

# MAVEN

Revision History			
Version	Date	Auteur	Description
001	30/11/16	Gregory Amirthanathan	First version Convert a project to Maven Project
002	02/12/16	Gregory Amirthanathan	Second version Maven Installation Create a Maven Project using Eclipse IDE
003			

## 1. Maven Installation

Navigate to Maven official site and download stable version of Maven.

Maven Download- <https://maven.apache.org/download.cgi>

The screenshot shows the Maven Apache website with a sidebar on the left containing navigation links like 'Documentation', 'Community', 'Project Documentation', 'Maven Projects', and 'ASF'. The main content area displays 'Maven 3.3.1' as the current stable version. A table lists download links and checksums for various formats (Binary tar.gz, Binary zip, Source tar.gz, Source zip). A thought bubble labeled 'Download Maven' points to the 'Binary zip' link, which is highlighted with a red box. Below this, the 'Maven 3.2.5' section is visible, followed by the 'Maven 3.1.1' section. At the bottom, a download progress bar shows 'apache-maven-3.3.1-bin.zip' with a status of '0.5/7.8 MB, 3 mins left'. A red arrow points to the progress bar with the text 'Download started'.

Other mirrors: <http://mirror.cc.columbia.edu/pub/software/apache/> Change

You may also consult the complete list of mirrors.

**Maven 3.3.1**

This is the current stable version of Maven.

	Link	Checksum
Maven 3.3.1 (Binary tar.gz)	<a href="#">apache-maven-3.3.1-bin.tar.gz</a>	<a href="#">apache-maven-3.3.1-bin.tar.gz.md5</a>
<b>Maven 3.3.1 (Binary zip)</b>	<b><a href="#">apache-maven-3.3.1-bin.zip</a></b>	<a href="#">apache-maven-3.3.1-bin.zip.md5</a>
Maven 3.3.1 (Source tar.gz)	<a href="#">apache-maven-3.3.1-src.tar.gz</a>	<a href="#">apache-maven-3.3.1-src.tar.gz.md5</a>
Maven 3.3.1 (Source zip)	<a href="#">apache-maven-3.3.1-src.zip</a>	<a href="#">apache-maven-3.3.1-src.zip.md5</a>
Release Notes	3.3.1	
Release Reference Documentation	3.3.1	

You can also download the current documentation, i.e. this website.

**Maven 3.2.5**

This is a stable version 3.2.x of Maven with Java 6 requirement, for projects that can't upgrade to Maven 3.3 yet.

Notice that **Maven Toolchains** provide a way for a project to be built using a specific version of JDK independent from the one Maven is running.

	Link	Checksum
Maven 3.2.5 (Binary tar.gz)	<a href="#">apache-maven-3.2.5-bin.tar.gz</a>	<a href="#">apache-maven-3.2.5-bin.tar.gz.md5</a>
Maven 3.2.5 (Binary zip)	<a href="#">apache-maven-3.2.5-bin.zip</a>	<a href="#">apache-maven-3.2.5-bin.zip.md5</a>
Maven 3.2.5 (Source tar.gz)	<a href="#">apache-maven-3.2.5-src.tar.gz</a>	<a href="#">apache-maven-3.2.5-src.tar.gz.md5</a>
Maven 3.2.5 (Source zip)	<a href="#">apache-maven-3.2.5-src.zip</a>	<a href="#">apache-maven-3.2.5-src.zip.md5</a>
Release Notes	3.2.5	
Release Reference Documentation	3.2.5	

