

JAVA & MAVEN **INSTALLATION IN** **ECLIPSE/STS**

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Java Installation:

- 1) In most of our systems JDK should be already installed. To check whether JDK is installed or not.
- 2) Go to “C:\Program Files\Java”. If you see jdk1.8*** then it is already installed in your system.
- 3) If you see any other jdk versions then better to install jdk1.8 by following below instructions.
- 4) Open <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
- 5)

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| Product / File Description | File Size | Download |
|-------------------------------------|-----------|---|
| Linux ARM 32 Hard Float ABI | 77.92 MB | jdk-8u161-linux-arm32-vfp-hflt.tar.gz |
| Linux ARM 64 Hard Float ABI | 74.88 MB | jdk-8u161-linux-arm64-vfp-hflt.tar.gz |
| Linux x86 | 168.96 MB | jdk-8u161-linux-i586.rpm |
| Linux x86 | 183.76 MB | jdk-8u161-linux-i586.tar.gz |
| Linux x64 | 166.09 MB | jdk-8u161-linux-x64.rpm |
| Linux x64 | 180.97 MB | jdk-8u161-linux-x64.tar.gz |
| macOS | 247.12 MB | jdk-8u161-macosx-x64.dmg |
| Solaris SPARC 64-bit (SVR4 package) | 139.99 MB | jdk-8u161-solaris-sparcv9.tar.Z |
| Solaris SPARC 64-bit | 99.29 MB | jdk-8u161-solaris-sparcv9.tar.gz |
| Solaris x64 | 140.57 MB | jdk-8u161-solaris-x64.tar.Z |
| Solaris x64 | 97.02 MB | jdk-8u161-solaris-x64.tar.gz |
| Windows x86 | 198.54 MB | jdk-8u161-windows-i586.exe |
| Windows x64 | 206.51 MB | jdk-8u161-windows-x64.exe |

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- 6) Click on “Accept License Agreement” and then select the exe links to download. If your system is 32-bit then select x86, if your system is 64-bit then select x64 link.
- 7) After selecting the appropriate link the exe file will download. After download completes click on that, And then select run → Next → Next → Select your destination folder where you want to install. By default it will show “C:\Program Files\Java\...”. Select Next and then it will install JDK.
- 8) After installation completes, if you want see the documentation about java select “Next Steps” button, otherwise click on Close Button.
- 9) Then go to “C:\Program Files\Java\”. Then you should be able to see two folders with names JRE and JDK.
- 10) Installation of Java is completed. But in order to use Java in your system you need to configure it.
- 11) Follow below instructions to configure Java in your system.

Java Configuration Check:

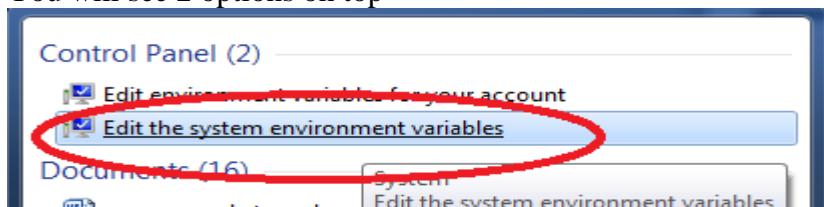
First we need to check whether java is configured in your system or not.

- ➔ Press Windows + r
- ➔ It will open run
- ➔ Then type cmd
- ➔ Command prompt will open
- ➔ Type “javac” and press enter
- ➔ If Java is configured in your system you will see all java commands displayed
- ➔ If java is not configured then you will get “javac is not a recognized command”. If you see this then we need to configure java in your system.

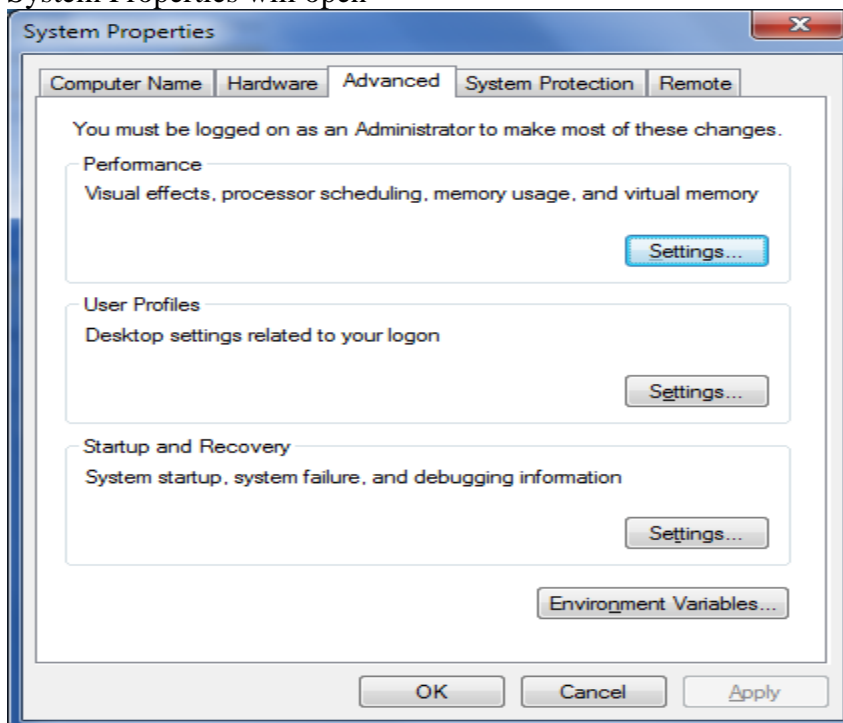
Note: Before this configuration java must be installed in your system.

Java Configuration:

- ➔ Click on Start and type “env” in the search box
- ➔ You will see 2 options on top

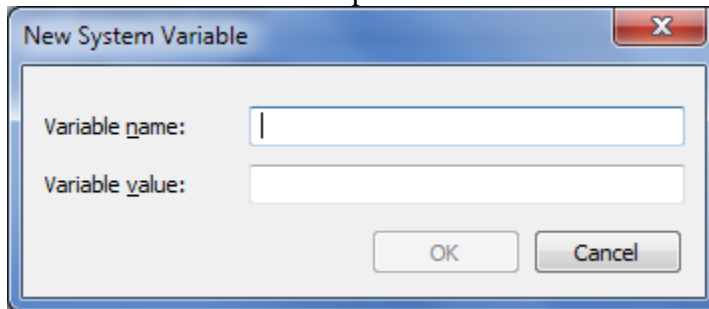


- ➔ Select “Edit the system environment variables”
- ➔ System Properties will open

