What is Maven?

It is project management tool that is based on POM (Project Object Model). It is used for project build, dependency and documentation.

It is simplifying the build process like ANT.

**Without Maven**

1. Adding JARs in each Project
2. Creating Right Project Structure
3. Building & Deploying Project

**With Maven**

* Build
* Documentation
* Reporting
* SCMs
* Releases
* Distribution

**ANT VS MAVEN**

* ANT doesn’t have formal convention and we need to provide information of the project structure to build.xml
* Where Maven has formal convention to place source code , compiled code etc.
* ANT is mainly build tool where as Maven is Project Management Tool
* ANT Script is not reusable where Maven is

**MAVEN INSTALLATION**

<https://maven.apache.org/download.cgi>

MAVEN\_HOME = c:\maven\apache-maven3.9

Set the path

PATH = %MAVEN\_HOME%\bin

mvn -version

**MAVEN REPOSITORY :** Maven Search for the dependencies is as per below order.

1. Local Repository : %user\_home%/.m2/repository
2. Central Repository
   1. <https://repo1.maven.org/maven2/>
3. Remote Repository

**Spring Framework**

There are two ways---

1. ANT
   1. Create Java Projects
   2. Download Spring 5 Framework [ More than one JARs ]
   3. Attach them to your application build – class path.
2. Maven
   1. Create Maven Project
   2. Add Dependencies for Spring

**Scope Of Bean**

The Spring Framework supports the following five scopes, three of which are available only if you use a web-aware ApplicationContext.

|  |  |
| --- | --- |
| **Sr.No.** | **Scope & Description** |
| 1 | **singleton**  This scopes the bean definition to a single instance per Spring IoC container (default). |
| 2 | **prototype**  This scopes a single bean definition to have any number of object instances. |
| 3 | **request**  This scopes a bean definition to an HTTP request. Only valid in the context of a web-aware Spring ApplicationContext. |
| 4 | **session**  This scopes a bean definition to an HTTP session. Only valid in the context of a web-aware Spring ApplicationContext. |
| 5 | **global-session**  This scopes a bean definition to a global HTTP session. Only valid in the context of a web-aware Spring ApplicationContext |