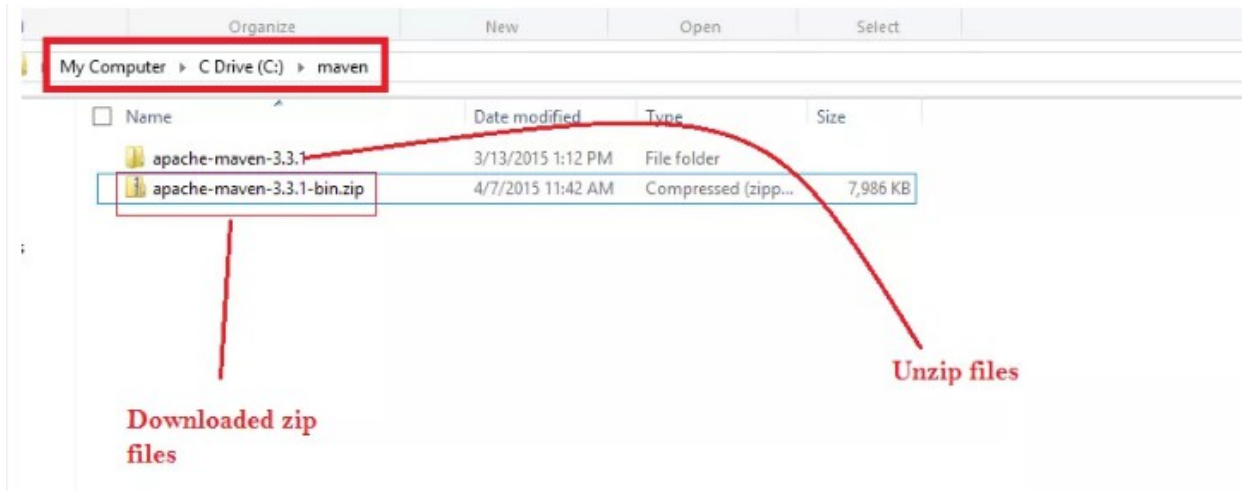
**Maven 3.1.1**

How Apache Works

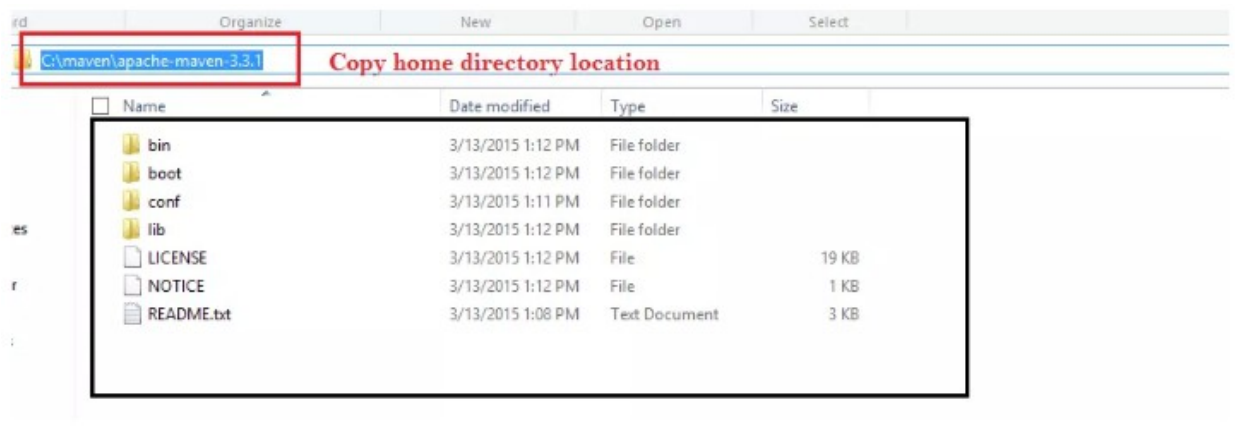
apache-maven-3.3.1-bin.zip  
0.5/7.8 MB, 3 mins left

# MAVEN

Unzip the download file and Check unzip folder – in our case folder name- apache-maven-3.3.1

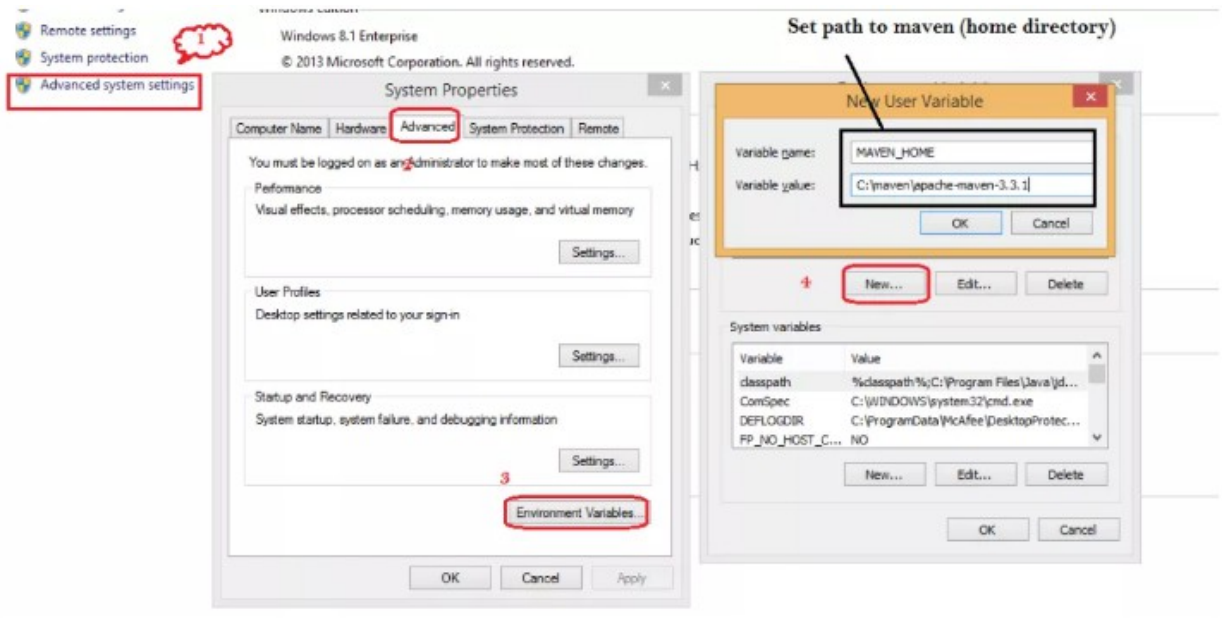


This is maven home directory and now we have to set path for the same



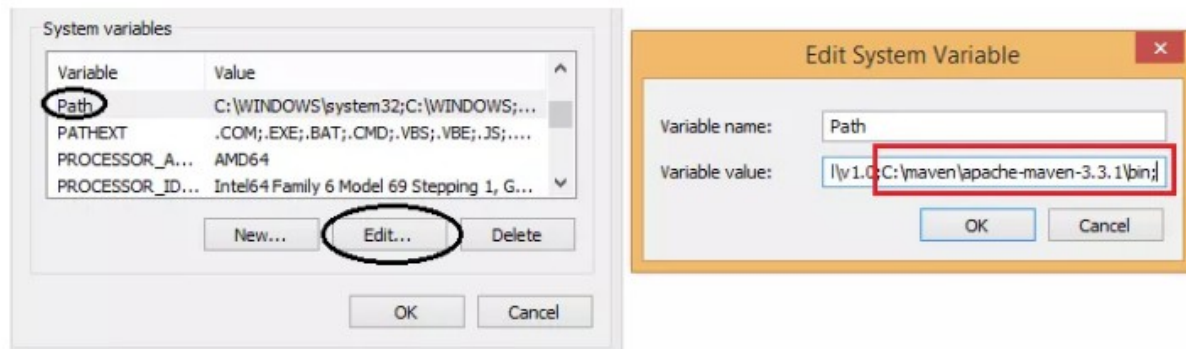
To set path variable- Right Click on my computer and Select property.

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Now we need to set path variable also for System variable.

Note- Please do not touch other variable, Go to last point use ; and then enter path till bin folder.