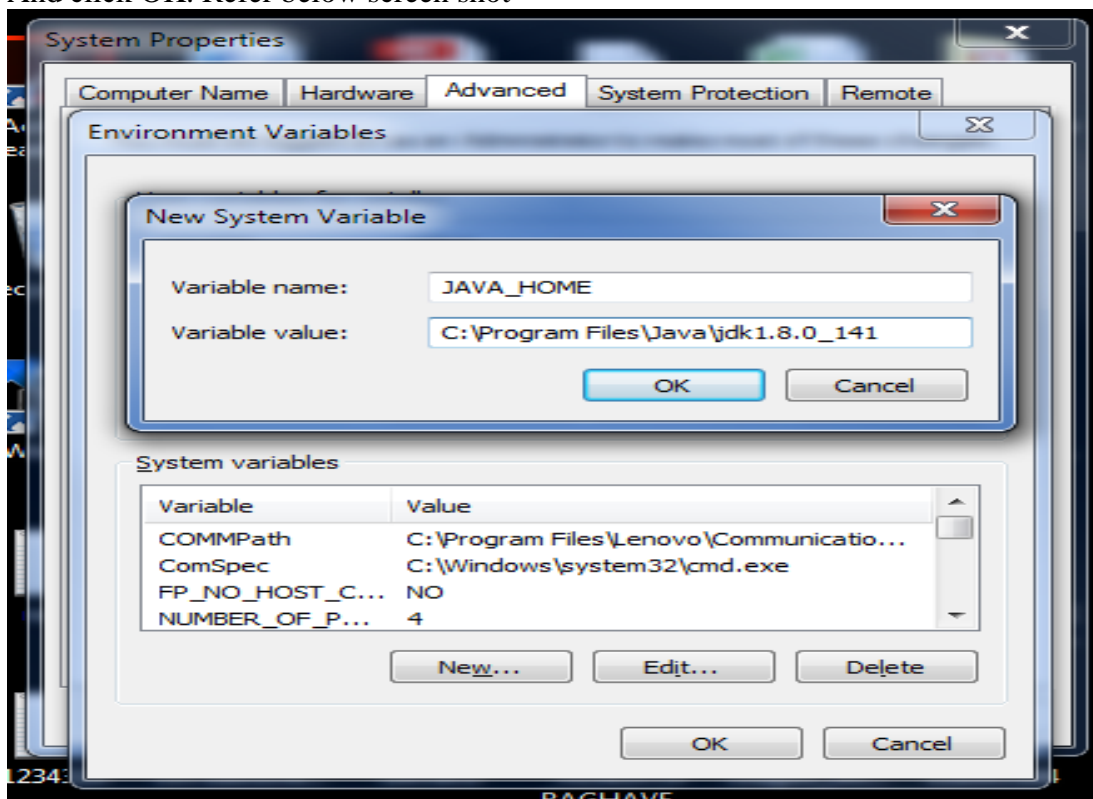


- ➔ Select “Environment Variables”

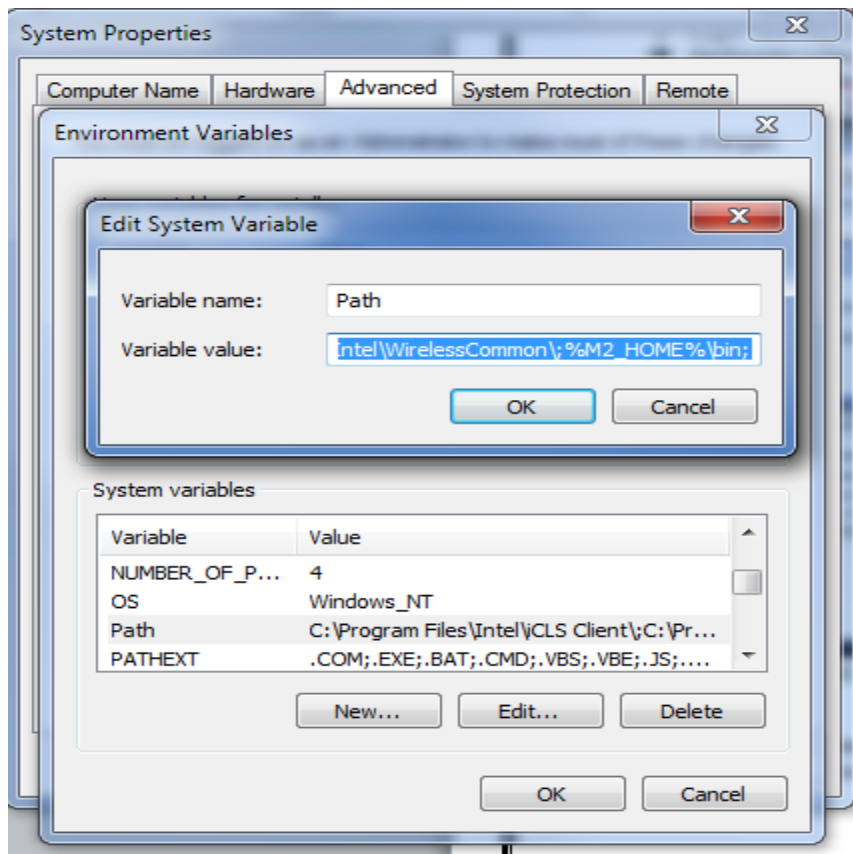
- ➔ Select New on “System Variables”
- ➔ Then below window will open



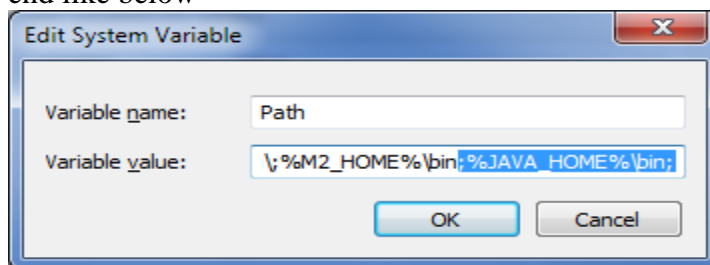
- ➔ Type “JAVA_HOME” as “Variable name:”
- ➔ And paste your jdk path in “Variable value:” Usually jdk will be installed in “C:\Programfiles\Java”. Refer below screen shot.
- ➔ And click OK. Refer below screen shot



- ➔ After this Select “Path” under System Variables and click “Edit”. Refer below screen shot.



-
- Once Edit System Variable popup opens then append “;%JAVA_HOME%\bin;” at the end like below



-
- And click OK.
- Then restart your system.
- Once this is completed, then open new command prompt and type “javac” and press Enter. Then you should be able to see all java commands.

```

Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\vt670592>javac
Usage: javac <options> <source files>
where possible options include:
  -g:none                      Generate no debugging info
  -g:<lines,vars,source>       Generate only some debugging info
  -nowarn                      Generate no warnings
  -verbose                    Output messages about what the compiler is doing
  -deprecation                Output source locations where deprecated APIs are u
sed
  -classpath <path>           Specify where to find user class files and annotati
on processors
  -cp <path>                  Specify where to find user class files and annotati
on processors
  -sourcepath <path>          Specify where to find input source files
  -bootclasspath <path>       Override location of bootstrap class files
  -extdirs <dirs>             Override location of installed extensions
  -endorsedirs <dirs>         Override location of endorsed standards path
  -proc:<none,only>           Control whether annotation processing and/or compil
ation is done.
  -processor <class1>[,<class2>,<class3>... ] Names of the annotation processors
to run; bypasses default discovery process

```

Maven:

Maven is a build tool. For Serenity project configuration we need many jar files to download and add as dependencies to our project. If we install and configure Maven in our system then maven will take care of downloading those dependency jars for our project.

