



Installing JDK and Eclipse

Lecture A



Bineet Sharma

Installing JDK & Eclipse

- ▶ Two popular Java IDEs to develop Java Applications
 - ▶ NetBeans, and
 - ▶ Eclipse: We will use Eclipse in this class
- ▶ Follow these steps in this order:
 - ▶ Install JDK (Java Development Kit Standard Edition)
 - ▶ <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
 - ▶ Make sure you install Java SE (Standard Edition ~~—not EE~~)
 - ▶ Get the latest version (it may be newer than shown here)
 - ▶ Install Eclipse
 - ▶ Eclipse IDE for Java Developers (Not for ~~EE developers~~)
 - ▶ <http://www.eclipse.org>
 - ▶ Get the latest version (it may be newer than shown here)

Installing JDK & Eclipse

► First you need to download and install JDK

► <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

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Java SE Downloads

Java Platform (JDK) 8u131

NetBeans with JDK 8

Java Platform, Standard Edition

Java SE 8u131
Java SE 8u131 includes important security fixes and bug fixes. Oracle strongly recommends that all Java SE 8 users upgrade to this release.
[Learn more](#)

Important planned change for MD5-signed JARs
Starting with the April Critical Patch Update releases, planned for April 18 2017, all JRE versions will treat JARs signed with MD5 as unsigned. [Learn more and view testing instructions.](#)
For more information on cryptographic algorithm support, please check the [JRE and JDK Crypto Roadmap](#).

Installation Instructions
Release Notes
Oracle License

JDK
DOWNLOAD

Java SDKs and Tools

- Java SE
- Java EE and Glassfish
- Java ME
- Java Card
- NetBeans IDE
- Java Mission Control

Java Resources

- Java APIs
- Technical Articles
- Demos and Videos
- Forums
- Java Magazine
- Java.net
- Developer Training
- Tutorials
- Java.com

The latest version may be different

Installing JDK & Eclipse

- Click on Java SE & select downloads for your Operating System

[Overview](#) | [Downloads](#) | [Documentation](#) | [Community](#) | [Technologies](#) | [Training](#)

Java SE Development Kit 8 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, applets, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [Java Developer Newsletter](#) (tick the checkbox under Subscription Center > Oracle Technology News)
- [Java Developer Day hands-on workshops](#) (free) and other events
- [Java Magazine](#)

[JDK MD5 Checksum](#)

Looking for JDK 8 on ARM?
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Java SE Development Kit 8u5

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Linux x86	133.58 MB	jdk-8u5-linux-i586.rpm
Linux x86	152.5 MB	jdk-8u5-linux-i586.tar.gz
Linux x64	133.87 MB	jdk-8u5-linux-x64.rpm
Linux x64	151.64 MB	jdk-8u5-linux-x64.tar.gz

Installing JDK & Eclipse

- Click on the compressed file name for your OS

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Linux x64	151.64 MB	jdk-8u5-linux-x64.tar.gz
Mac OS X x64	207.79 MB	jdk-8u5-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	135.68 MB	jdk-8u5-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	95.54 MB	jdk-8u5-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	135.9 MB	jdk-8u5-solaris-x64.tar.Z
Solaris x64	93.19 MB	jdk-8u5-solaris-x64.tar.gz
Windows x86	151.71 MB	jdk-8u5-windows-i586.exe
Windows x64	155.18 MB	jdk-8u5-windows-x64.exe

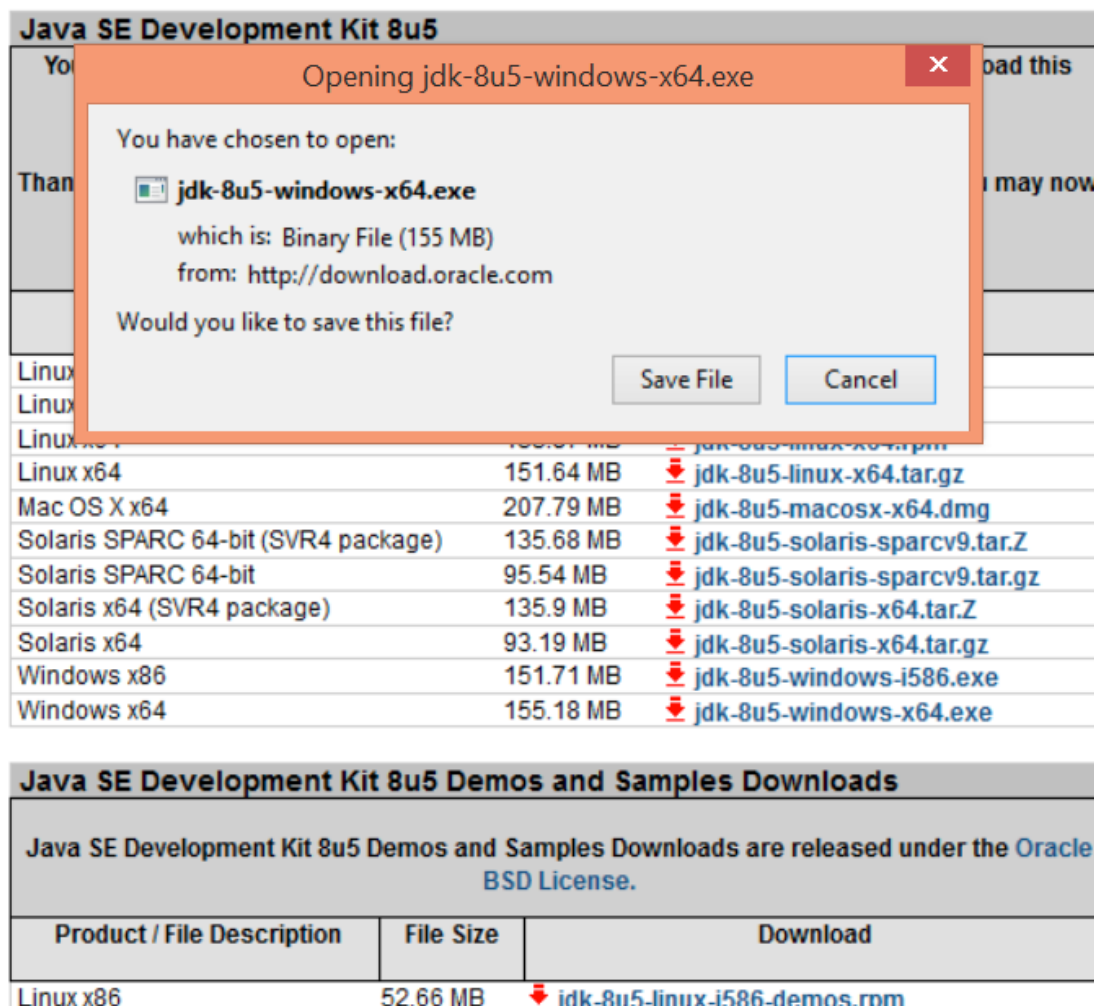
Java SE Development Kit 8u5 Demos and Samples Downloads

Java SE Development Kit 8u5 Demos and Samples Downloads are released under the [Oracle BSD License](#).

Product / File Description	File Size	Download
Linux x86	52.66 MB	jdk-8u5-linux-i586-demos.rpm
Linux x86	52.65 MB	jdk-8u5-linux-i586-demos.tar.gz
Linux x64	52.72 MB	jdk-8u5-linux-x64-demos.rpm
Linux x64	52.7 MB	jdk-8u5-linux-x64-demos.tar.gz
Mac OS X	53.42 MB	jdk-8u5-macosx-x86_64-demos.zip
Solaris SPARC 64-bit	12.15 MB	jdk-8u5-solaris-sparcv9-demos.tar.Z
Solaris SPARC 64-bit	8.29 MB	jdk-8u5-solaris-sparcv9-demos.tar.gz
Solaris x64	12.2 MB	jdk-8u5-solaris-x64-demos.tar.Z

Installing JDK & Eclipse

- E.g. 64 bit Windows Operating System. Save the file



The screenshot shows the Oracle Java SE Development Kit 8u5 download page. A file download dialog is open, asking to save the file `jdk-8u5-windows-x64.exe` (155 MB) from `http://download.oracle.com`. The dialog has "Save File" and "Cancel" buttons. Below the dialog is a table of download links for various operating systems.