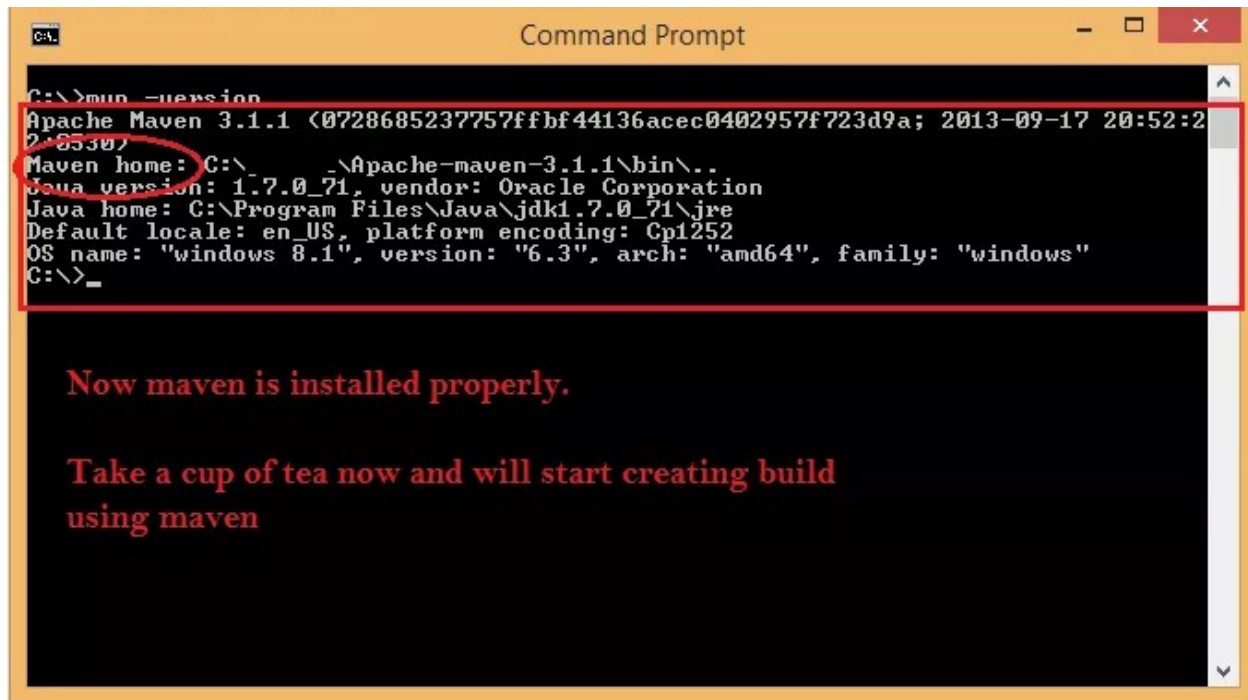


Click on save and apply. You can verify now that Maven is installed or not.

Open command prompt and type mvn - version

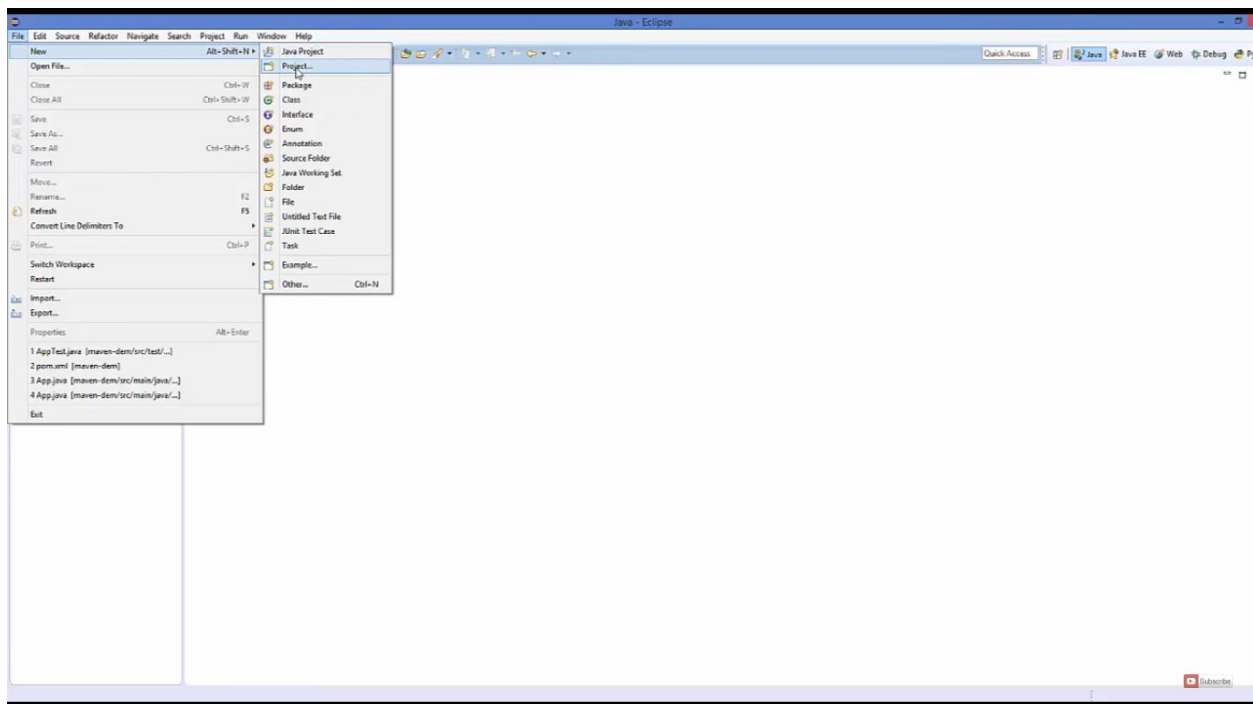
If Maven is installed properly then you will get Maven version and Java version on Console.