Download Maven

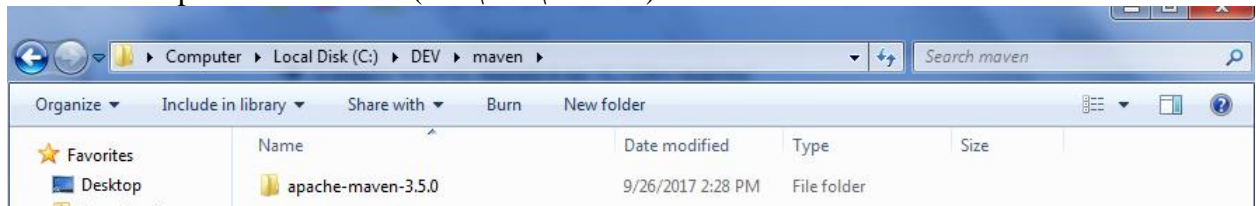
- ➔ Open “maven.apache.org/download.cgi”
- ➔ Click on Binary zip archive Link, Then maven will be downloaded as a zip file.

Apache Maven developers.

| | Link | Checksum | Signature |
|-----------------------|---|---|---|
| Binary tar.gz archive | apache-maven-3.5.2-bin.tar.gz | apache-maven-3.5.2-bin.tar.gz.md5 | apache-maven-3.5.2-bin.tar.gz.asc |
| Binary zip archive | apache-maven-3.5.2-bin.zip | apache-maven-3.5.2-bin.zip.md5 | apache-maven-3.5.2-bin.zip.asc |
| Source tar.gz archive | apache-maven-3.5.2-src.tar.gz | apache-maven-3.5.2-src.tar.gz.md5 | apache-maven-3.5.2-src.tar.gz.asc |
| Source zip archive | apache-maven-3.5.2-src.zip | apache-maven-3.5.2-src.zip.md5 | apache-maven-3.5.2-src.zip.asc |

- [Release Notes](#)
- [Reference Documentation](#)
- [Apache Maven Website As Documentation Archive](#)

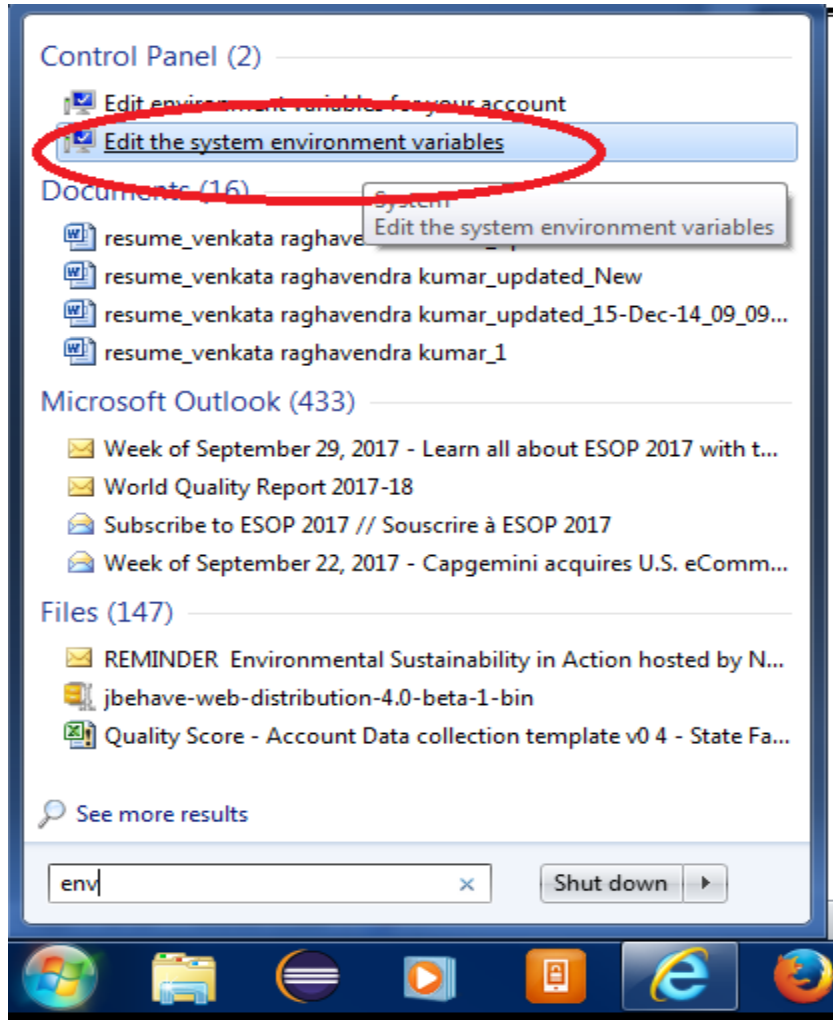
- ➔
- ➔ Extract the zip to maven folder (“C:\Dev\maven”)