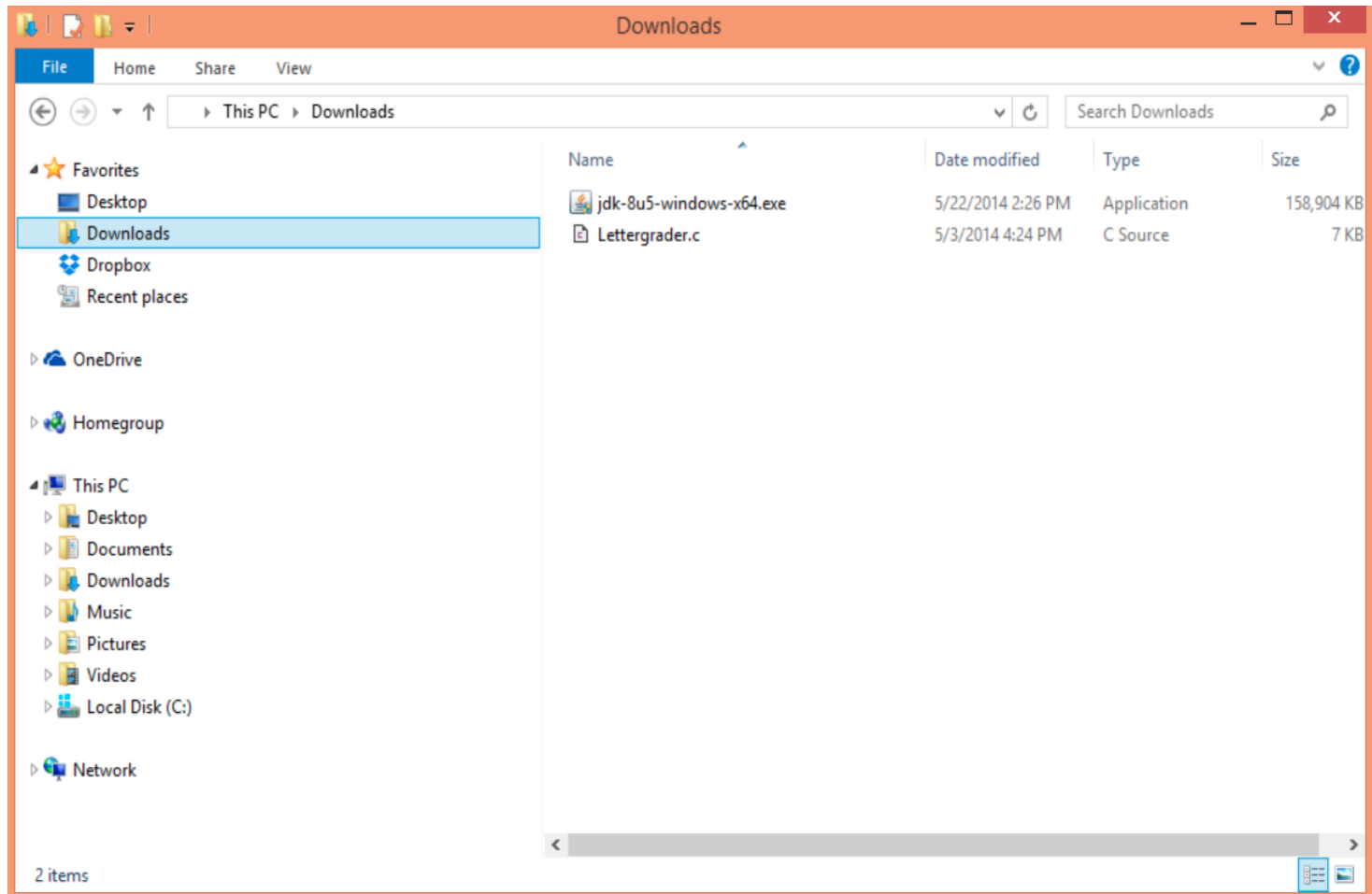
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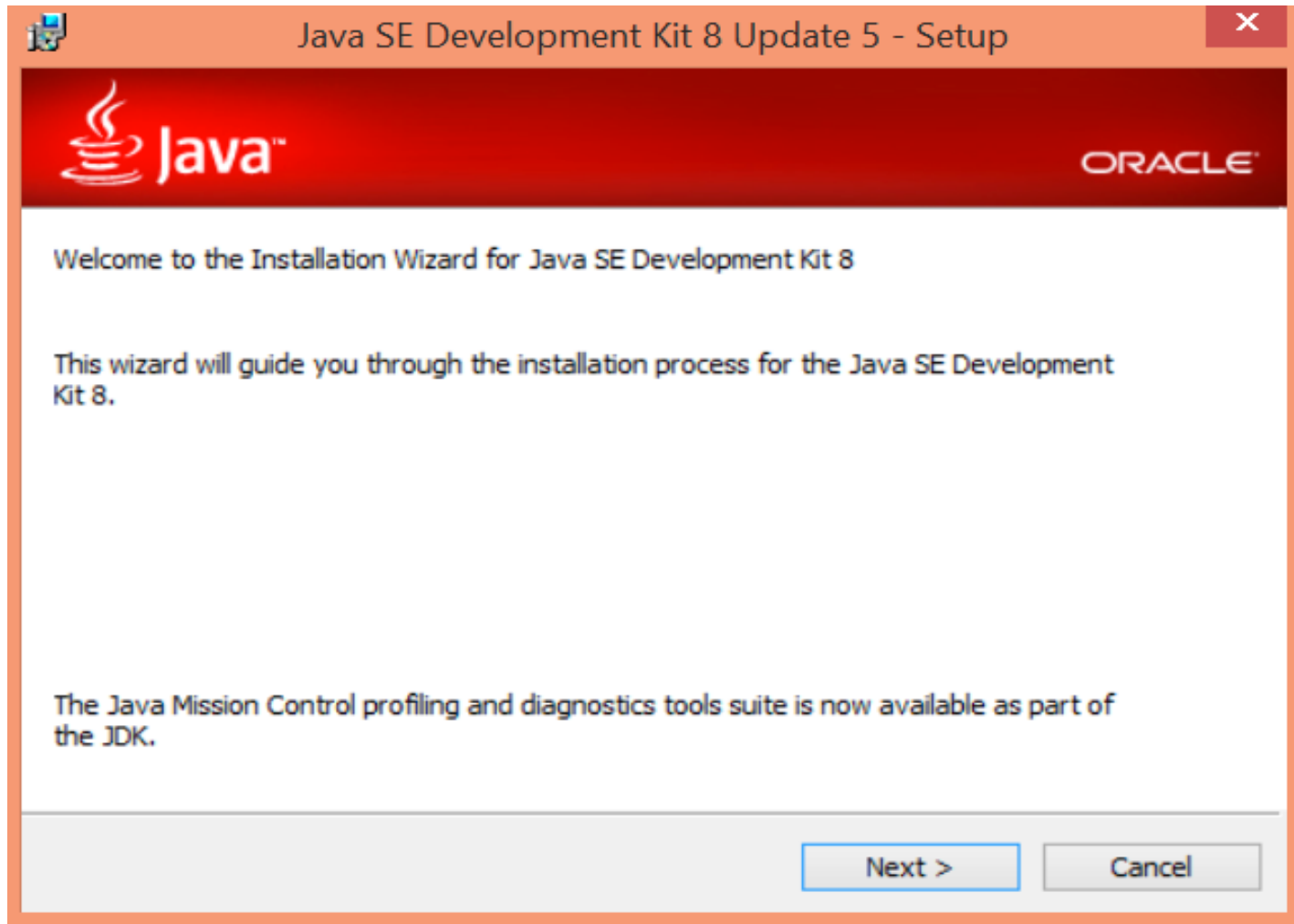
Installing JDK & Eclipse