# MAVEN



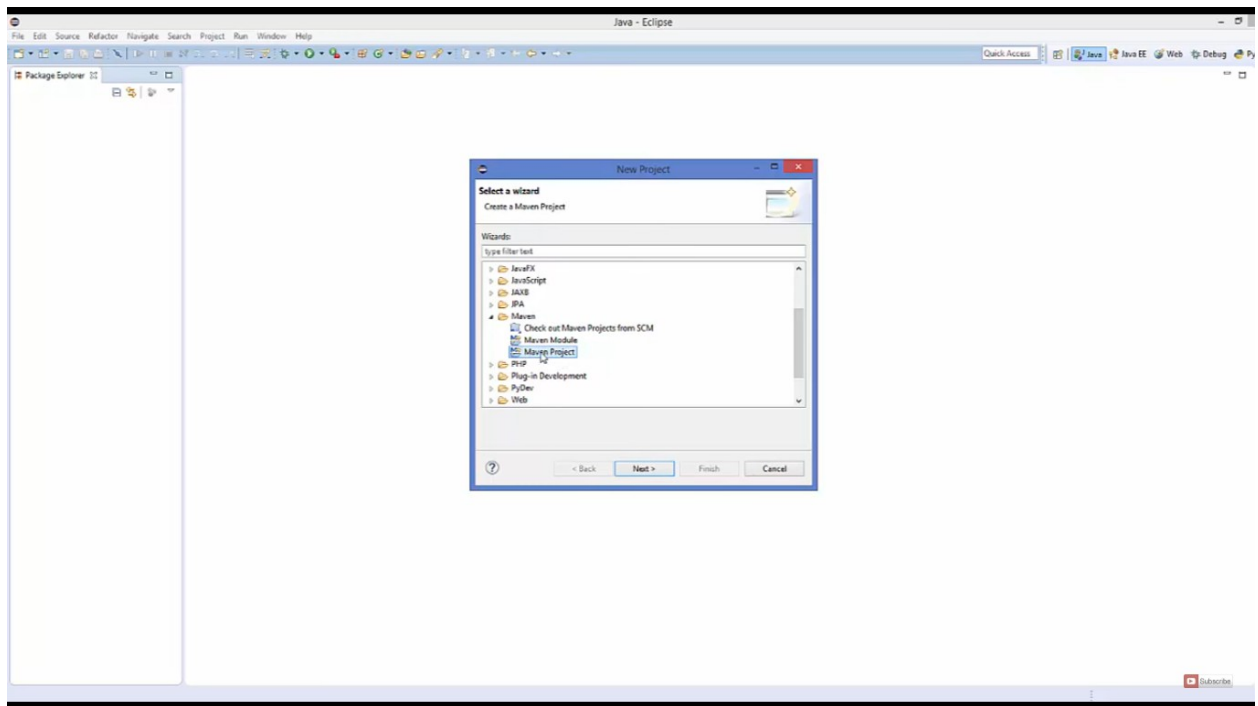
## 2. Create a Maven Project using Eclipse IDE