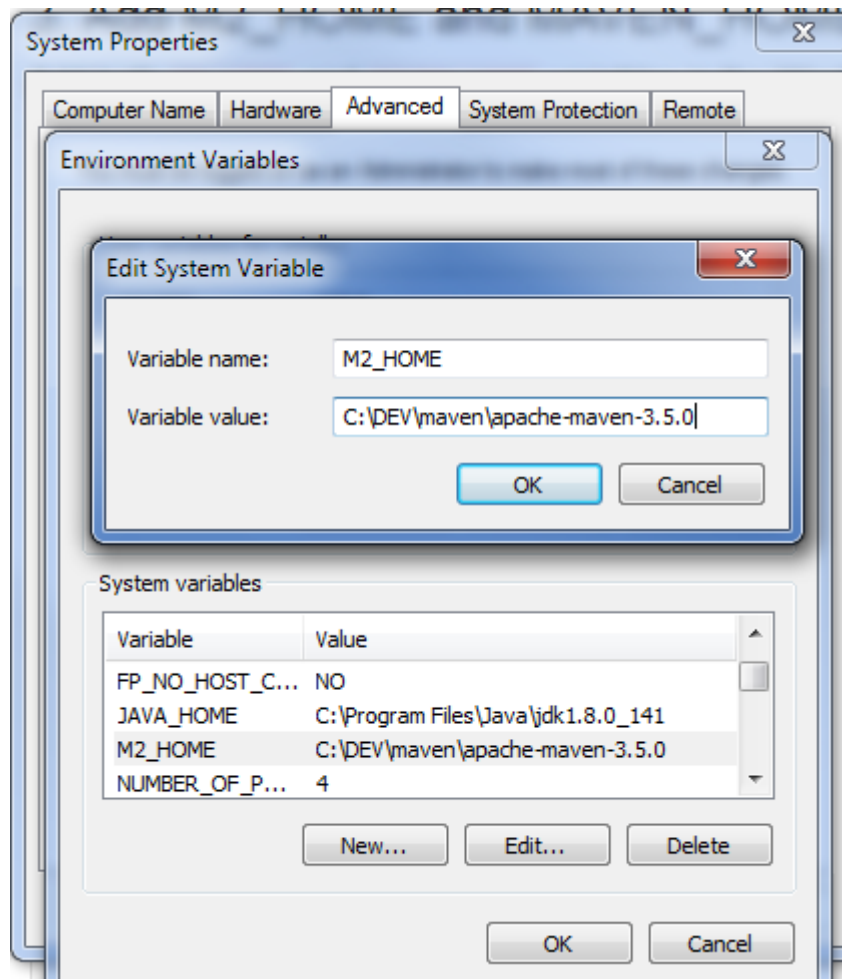


- ➔
- ➔ After this we need to set “M2_HOME” and “MAVEN_HOME” in Edit System environment variables.

Adding M2_HOME and MAVEN_HOME:

- We need to make sure that Maven is available to Eclipse to use. Same like accessing java we need to access maven from Eclipse.
- For accessing maven like java we need to set the maven in “Edit System environment variables” like below.
- Open “Edit the System Environment variables” and select new System variable, then type “M2_HOME” for Variable name: and mention your maven folder for Variable value: as below and click OK.

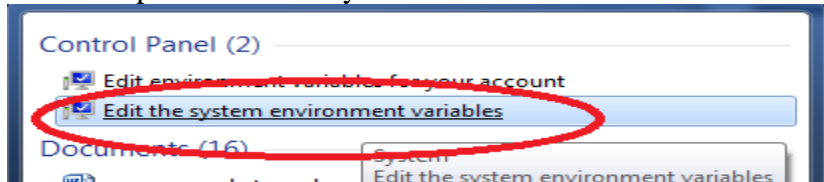




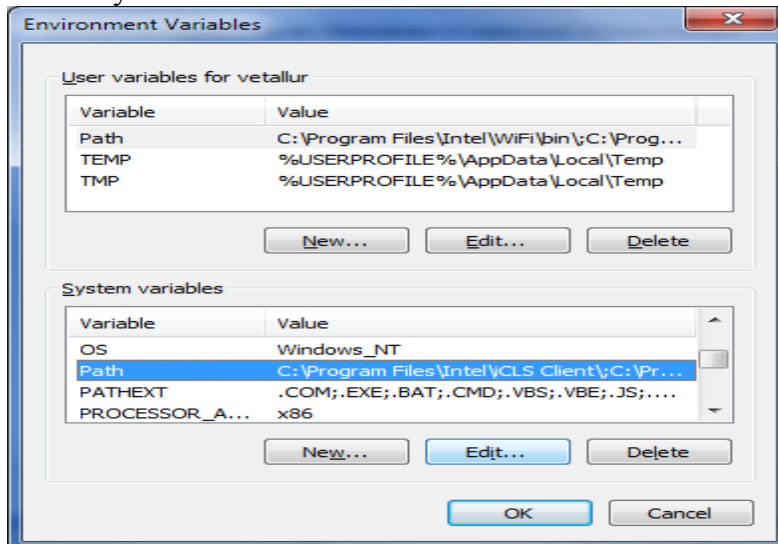
- ➔
- ➔ Repeat the same as above for “MAVEN_PATH”. Just type “MAVEN_PATH” instead “M2_HOME” this time.
- ➔ Restart your system after this process is completed.

Add Maven to Path:

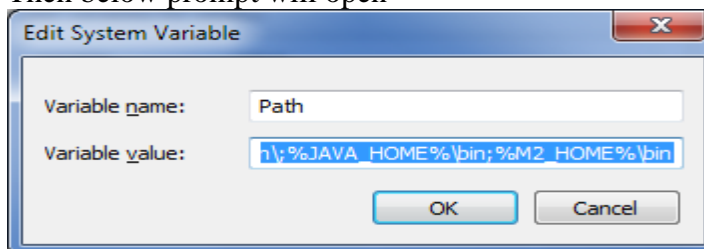
- ➔ Also we need to set the maven in the “Path” of the “Edit The System Environment Variables”. Then only we can access Maven from command prompt.
- ➔ For this Open “Edit The System Environment Variables”



- ➔ Under System variables check for “Path” and select it and click on Edit like below.



- ➔ Then below prompt will open



- ➔ Just add “;%M2_HOME%\bin;” at the end of the Variable value: and click on OK. Then Restart your system.
- ➔ Now open command prompt and type “mvn -version” and press enter (mvn space - version)
- ➔ Then you should be able to see the maven version and java path values

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\vt670592>mvn -version
Apache Maven 3.5.0 (ff8f5e7444045639af65f6095c62210b5713f426; 2017-04-03T14:39:06-05:00)
Maven home: C:\DEU\maven\apache-maven-3.5.0\bin\..
Java version: 1.8.0_141, vendor: Oracle Corporation
Java home: C:\Program Files\Java\jdk1.8.0_141\jre
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 7", version: "6.1", arch: "x86", family: "windows"