- Once downloaded, double click and follow the instruction



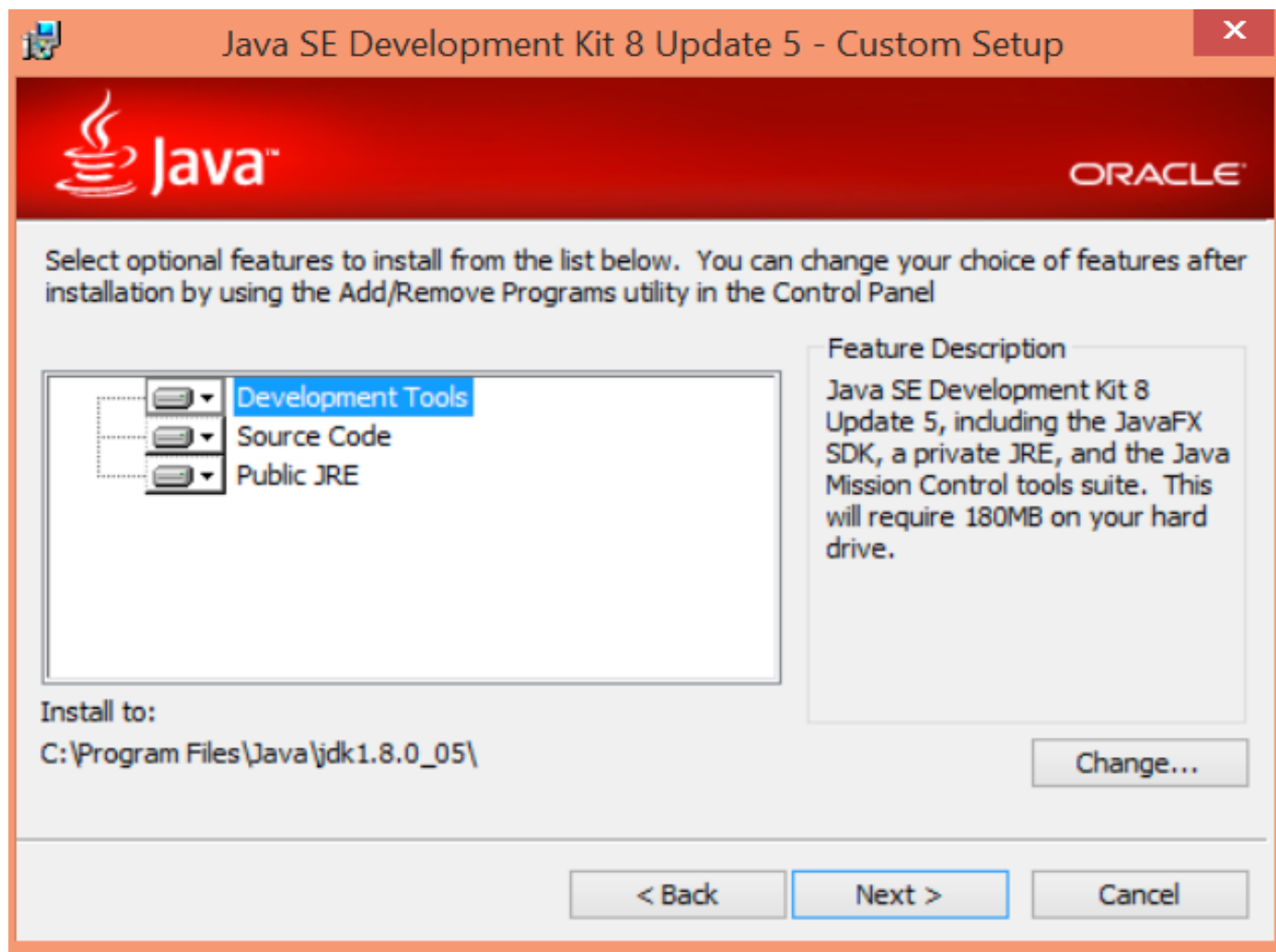
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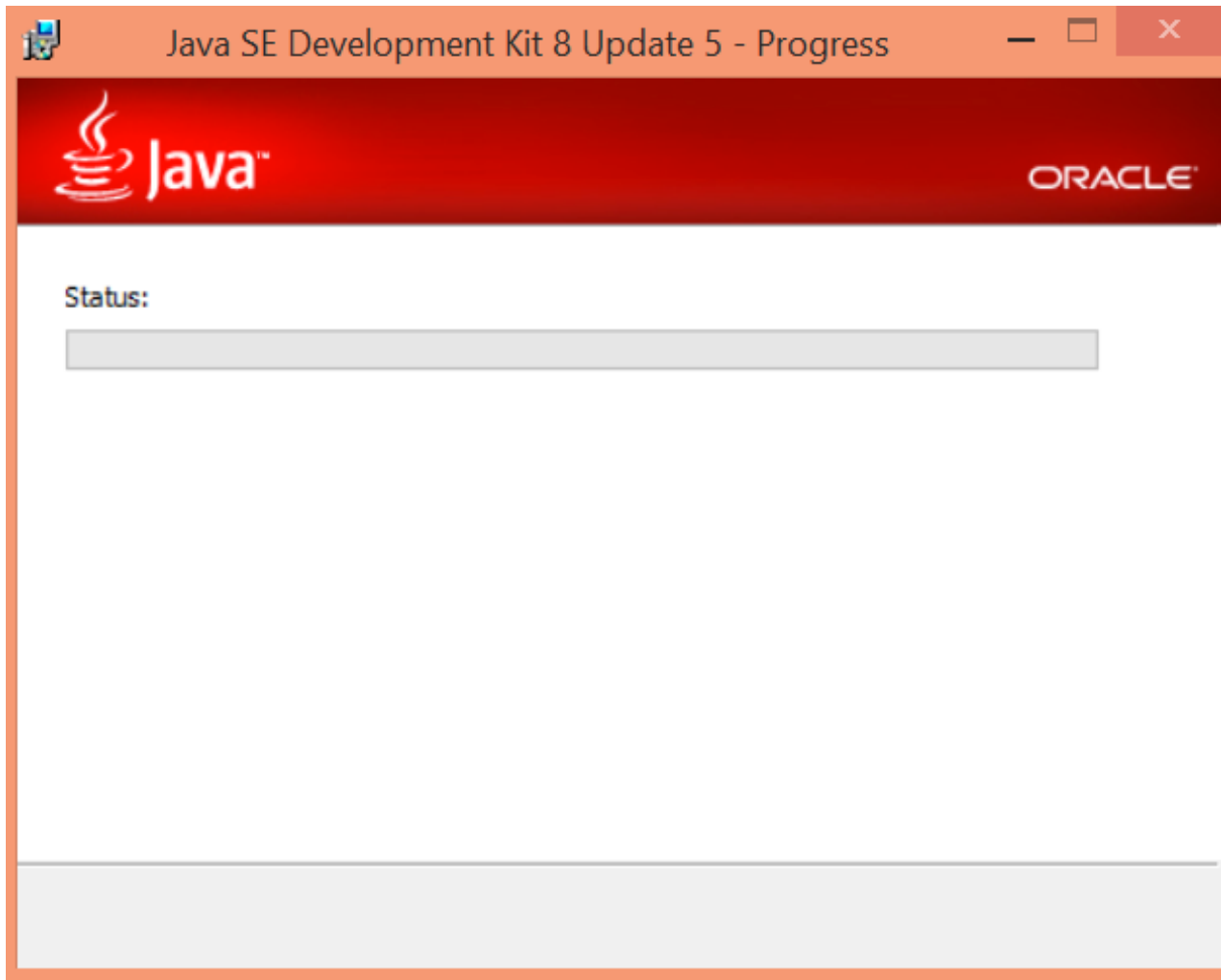
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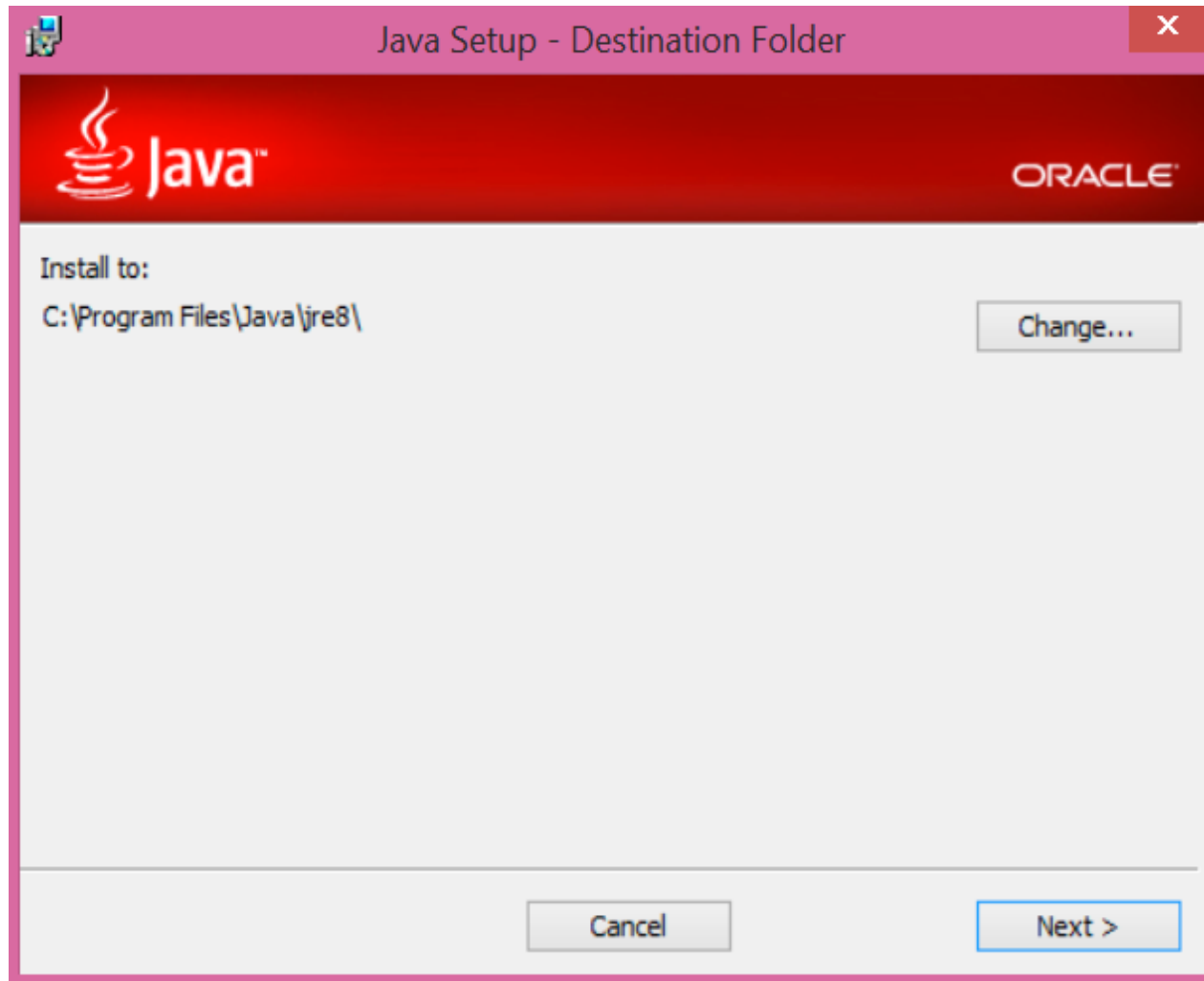
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- ▶ Once downloaded, double click and follow the instruction



