (Project Object Model) is the fundamental unit of work. It is an XML file which holds the information about the project and configuration details used to build a project by Maven.

1. What information does POM contain?

* project dependencies
* plugins
* goals
* build profiles
* project version
* developers
* mailing list

1. What is Maven Build Lifecycle?

A Build Lifecycle is a well defined sequence of phases which define the order in which the goals are to be executed. Here phase represents a stage in life cycle.

1. Name the 3 build lifecycle of Maven.

The three build lifecycles are −

* **clean:** cleans up artifacts created by prior builds.
* **default (or build):**This is used to build the application.
* **site:** generates site documentation for the

1. What are the phases of a Maven Build Lifecycle?

Following are the 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.
* **integration-test −** process and deploy the package if necessary into an environment where integration tests can be run.
* **verify −** run any checks to verify the package is valid and meets quality criteria.
* **install −** install the package into the local repository, for use as a dependency in other projects locally.
* **deploy −** done in an integration or release environment, copies the final package to the remote repository for sharing with other developers and projects.

1. What is a Maven Repository?

A repository is a place i.e. directory where all the project jars, library jar, plugins or any other project specific artifacts are stored and can be used by Maven easily.

1. When does Maven use External Dependency concept?

Maven dependency management using concept of Maven Repositories (Local, Central, Remote). Suppose dependency is not available in any of remote repositories and central repository; in such scenarios Maven uses concept of External Dependency.

1. What are the things you need to define for each external dependency?

External dependencies (library jar location) can be configured in pom.xml in same way as other dependencies.

* Specify groupId same as name of the library.
* Specify artifactId same as name of the library.
* Specify scope as system.
* Specify system path relative to project location.

13.Why Maven Plugins are used?

Maven plugins are used to  
• Create a jar file  
• Create war file  
• Compile code files  
• Unit testing of code  
• Documenting projects  
• Reporting

14. Mention the difference between Apache Ant and Maven?

Apache Ant Maven  
• Ant is a toolbox – Maven is a framework  
• Ant does not have formal conventions like project directory structure – Maven has conventions  
• Ant is procedural; you have to tell to compile, copy and compress – Maven is declarative ( information on what to make & how to build)  
• Ant does not have lifecycle; you have to add sequence of tasks manually – Maven has a lifecycle  
• Ant scripts are not reusable – Maven plugins are reusable

15. **List out the build, source and test source directory for POM in Maven?**

* Build = Target
* Source = src/main/java
* Test = src/main/test