C:\Users\vt670592>
```

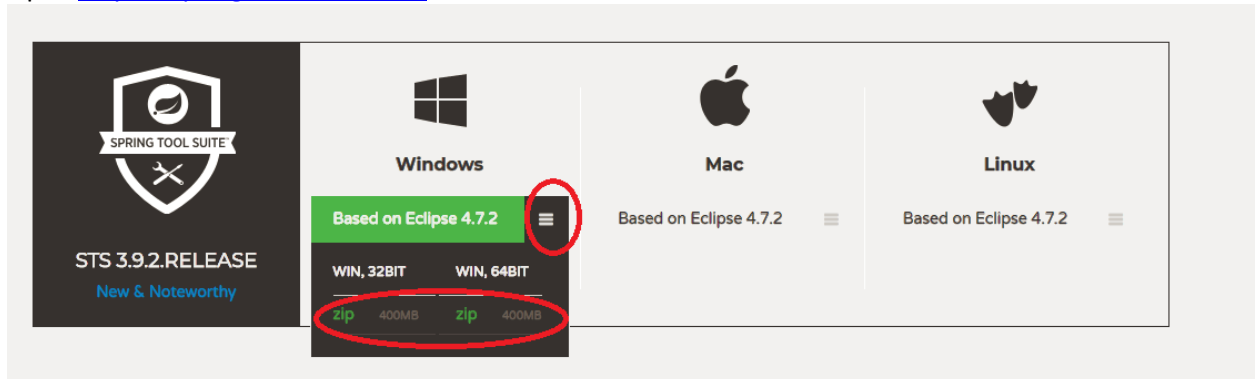
Eclipse/STS Installation:

Eclipse or STS are IDE which will give us flexibility to develop the coding. They will have many plug-ins which will help to create project structures by default for your coding.

I would suggest everyone to install STS. STS will come with maven configuration by default. In case if you have already installed Eclipse then it is also fine. Follow the Maven Eclipse Integration steps in the next page if you are using Eclipse.

STS Download:

- 1) Open <https://spring.io/tools/sts/all>



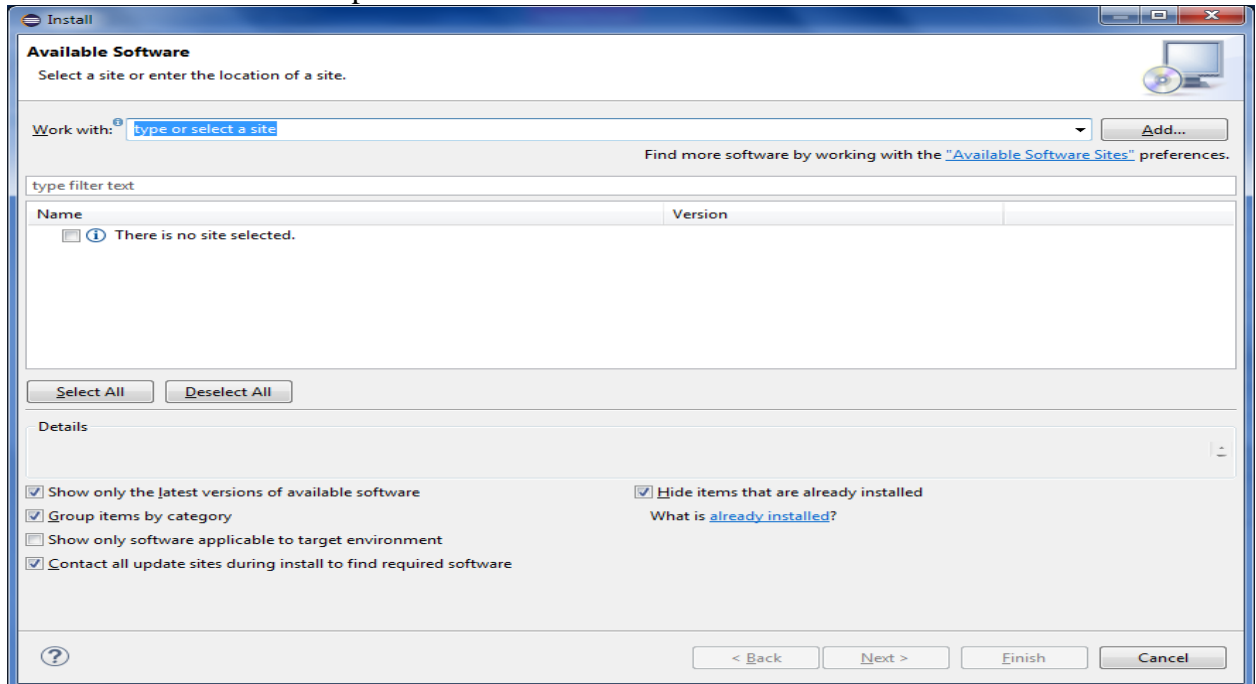
- 2)
- 3) Click on the symbol highlighted in small red circle. Then click on the zip link according to your system (32-bit or 64-bit).
- 4) Once the zip file is downloaded then copy and paste it in "C:\DEV\" and then right click on the zip file and select → Win Zip → Extract to Here.