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Installing JDK & Eclipse

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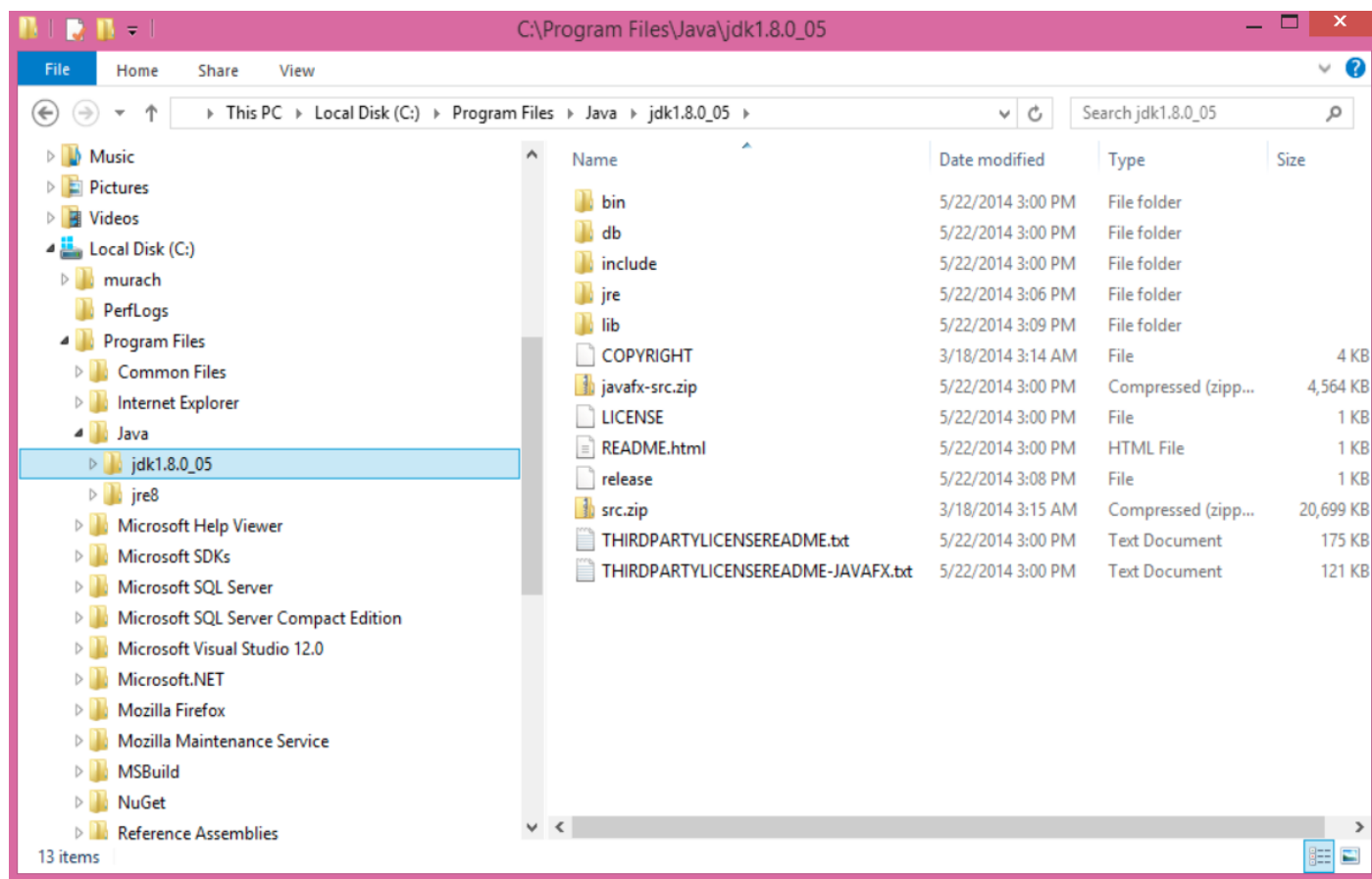
Installing JDK & Eclipse

- Once downloaded, double click and follow the instruction



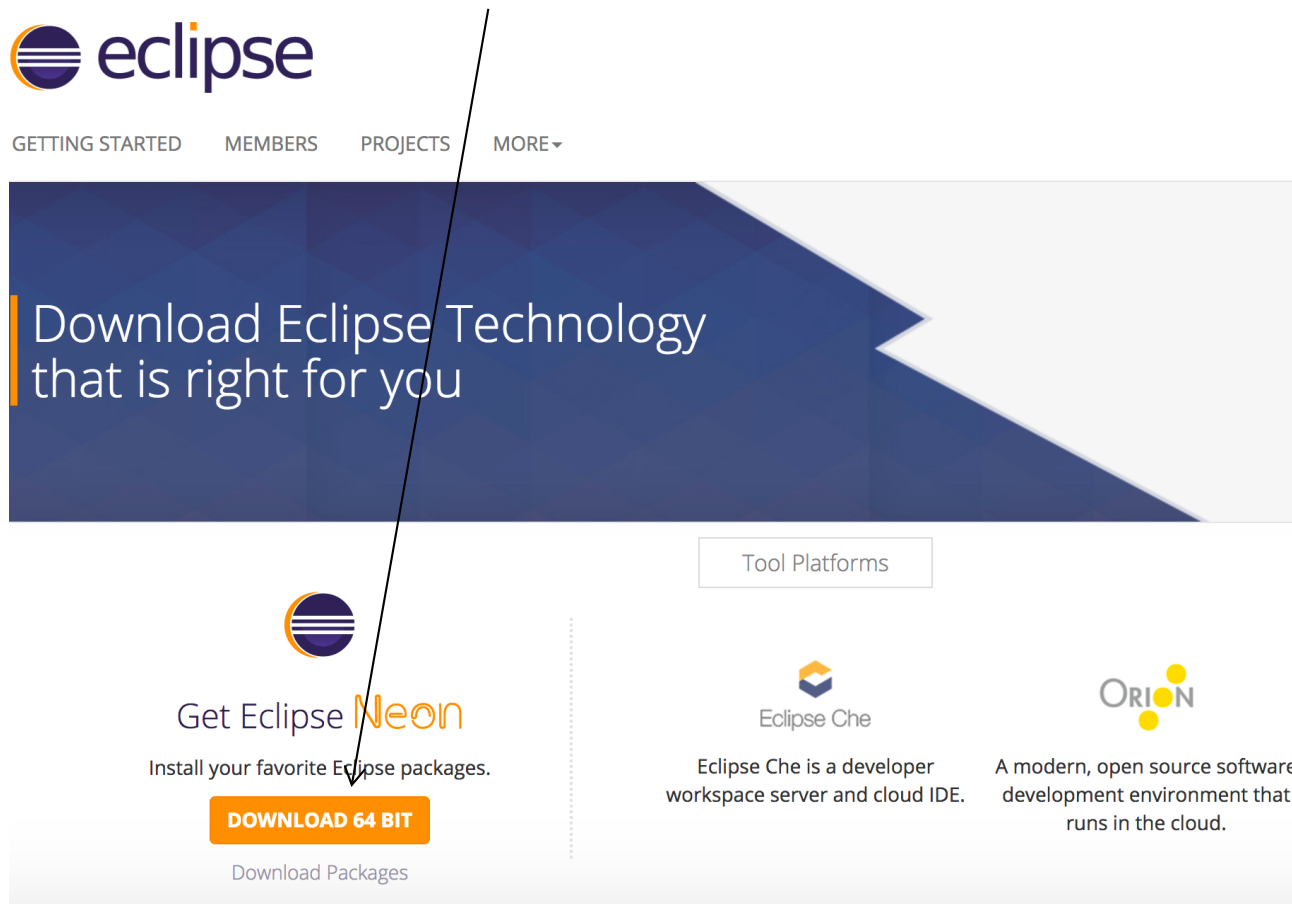
Installing JDK & Eclipse

- ▶ Your folder after the successful installation
- ▶ Other OS installation, including MAC will be similar



Installing JDK & Eclipse

- ▶ Now, install Eclipse IDE for Java Developers
- ▶ Click Downloads www.eclipse.org/downloads (latest page may look different)



Installing JDK & Eclipse

- ▶ Select your OS (Operating System): Latest navigation pages may be different!