Go to File → New → Project

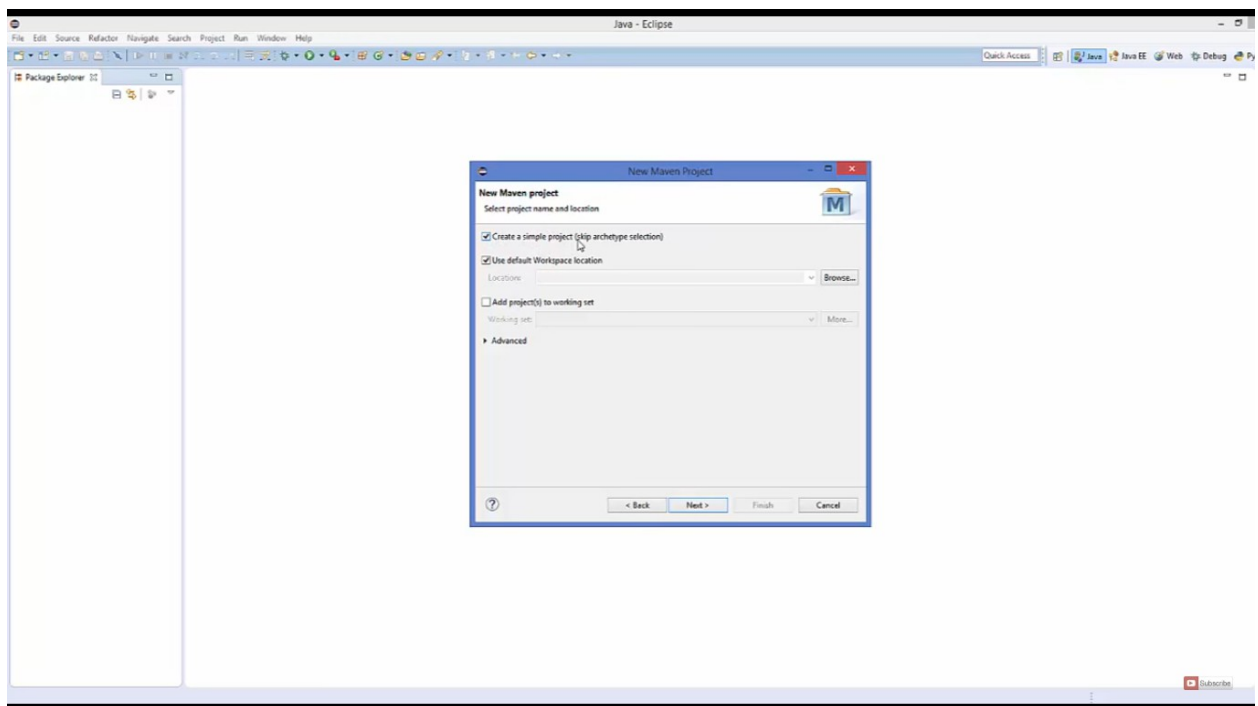


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## Select Maven Project

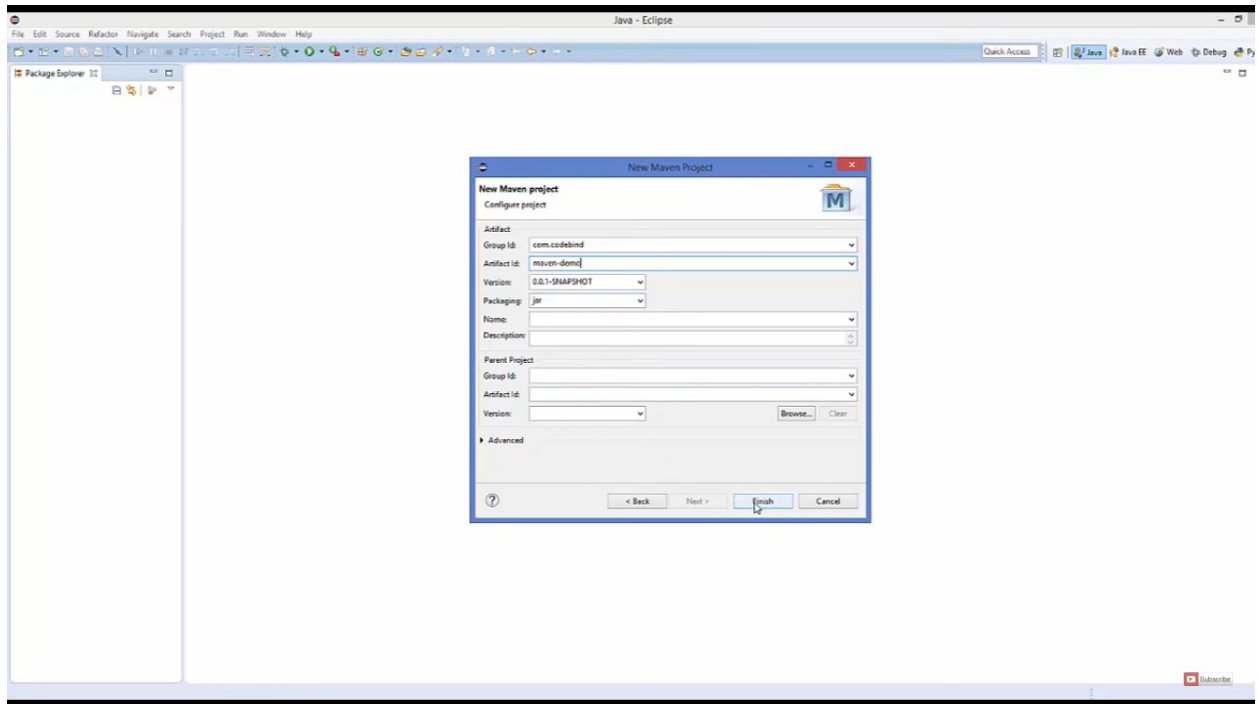


## Tick the Create a simple .... checkbox



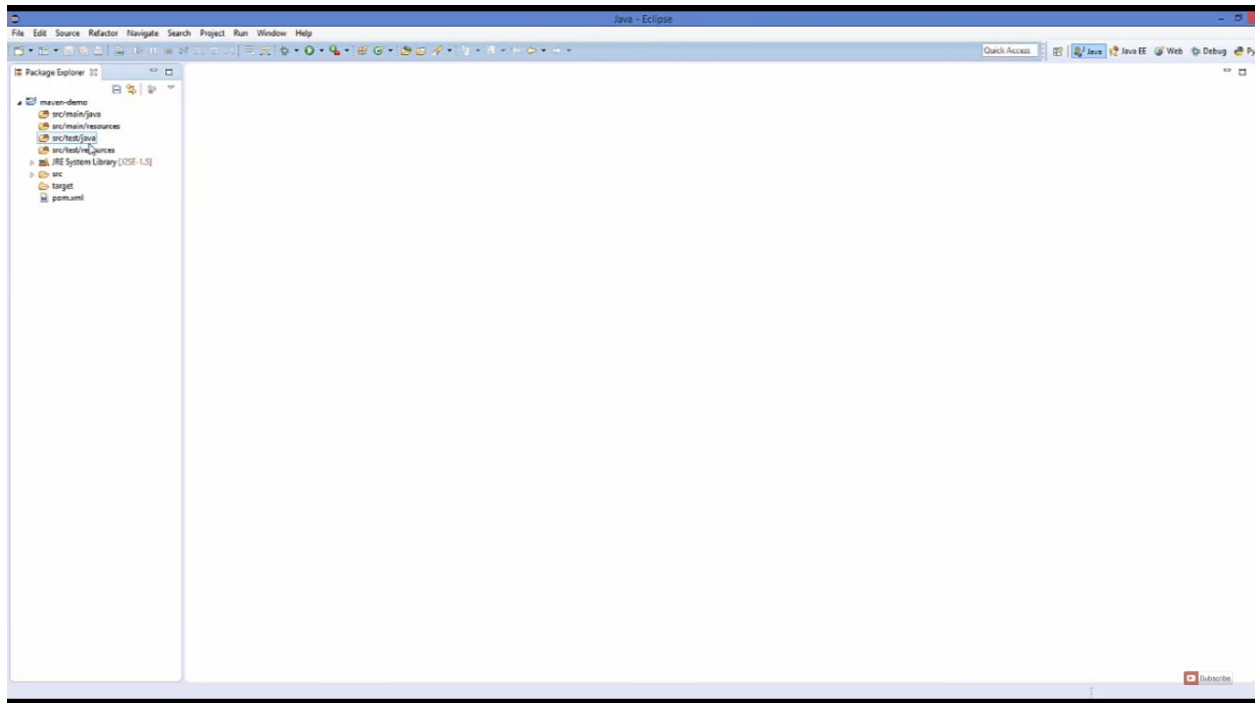
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Enter Group Id , Artifact Id and click Finish

