Maven installation details :

**\*** Configuring eclipse plugin for maven :

1. Open eclipse - go to help->install new software ->

2. Add the following link with a custom name like maven plugin:

<http://download.eclipse.org/technology/m2e/releases>

3. Just keep clicking default options and restart eclipse and plugin is configured.

**\*** Maven setup on the system.

sudo apt-get update  
sudo apt-get install maven

Make sure to remove maven 2 if you ubuntu is not fresh or if you were using maven 2 before:

sudo apt-get remove maven2

alternate:

apt-get install maven3

**Q.** How to make a maven project ?

Assuming the user has maven plugin installed in the eclipse , go to new and in the dialogue box , type maven which will give an option of maven project , click on the maven project and then give the group , artifact and version for the project . Click finish.

**Q.** Why do we need maven ?

Maven is a build tool which is far more user friendly than the competitive build tools like ant.It gives xml based access to third party jar specifications in it’s pom.xml in absence of which we have to maintain the heavy jars and take care of it’s storage. In maven all these jars can be mentioned in a pom.xml file and it makes maintenance easy.

**Q.** What is the repository hierarchy for Maven?

It has three layers of repository. One is the local repository which is inside .m2/repo folder inside the machine of the end maven user. Other level is the organisation level repository/archiva which is maintained by the company. The topmost level is the maven archiva/repository.

**Q.** What is the advantage of organisation wide repository of maven ?

There can be many teams using maven inside an organisation . Any team that would have referred to a particular jar will be downloaded to his/her local repo on his/her system and additionally a copy of it will also be maintained in the organisation archiva. So the next time a maven user of another team of the same organisation wants to use the same jar , the user need not hit the central maven repo using internet , rather he can get it from the org repo using intranet only.

**Q.** How a jar is referred inside pom.xml ?

Inside pom.xml for the project , dependency tag has to be made inside dependencies tag.Inside that Group , artifact id and version uniquely determine a jar file.

example :

</dependency>

<dependency>

<groupId>org.springframework.ldap</groupId>

<artifactId>spring-ldap-core</artifactId>

<version>1.3.2.RELEASE</version>

</dependency>

</dependencies>

**Q.** How do we make a maven module ?

When we create new -> maven module then it asks for a parent maven project where we have to point it to an exising maven project . Important note here is the packaging of the parent maven project should be “pom” ( not a jar packaging ).

**Q.** What will be relationship between maven module and it’s parent maven project ?

The jars mentioned in the maven parent project will automatically also appear as maven dependencies in the child maven module . The jar mentioned in the child maven module will not appear as a maven dependency in the parent maven project on the other hand.

**Q.** What are maven common targets ?

clean , build , install.

**Q.** What all happens when we clean parent maven project ?

It cleans the maven project and also recursively cleans the children maven module.It’s done by right clicking the project and the doing maven clean.

**Q.** What happens when we install parent maven project ?

It populates the targets of the children maven modules of the maven project with jar/war files. Creates .pom in the target directory of the parent project.It’s done by right clicking parent project and then doing maven install.

Example maven log :

[INFO] ------------------------------------------------------------------------

[INFO] Reactor Summary:

[INFO]

[INFO] MavenTest ......................................... SUCCESS [0.493s]

[INFO] MavenModule ....................................... SUCCESS [1.207s]

[INFO] MavenModuleTwo .................................... SUCCESS [0.610s]

[INFO] MavenModuleThree .................................. SUCCESS [0.231s]

[INFO] ------------------------------------------------------------------------

[INFO] BUILD SUCCESS

[INFO] ------------------------------------------------------------------------

[INFO] Total time: 2.745s

[INFO] Finished at: Thu Nov 07 23:38:14 IST 2013

[INFO] Final Memory: 8M/106M

[INFO] ------------------------------------------------------------------------

**Q.** Can we do clean/install for a maven module ?

Yes.

**Q.** Can we make a maven parent project without children/modules ?

Yes , but the packaging is suggested to be made as jar in this case.

**Q.** How to configure organisation repository on maven user machine ?

The settings.xml file of maven ( generally under /etc/maven ) should be configured as following :

<repository>

<id>internal</id>

<name>Archiva Managed Internal Repository</name> <url><http://localhost:8080/archiva/repository/internal/></url>

<releases>

<enabled>true</enabled>

</releases>

<snapshots>

<enabled>false</enabled>

</snapshots>

</repository>