Eclipse IDE for Java Developers

Package Description

The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Mylyn, Maven integration and WindowBuilder

This package includes:

- Eclipse Git Team Provider
 - Eclipse Java Development Tools
 - Maven Integration for Eclipse
 - Mylyn Task List
 - Code Recommenders Tools for Java Developers
 - WindowBuilder Core
 - Eclipse XML Editors and Tools
- ▶ Detailed features list

Download Links

Windows 32-bit
Windows 64-bit
Mac OS X (Cocoa) 64-bit
Linux 32-bit
Linux 64-bit

Downloaded 959,970 Times

▶ Checksums...

Bugzilla

▶ Open Bugs: 21

▶ Resolved Bugs: 78

File a Bug on this Package

Maintained by: Eclipse Packaging Project

Installing JDK & Eclipse

► Select default download site

Eclipse downloads - Select a mirror

All downloads are provided under the terms and conditions of the **Eclipse Foundation Software User Agreement** unless otherwise specified.

Download from: **Canada - Rafal Rzekzkowski (http)** **OR**

File: eclipse-java-mars-1-win32-x86_64.zip

Checksums:

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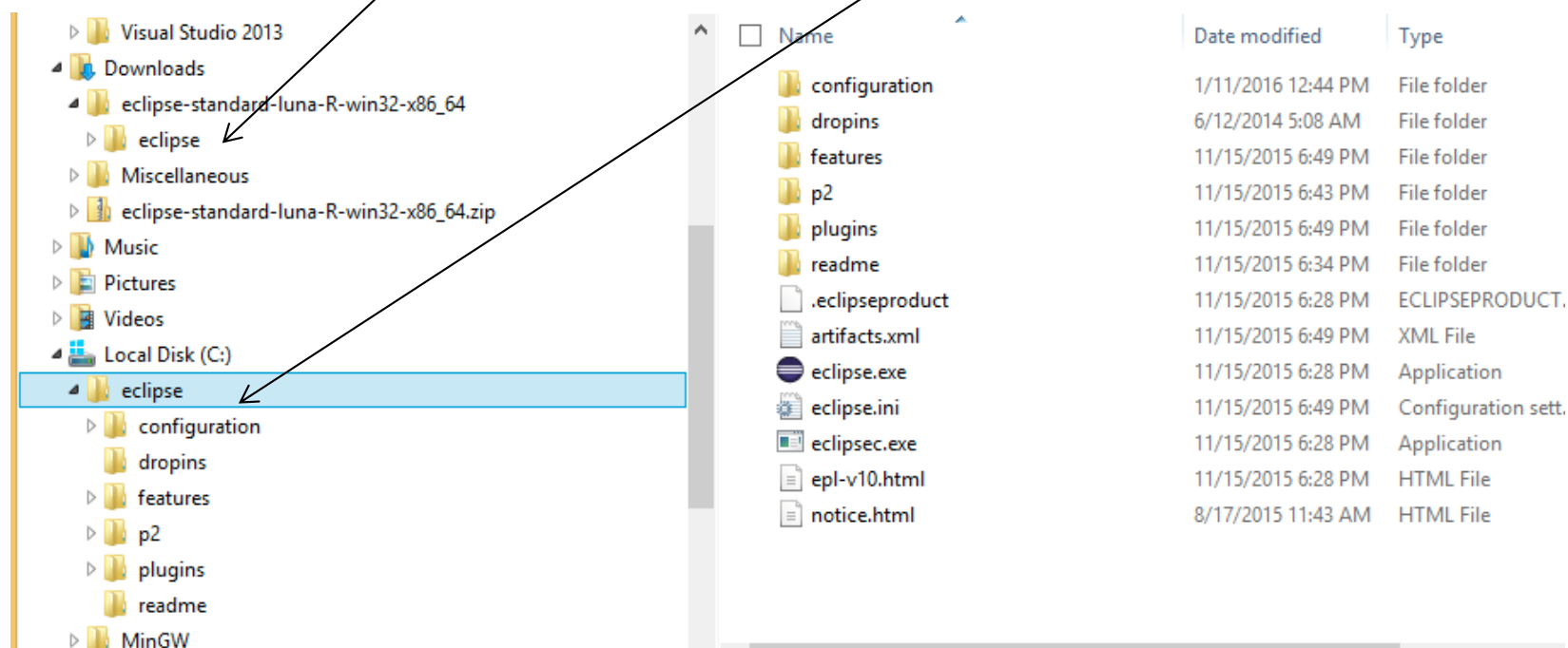
United States - **Indiana University**

United States - **XMission Internet**

United States - **OSU Open Source Lab**

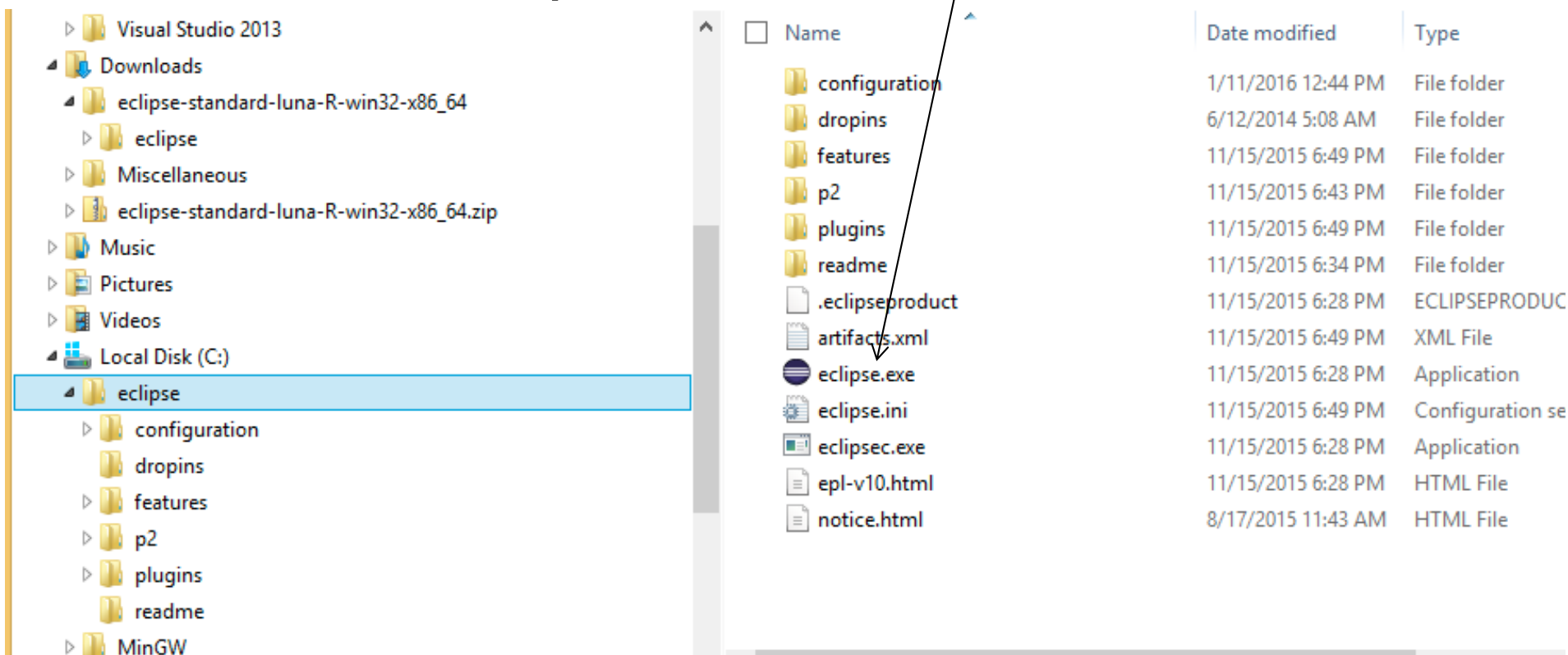
Installing JDK & Eclipse

- ▶ Eclipse download is a compressed file, not a installable executable
- ▶ Simply, extract it, and then move the Eclipse folder in appropriate place. I put in C drive for my Windows