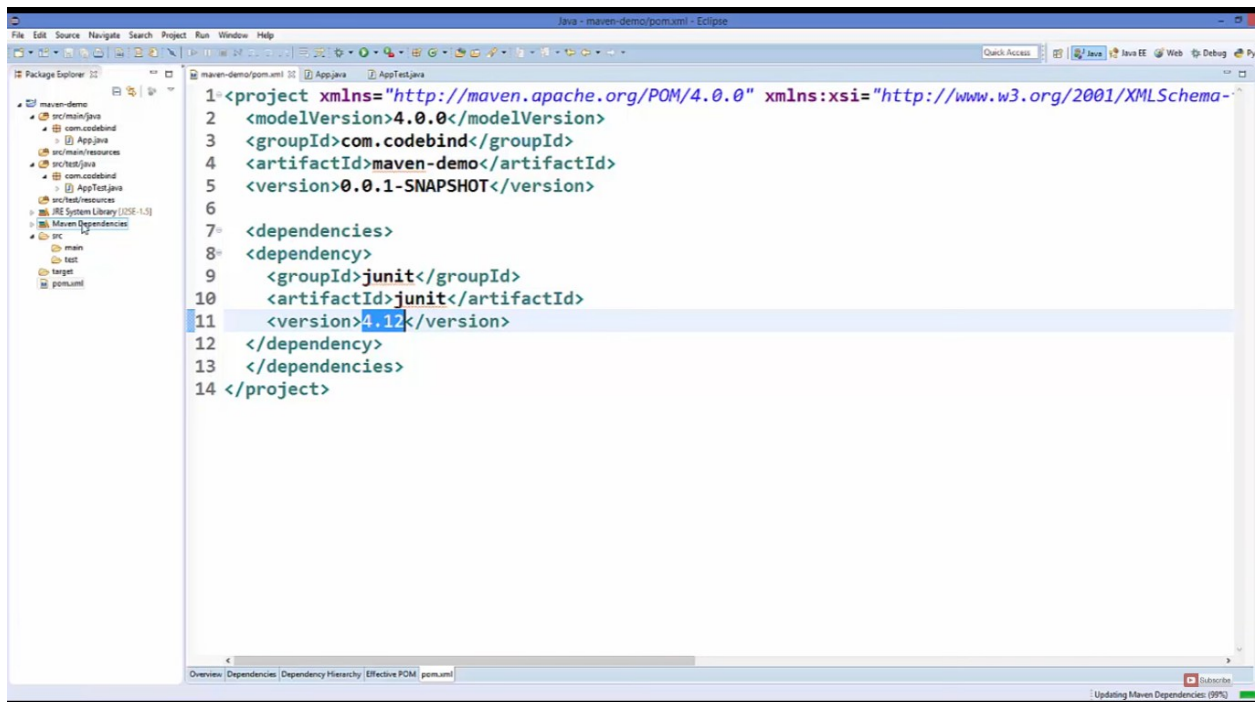


You can see Maven project created

# MAVEN



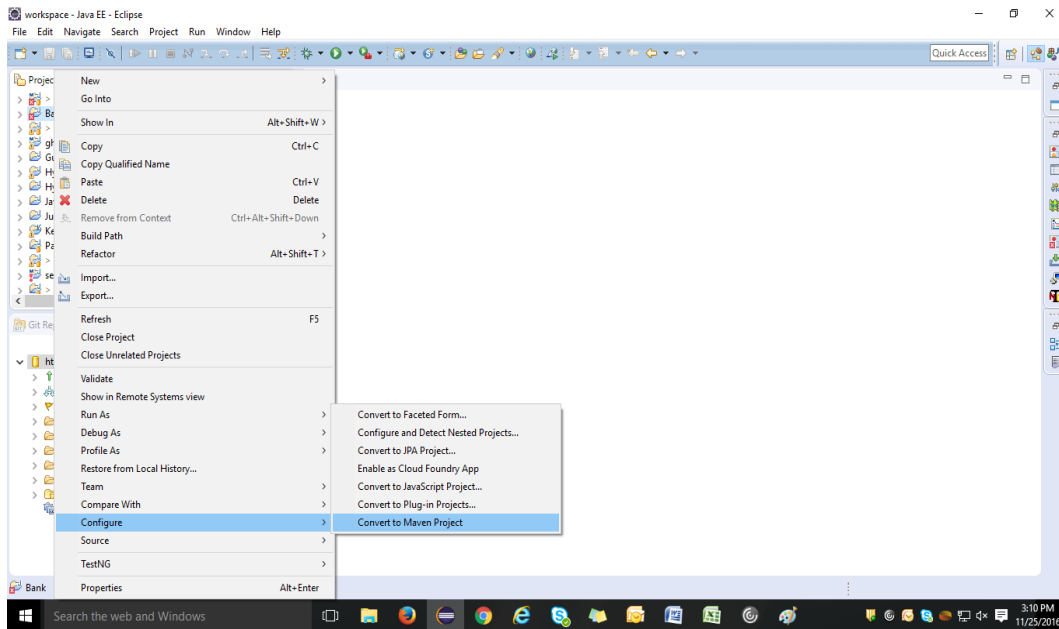
Adding dependency to pom.xml



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## 3. Convert any project to Maven project

Right click on project → Configure → Convert to Maven Project



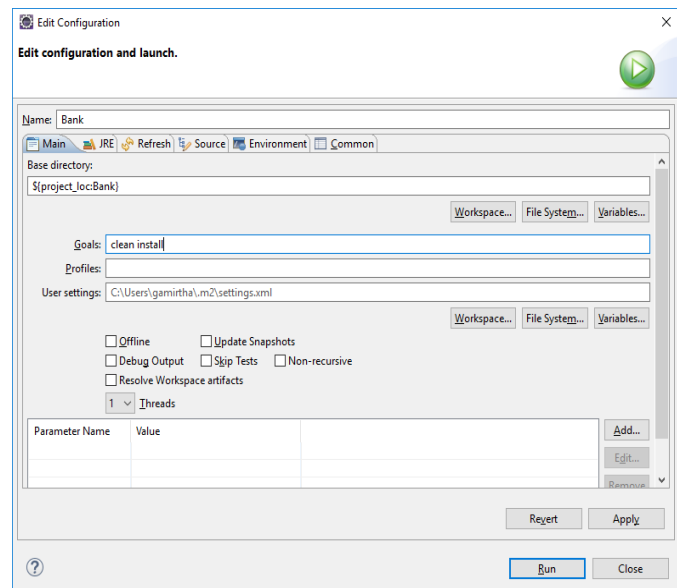
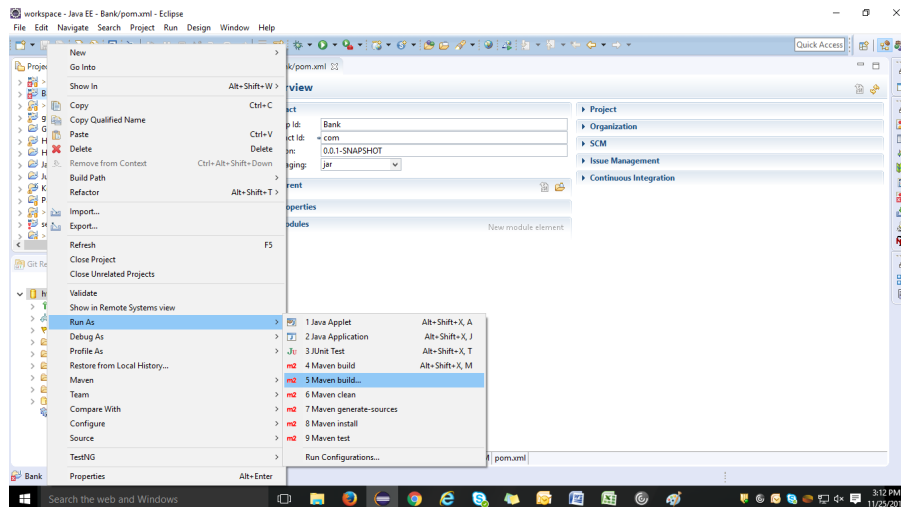
Fill Group Id and Artifact Id

