MAVEN INTERVIEW QUESTIONS

What is Maven?

It is a project management tool which is based on the Project Object Model (POM). It helps developers with the complete build lifecycle. Developer teams can automate a certain project's build infrastructure

Maven uses 'convention over configuration'. What does it mean?

It means that software developers do not need to create the build process from scratch by themselves. So developers do not have to know every single configuration-related details.

What is the POM file?

It means Project Object Model. Basically it is an XML file located in the base directory of the project. It contains all the information needed by Maven in order to build the project.

What is a Maven artifact?

Basically everything that can be deployed to a Maven repository. Usually artifacts are JAR files. Each artifact has a groupdId + an artifactId + a version number. These parametes uniquely identify every single artifact (so no two artifacts exist with the same parameters)

What are the Maven build lifecycles?

A Maven lifecycle is just a sequence of phases which define the order in which the goals are to be executed.

Enumerate the Maven lifecycles!

Clean lifecycle , build lifecycle and site lifecycle

Clean lifecycle cleans up artifacts that has been created by other builds (removes the target folder)

Build lifecyle builds the application itself

Site lifecycle generated site documentation for the project

What are build profiles?

Basically a build profile is just a set of configurations (what sever to use, what database to use) which can be used to override the default values of Maven build. For example we want to use different database for developement as for production.

What is a Maven repository?

A repository is a location or directory where all the project jars, libraries and plugins are stored. These artifacts can be used by Maven. There are 3 types of Maven repo: local (on our machine), central (on a predefined website), remote (we can define the location of our server for example)

What is the Maven reactor?

When we have several modules and one module depend on another module or modules then the order of the build can not be random because of the dependencies (A depends on B, B must be built before A). Maven reactor helps to come up with the order (with topological sort) in which the modules has to be compiled and built.

What is a SNAPSHOT?

SNAPSHOT is a special version that indicates a current developement copy. SNAPSHOT versions might get updates, so 1.0-SNAPSHOT might give a different file today than downloading it yesterday. Usually snapshot dependecies should only exist during developement. Unlike regular versions, Maven checks for a new SNAPSHOT version in the remote repository for every build.

What is the difference between SNAPSHOT and version?

In case of a version, if Maven downloaded the given version 1.0 (without the SNAPSHOT !!!) it will never try to download a newer 1.0 available in the repository. If it is 1.0-SNAPSHOT it may be downloaded because Maven knows SNAPSHOT versions may change.

Mention some other project management frameworks!

Apache Ant or Gradle