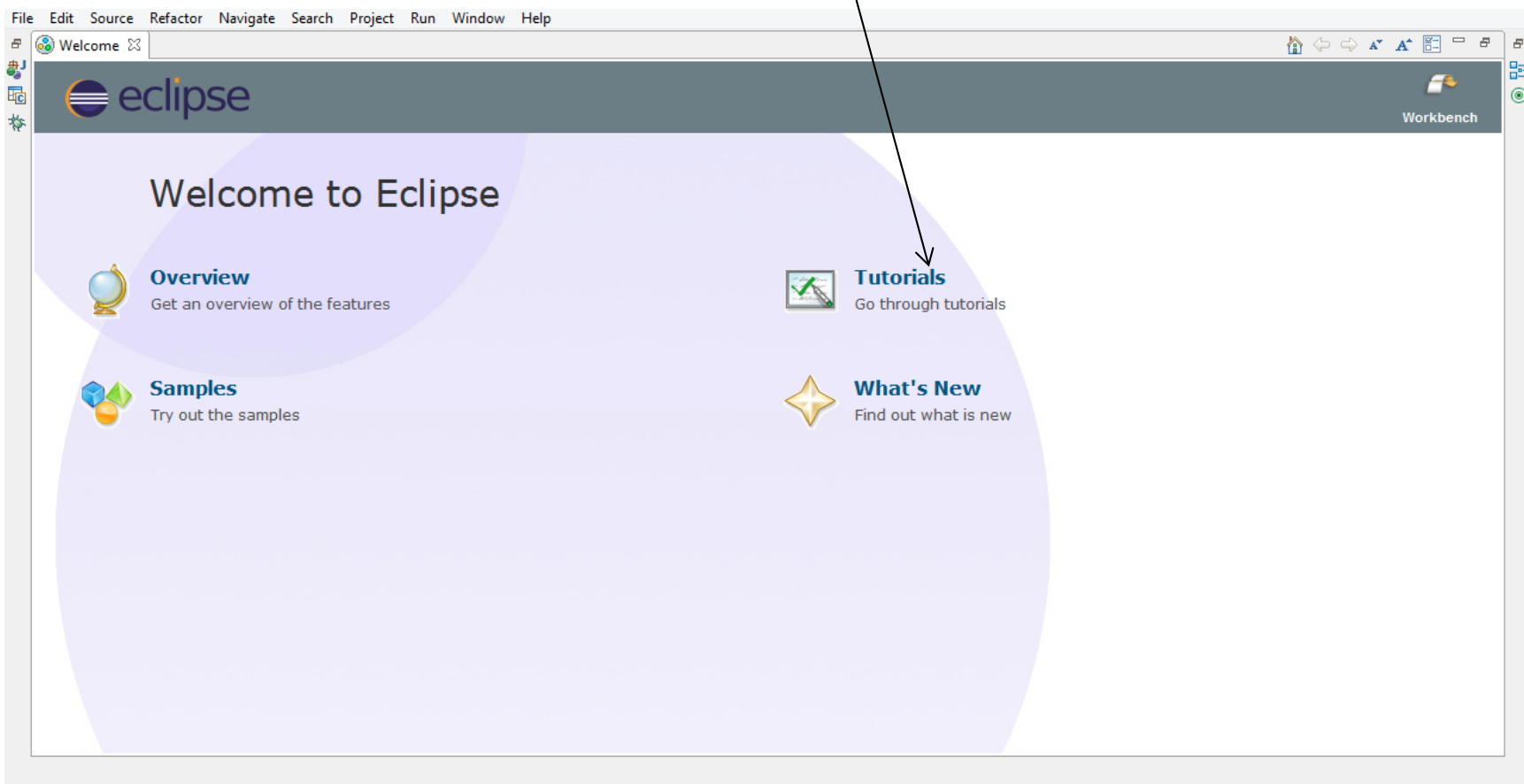
Installing JDK & Eclipse

- ▶ Your Eclipse executable is in the Ellipse folder
- ▶ You can create a shortcut for easy use
- ▶ Double click it to open it



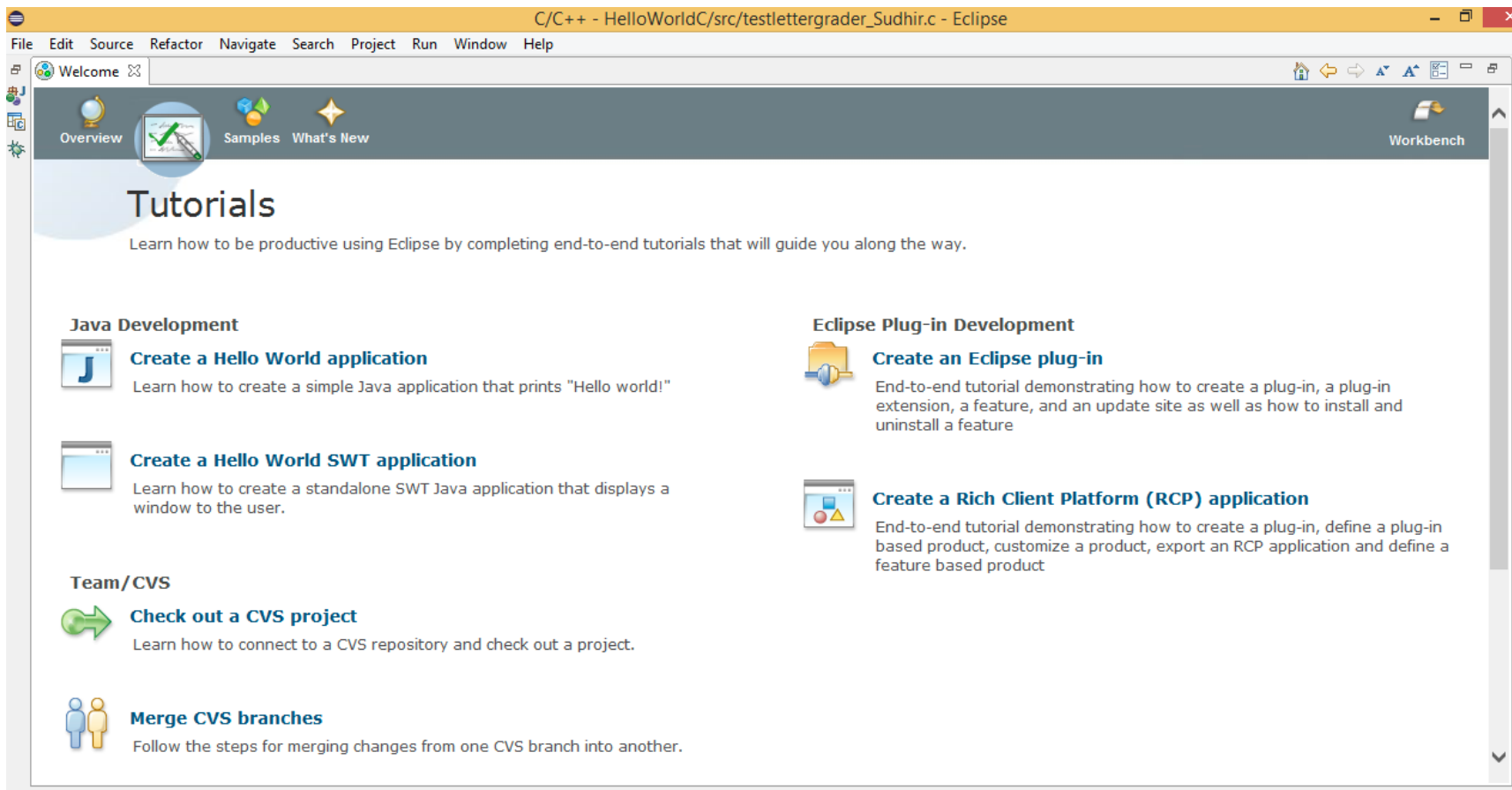
Installing JDK & Eclipse

- ▶ Your first screen should look like this.
- ▶ Click on Tutorial and go through some tutorials