- 5) Then sts-bundle will come. Go to → sts-bundle → sts-3.9.2.RELEASE. Then open STS.exe. Then your STS will open.

Note: As mentioned earlier if you have already Eclipse in your system then follow the below instructions to configure Maven in Eclipse. If you don't have Eclipse in your system then I would suggest you to install STS.

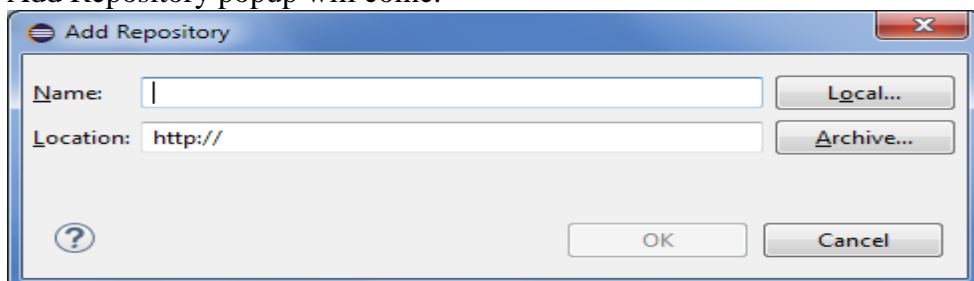
Maven To Eclipse Integration:

Since we are all installed Eclipse before Maven installation, Eclipse is not capable of using Maven. But for our Serenity project we need Maven. So, we need to make Eclipse to consume Maven. For this we need to do “Maven To Eclipse Integration”. i.e. one plugin installation.

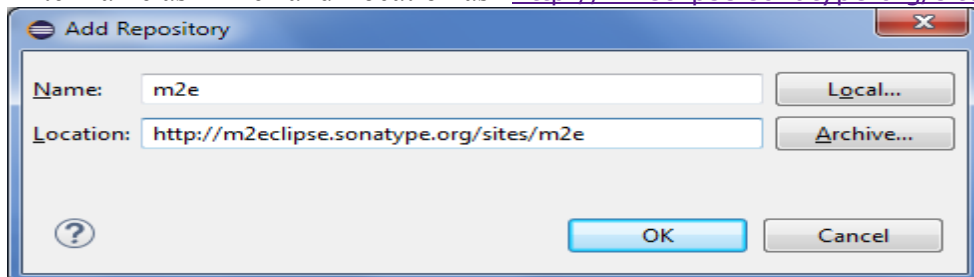
- Open Eclipse
- Select Help -> Install New Software...
- Then below window will open.



- Then click on Add... Button.
- Add Repository popup will come.

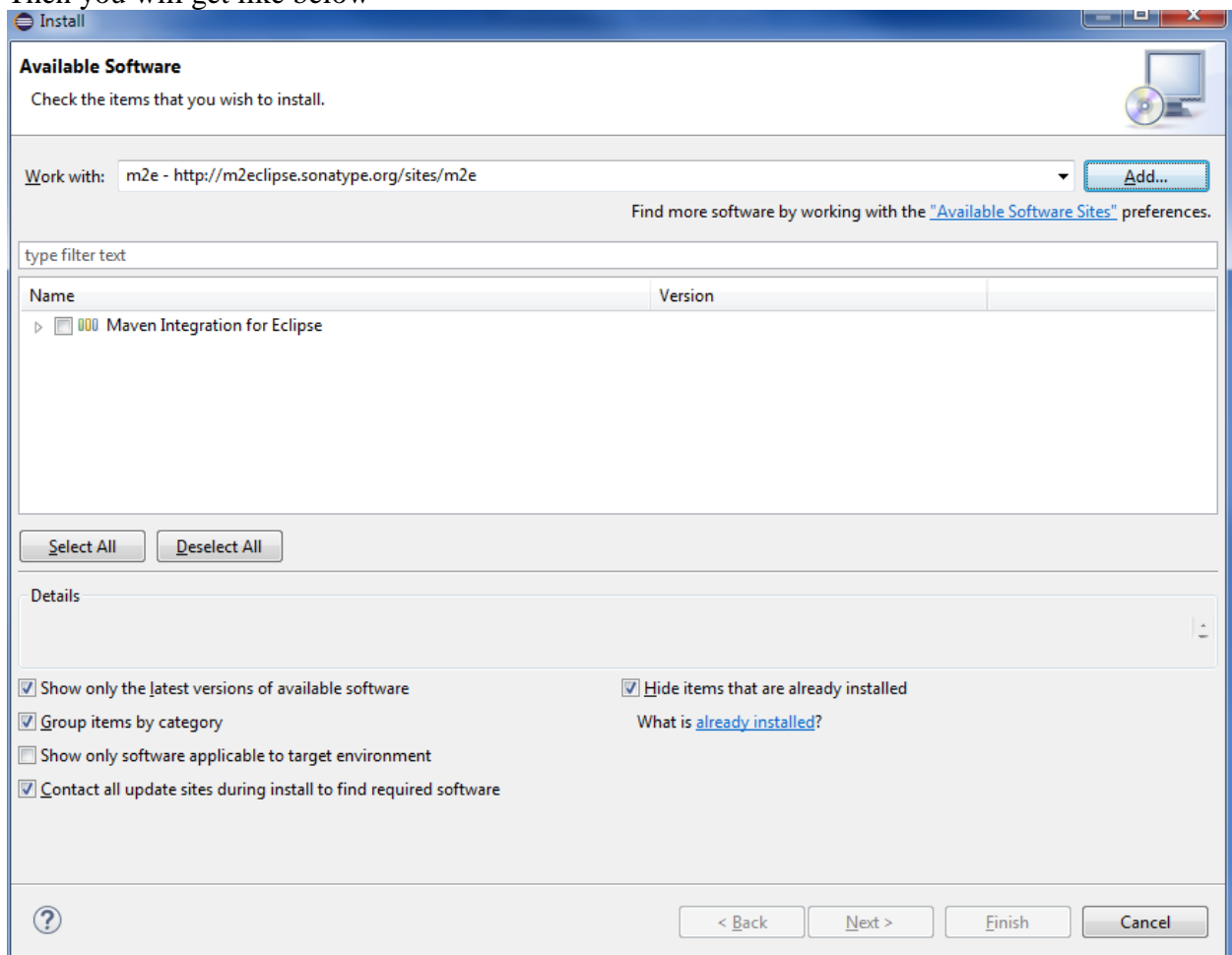


- Enter name as “m2e” and Location as “<http://m2eclipse.sonatype.org/sites/m2e>”