A screenshot of the 'Create new POM' dialog box in Eclipse. The dialog has a title bar that says 'Create new POM'. Below the title bar, it says 'Maven POM' and 'This wizard creates a new POM (pom.xml) descriptor for Maven.' The 'Project' field is set to '/Bank'. Under the 'Artifact' section, there are several fields: 'Group Id' is set to 'Bank', 'Artifact Id' is set to 'com', 'Version' is set to '0.0.1-SNAPSHOT', 'Packaging' is set to 'jar', 'Name' is empty, and 'Description' is empty. At the bottom of the dialog, there are two buttons: 'Finish' and 'Cancel'. A help icon (?) is also present at the bottom left.

Right click on project → Run As → Maven build (2nd option)



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Write 'clean install' in Goals field.

Build Success message should be displayed and note 'M' sign will appear on the project icon

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<terminated> JavaLearn [Maven Build] C:\Program Files\Java\jdk1.8.0_91\bin\java.exe (Nov 30, 2016, 12:10:15 PM)
[INFO] --- maven-jar-plugin:2.4:jar (default-jar) @ com ---
[WARNING] JAR will be empty - no content was marked for inclusion!
[INFO] Building jar: C:\Users\gamirtha\workspace\JavaLearn\target\com-0.0.1-SNAPSHOT.jar
[INFO]
[INFO] --- maven-install-plugin:2.4:install (default-install) @ com ---
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.pom (3 KB at 3.0 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/3.1/plexus-3.1.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/3.1/plexus-3.1.pom (19 KB at 22.0 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-digest/1.0/plexus-digest-1.0.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-digest/1.0/plexus-digest-1.0.pom (2 KB at 1.5 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-components/1.1.7/plexus-components-1.1.7.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-components/1.1.7/plexus-components-1.1.7.pom (5 KB at 7.2 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/1.0.8/plexus-1.0.8.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus/1.0.8/plexus-1.0.8.pom (8 KB at 10.3 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-container-default/1.0-alpha-8/plexus-container-default-1.0-alpha-8.pom
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-container-default/1.0-alpha-8/plexus-container-default-1.0-alpha-8.pom (2 KB at 1.5 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.jar
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.jar (226 KB at 218.3 KB/sec)
[INFO] Downloading: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-digest/1.0/plexus-digest-1.0.jar
[INFO] Downloaded: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-digest/1.0/plexus-digest-1.0.jar (12 KB at 16.6 KB/sec)
[INFO] Installing C:\Users\gamirtha\workspace\JavaLearn\target\com-0.0.1-SNAPSHOT.jar to C:\Users\gamirtha\workspace\JavaLearn\repository\com-0.0.1-SNAPSHOT.jar
[INFO] Installing C:\Users\gamirtha\workspace\JavaLearn\pom.xml to C:\Users\gamirtha\workspace\JavaLearn\repository\com-0.0.1-SNAPSHOT.pom
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 37.271 s
[INFO] Finished at: 2016-11-30T12:10:53+05:30
[INFO] Final Memory: 9M/22M
[INFO]

```

If Build fails, follow below steps...

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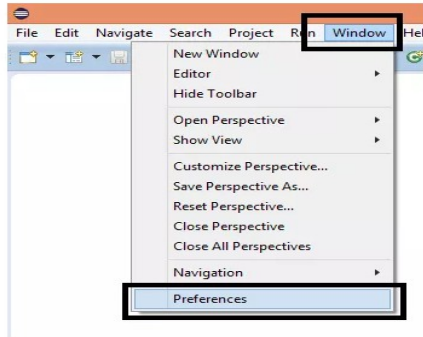
<terminated> Allieva [Maven Build] C:\Program Files\Java\jdk1.8.0_91\bin\java.exe (Nov 25, 2016, 3:06:24 PM)
[INFO] --- maven-clean-plugin:2.5:clean (default-clean) @ com ---
[INFO] Deleting C:\Users\gamirtha\workspace\AllJava\target
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ com ---
[WARNING] Using platform encoding (Cp1252 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory C:\Users\gamirtha\workspace\AllJava\src\main\resources
[INFO]
[INFO] --- maven-compiler-plugin:3.5.1:compile (default-compile) @ com ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding Cp1252, i.e. build is platform dependent!
[INFO] Compiling 7 source files to C:\Users\gamirtha\workspace\AllJava\target\classes
[INFO]
[ERROR] COMPILATION ERROR :
[INFO]
[ERROR] No compiler is provided in this environment. Perhaps you are running on a JRE rather than a JDK?
[INFO] 1 error
[INFO]
[INFO] BUILD FAILURE
[INFO]
[INFO] Total time: 4.821 s
[INFO] Finished at: 2016-11-25T15:06:30+05:30
[INFO] Final Memory: 18M/95M
[INFO]
[ERROR] Failed to execute goal org.apache.maven.plugins:maven-compiler-plugin:3.5.1:compile (default-compile) on project com: Compilation failure
[ERROR] No compiler is provided in this environment. Perhaps you are running on a JRE rather than a JDK?
[ERROR] -> [help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]