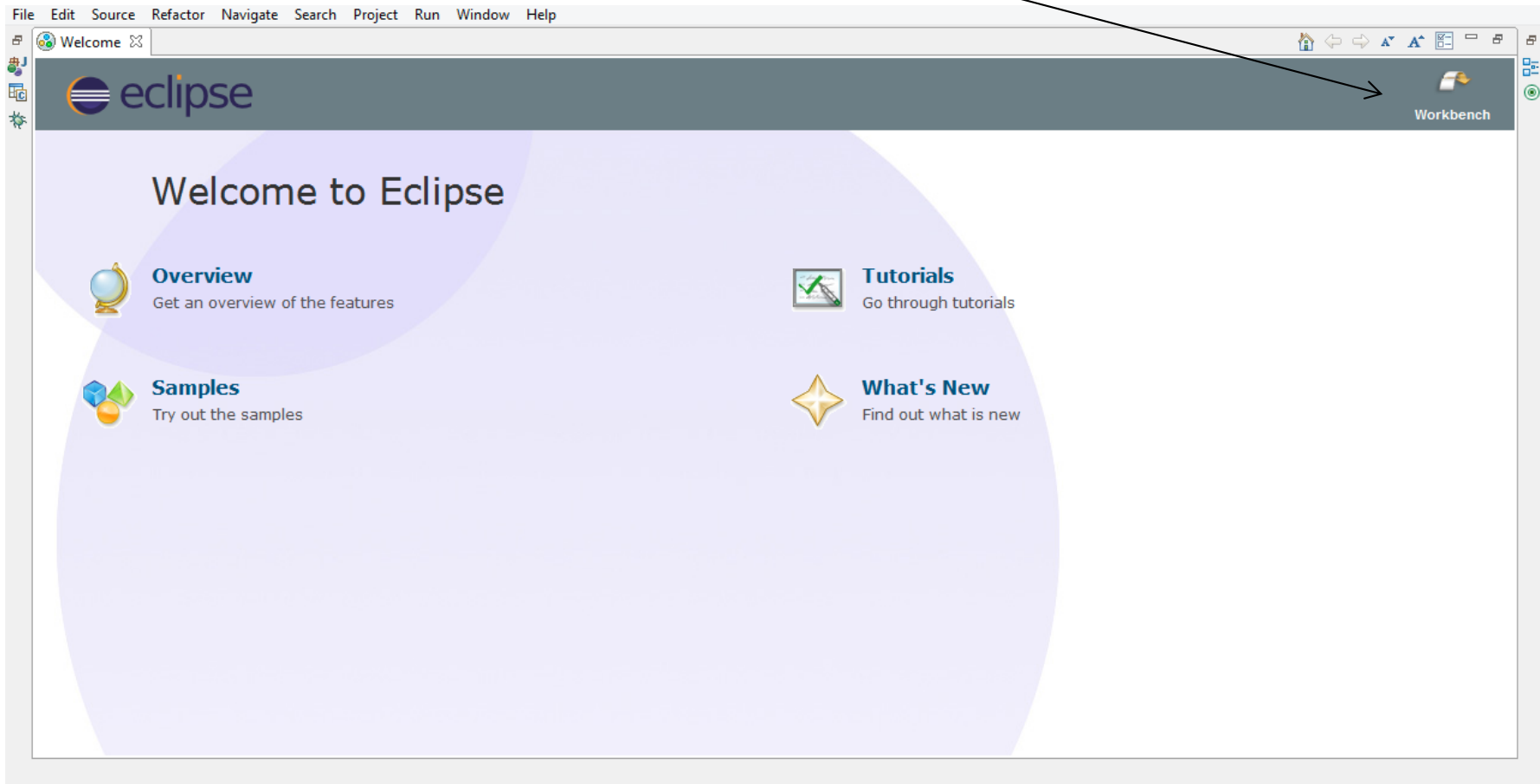
Installing JDK & Eclipse

- ▶ There are many tutorials which will help you learn Eclipse IDE



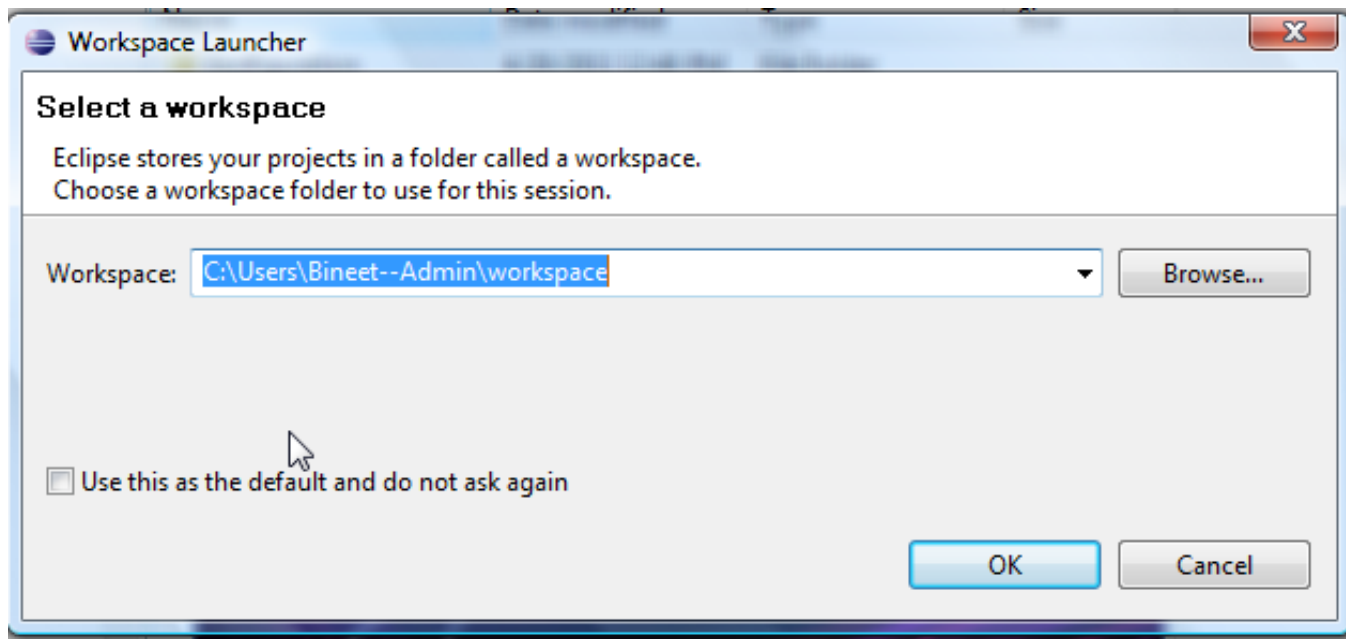
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- ▶ Your first screen should look like this.
- ▶ Click on Workbench icon to get started with Java



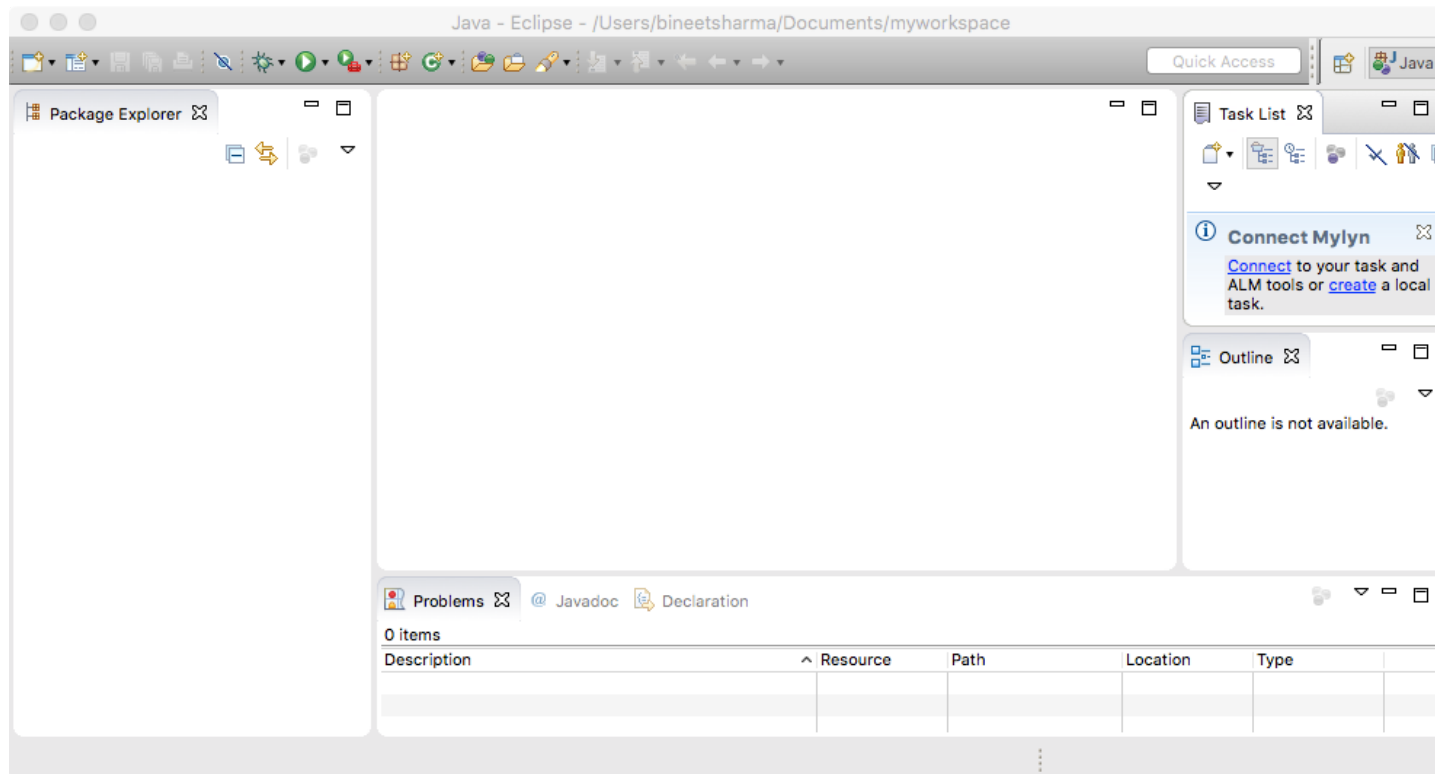
Installing JDK & Eclipse

- ▶ When you open eclipse first time, it will ask you to choose a workspace (a folder)
- ▶ Follow the direction in the dialog box to choose one
- ▶ Click the check box to suppress for next time



Installing JDK & Eclipse

- ▶ An empty workbench window will look like the following.
- ▶ Use it to develop your java code/application