→

- ➔ And click on OK.
- ➔ Then you will get like below

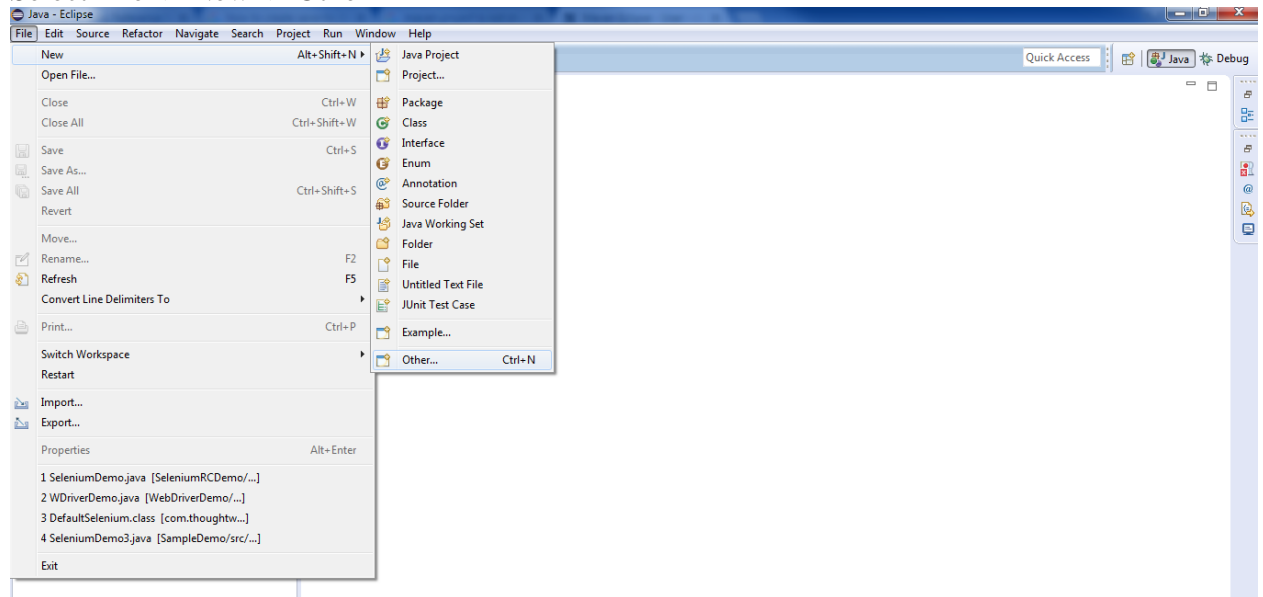


- ➔ Select “Maven Integration for Eclipse” checkbox and Select Next-> Next-> I accept -> Finish
- ➔ Restart Eclipse after installation

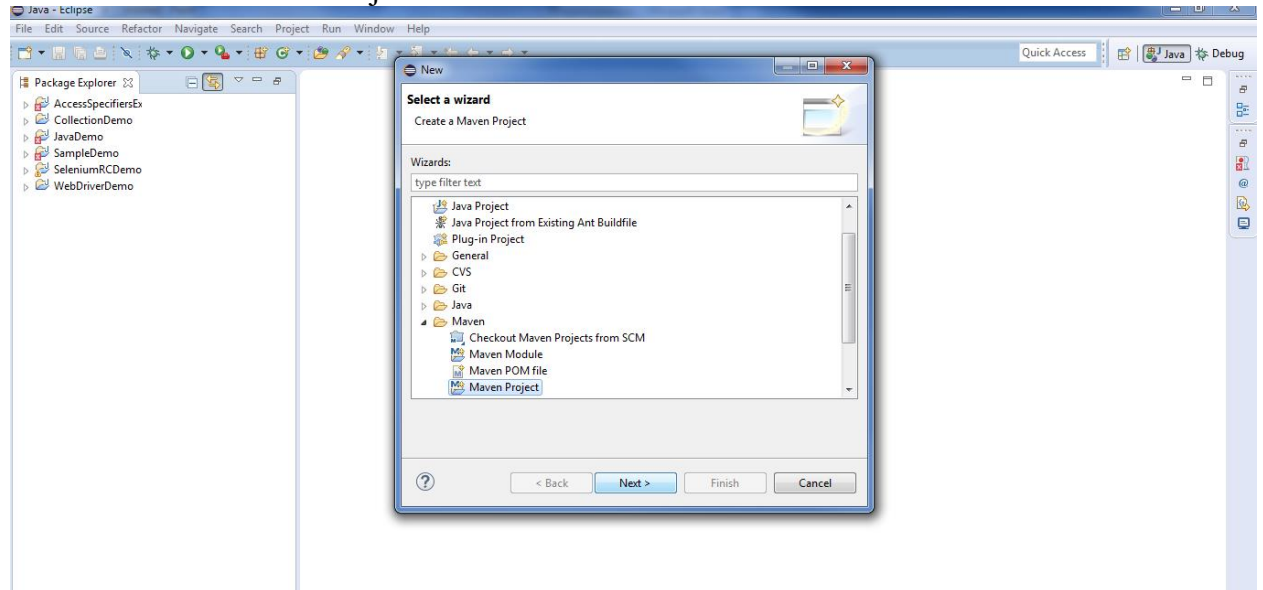
Creating Maven Project:

Once above Steps are completed then we should be ready to create a Maven project for Serenity.

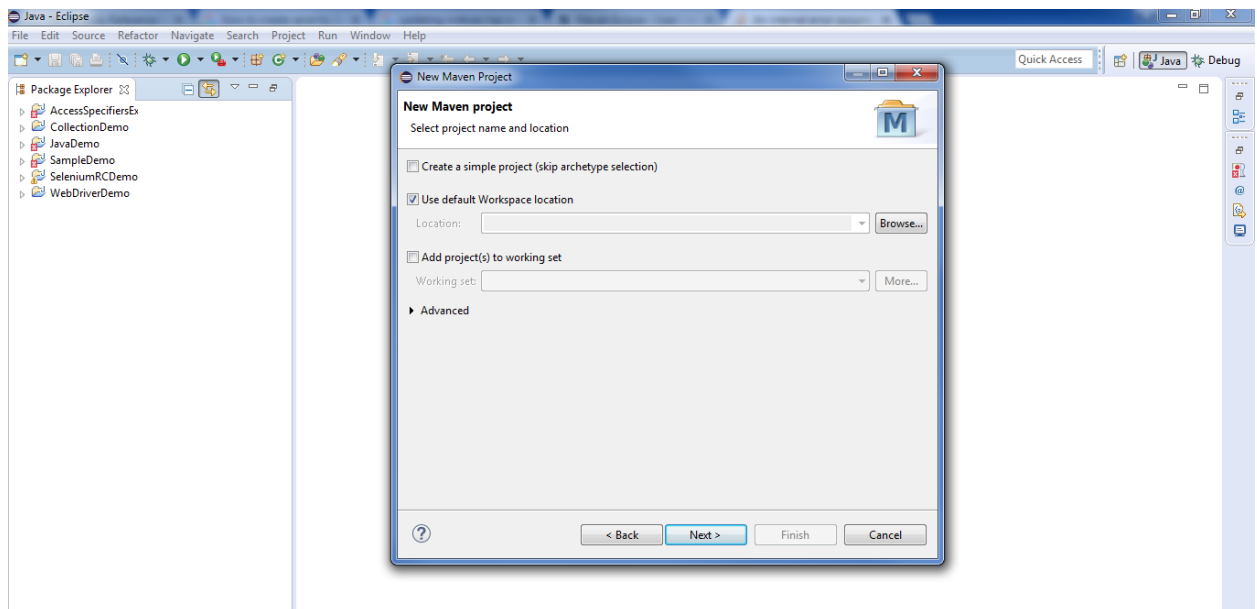
- ➔ Open STS/Eclipse.
- ➔ Select File -> New -> Other



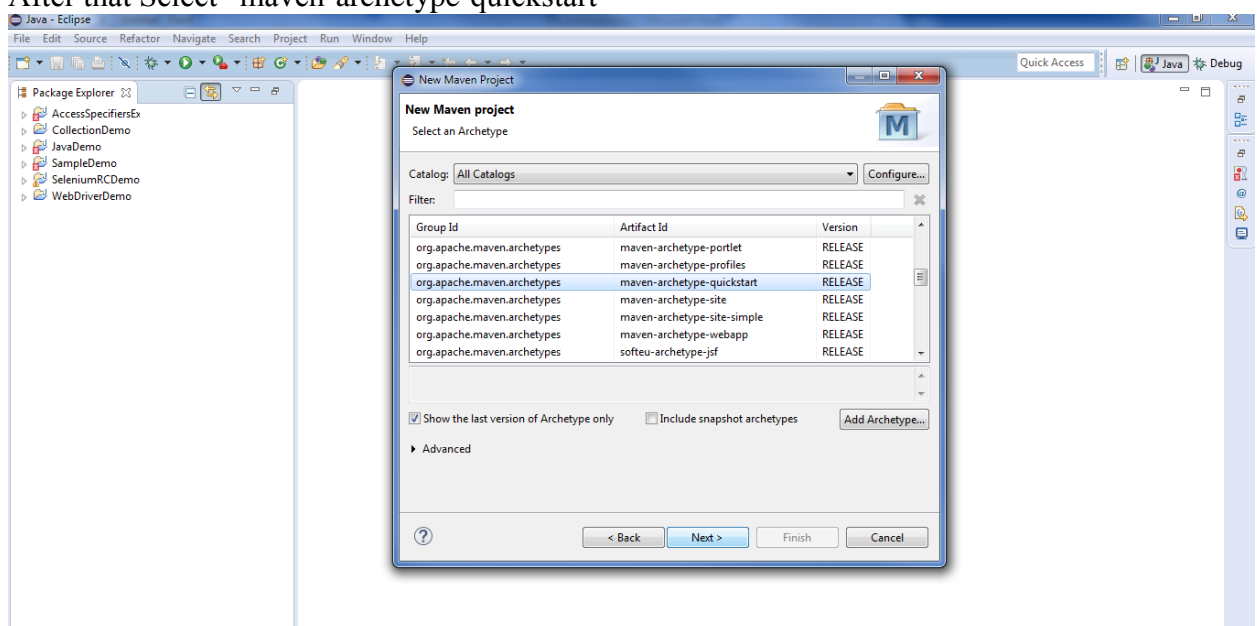
- ➔
- ➔ Select Maven -> Maven Project



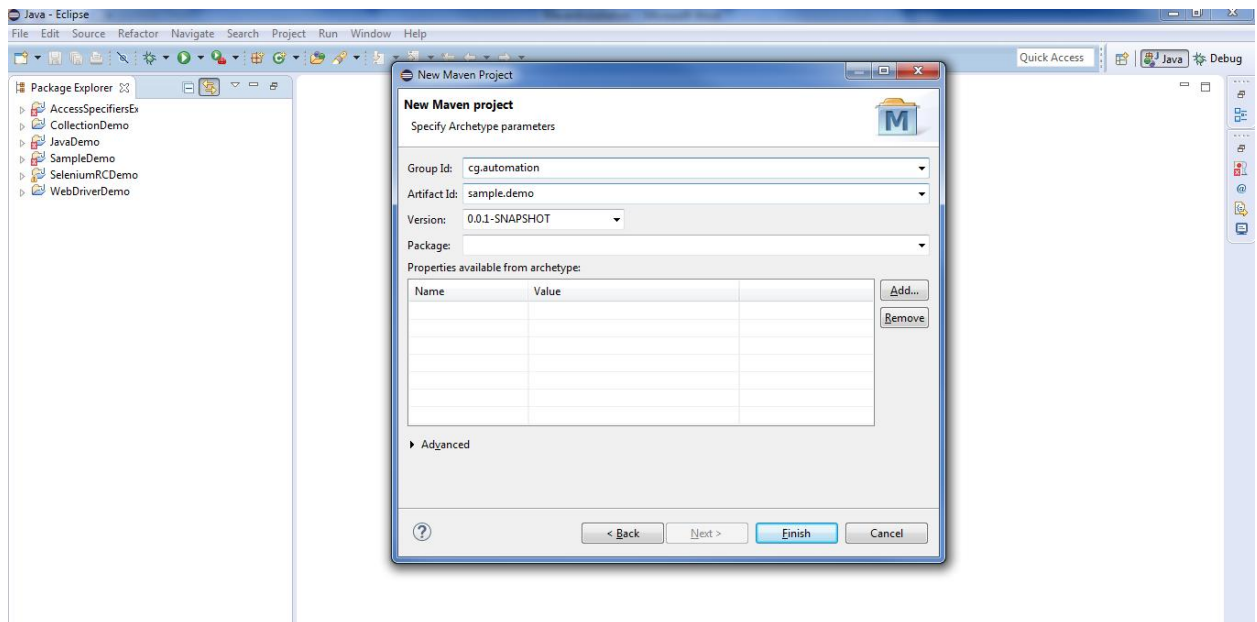
- ➔
- ➔ Select Next
- ➔ New Maven Project Wizard will open.



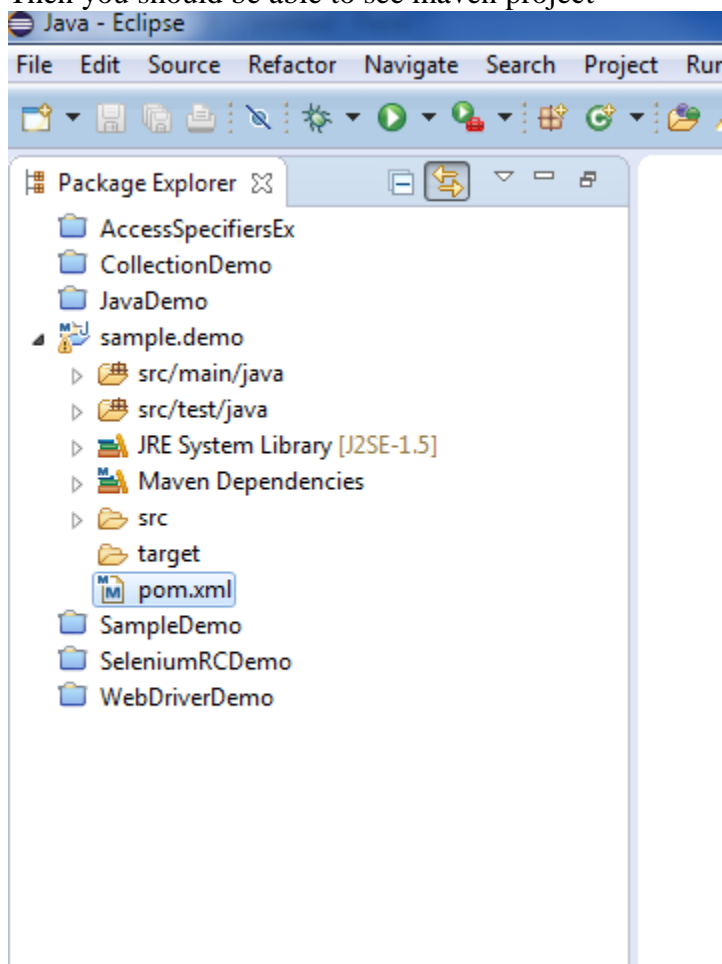
- ➔
- ➔ Select Next
- ➔ After that Select “maven-archetype-quickstart”



- ➔
- ➔ Select Next
- ➔ Then Enter Group Id, Artifact Id and click Finish. Make a note of this Group ID and artifact ID for below steps (Download of Serenity Dependencies).