```

Solution for No compiler is provided in this environment in Maven

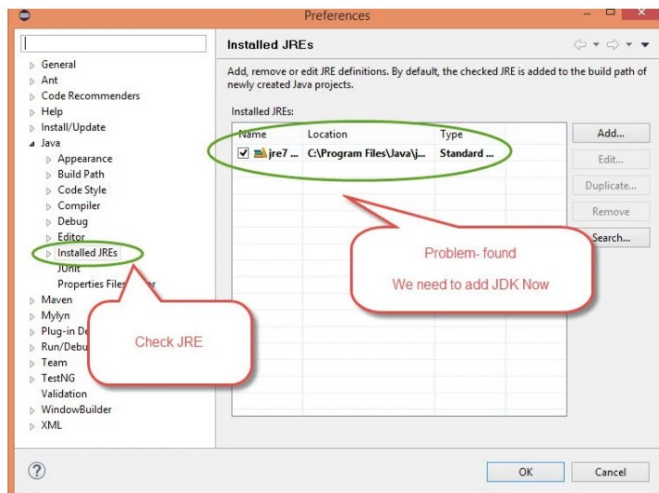
Click on Windows > Click on preferences

# MAVEN



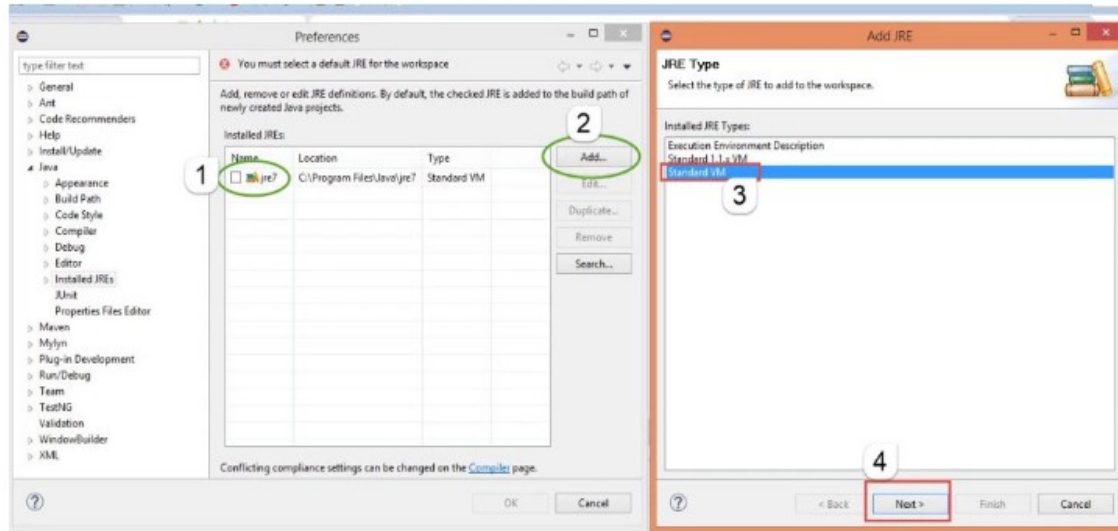
Click on Java > Installed JRE's

Here you will get JRE now we need to change it to JDK.

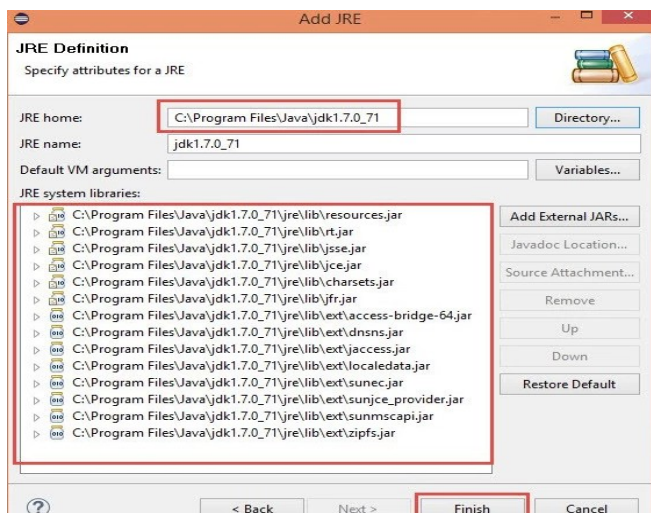


Now we need to add JDK > Click on Add > Select Standard VM

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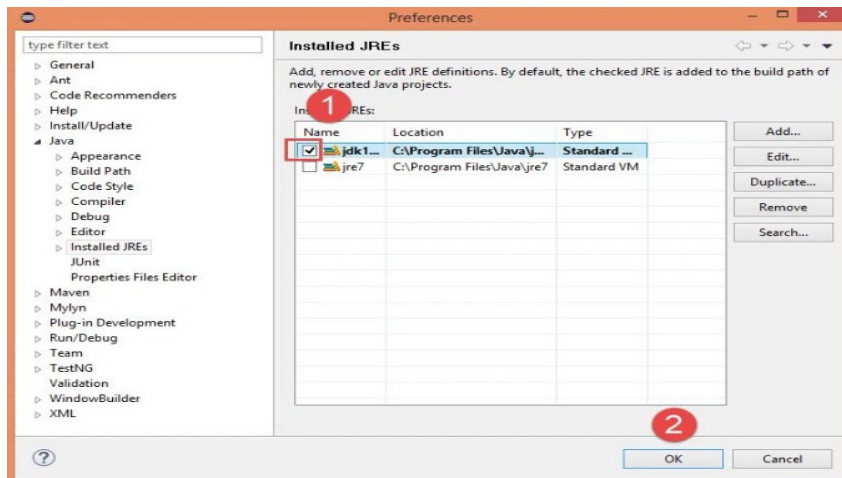


Browser JDK where it is located. Generally, you will get JAVA in below location.



Now once JDK set you are done.

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Now you can run pom.xml file from Eclipse or through CMD and Run pom.xml file > Maven clean then Maven Install and Finally Maven build.

OR

Restart eclipse and perform step 3 & 4