- ➔ Here Group Id means name of a location where a group of projects can be stored
- ➔ Artifact Id means the project name



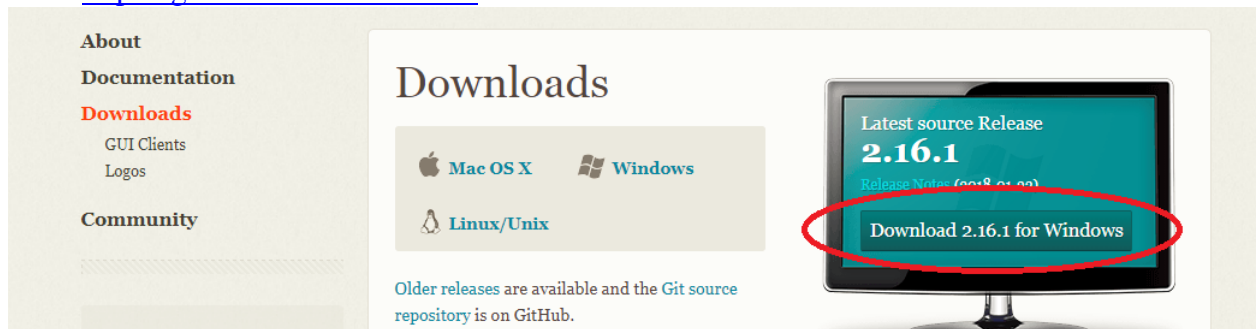
→
→ Then you should be able to see maven project



→

GIT Installation:

- ➔ Go to <https://git-scm.com/downloads>



- ➔
- ➔ Click on the highlighted button.
- ➔ Then your download will start. If not started then click on “Click here to download manually” link.
- ➔ Once download is completed, double click on the exe.
- ➔ Select Run → Next → Next → Next → Next → Next → Next → Next → Install
- ➔ Once installation is completed click Finish.

Note: If you have already installed GIT then you can skip this. In case if you want to install latest version then before starting installation open your task manager and check for “sh.exe” processes. If any of them are there then End those Processes before GIT installation.