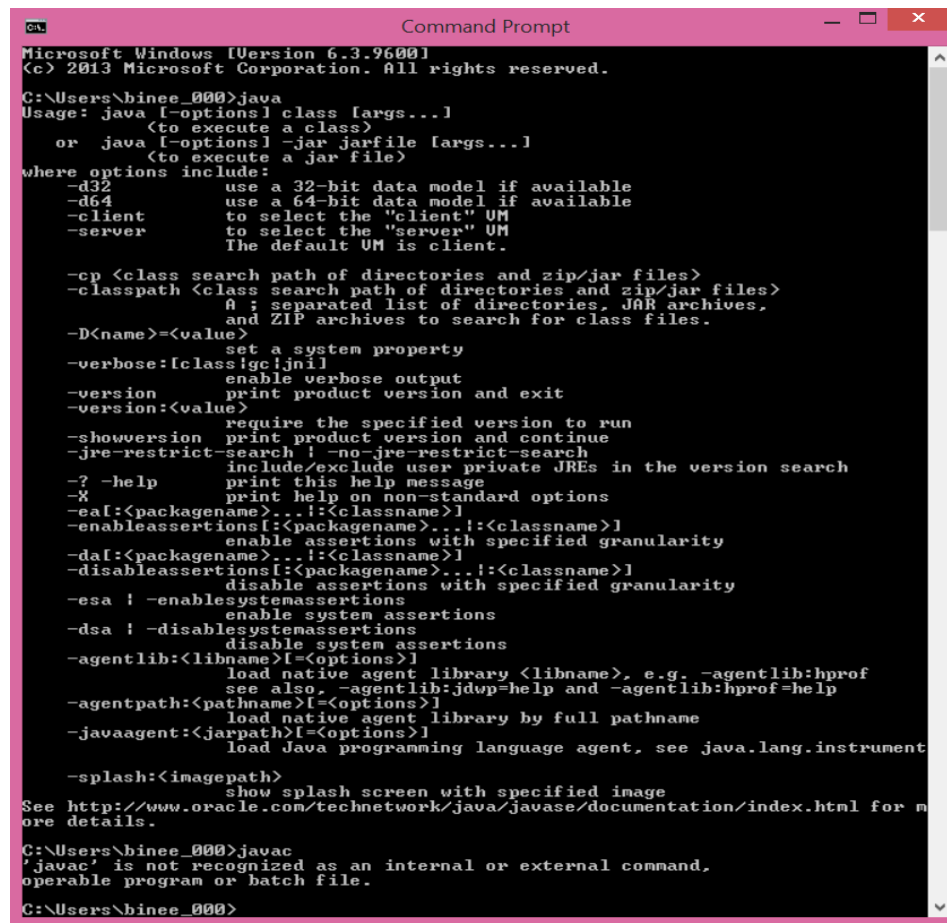


Installing JDK & Eclipse

- ▶ You can use Eclipse for all of the class work and it should work without any further issues
- ▶ However, you may like to compile and run your code directly using command window
- ▶ If you do, you may need to set the *path* and *classpath* environment variables

Installing JDK & Eclipse

- ▶ As an example, here, the *java* command worked, but, the *javac* did not work



```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\binee_000>java
Usage: java [-options] class [args...]
           (to execute a class)
 or  java [-options] -jar jarfile [args...]
           (to execute a jar file)
where options include:
    -d32          use a 32-bit data model if available
    -d64          use a 64-bit data model if available
    -client       to select the "client" VM
    -server       to select the "server" VM
                  The default VM is client.

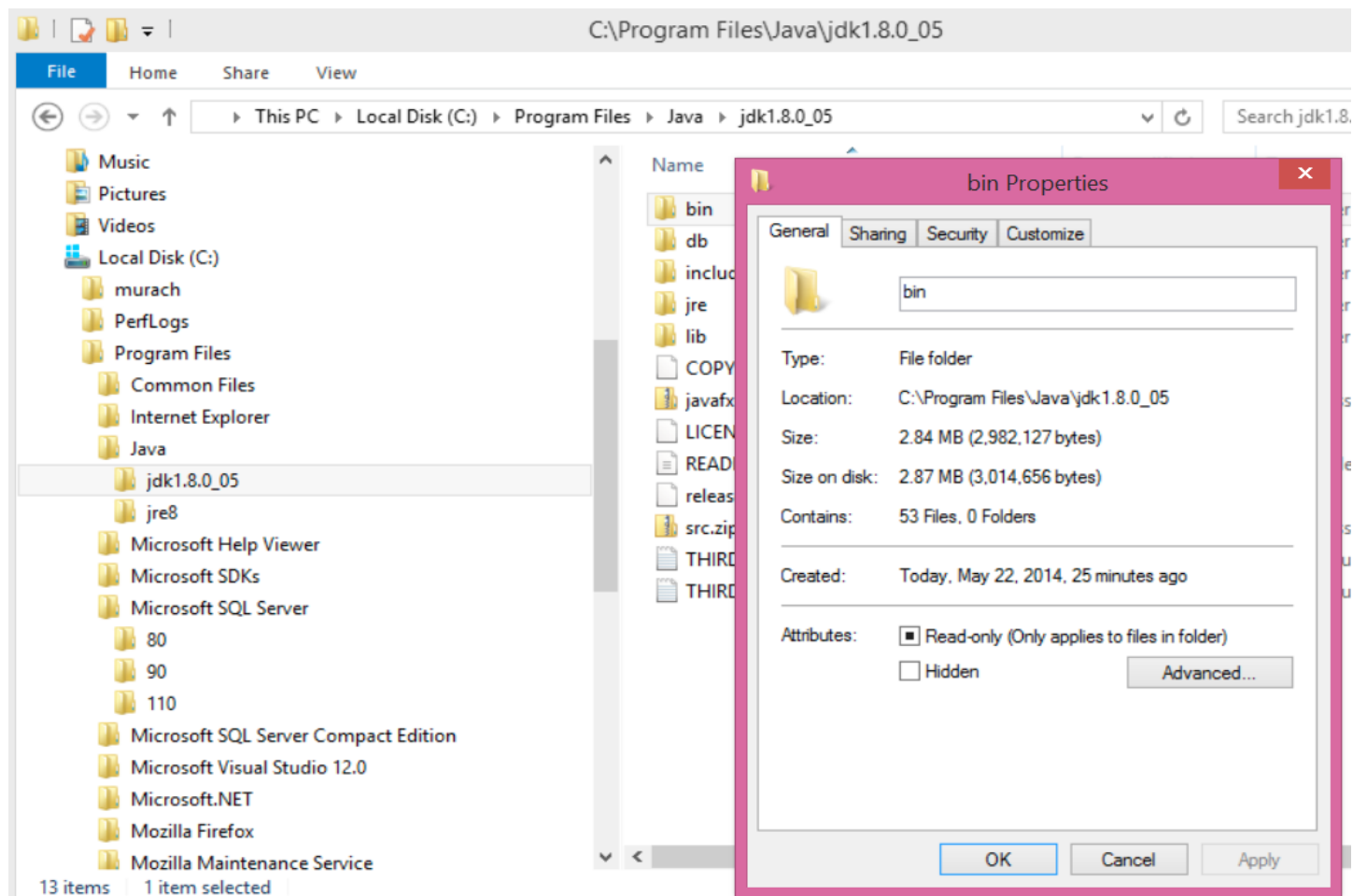
    -cp <class search path of directories and zip/jar files>
    -classpath <class search path of directories and zip/jar files>
                  A ; separated list of directories, JAR archives,
                  and ZIP archives to search for class files.
    -D<name>=<value>
                  set a system property
    -verbose[:class[:jnil])
                  enable verbose output
    -version       print product version and exit
    -version:<value>
                  require the specified version to run
    -showversion  print product version and continue
    -jre-restrict-search ! -no-jre-restrict-search
                  include/exclude user private JRES in the version search
    -? -help      print this help message
    -X            print help on non-standard options
    -ea[:<packagename>...[:<classname>]]
    -enableassertions[:<packagename>...[:<classname>]]
                  enable assertions with specified granularity
    -da[:<packagename>...[:<classname>]]
    -disableassertions[:<packagename>...[:<classname>]]
                  disable assertions with specified granularity
    -esa ! -enablesystemassertions
                  enable system assertions
    -dsa ! -disablesystemassertions
                  disable system assertions
    -agentlib:<libname>[=<options>]
                  load native agent library <libname>, e.g. -agentlib:hprof
                  see also, -agentlib:jdwp=help and -agentlib:hprof=help
    -agentpath:<pathname>[=<options>]
                  load native agent library by full pathname
    -javaagent:<jarpath>[=<options>]
                  load Java programming language agent, see java.lang.instrument
    -splash:<imagepath>
                  show splash screen with specified image
See http://www.oracle.com/technetwork/java/javase/documentation/index.html for more details.

C:\Users\binee_000>javac
'javac' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\binee_000>
```

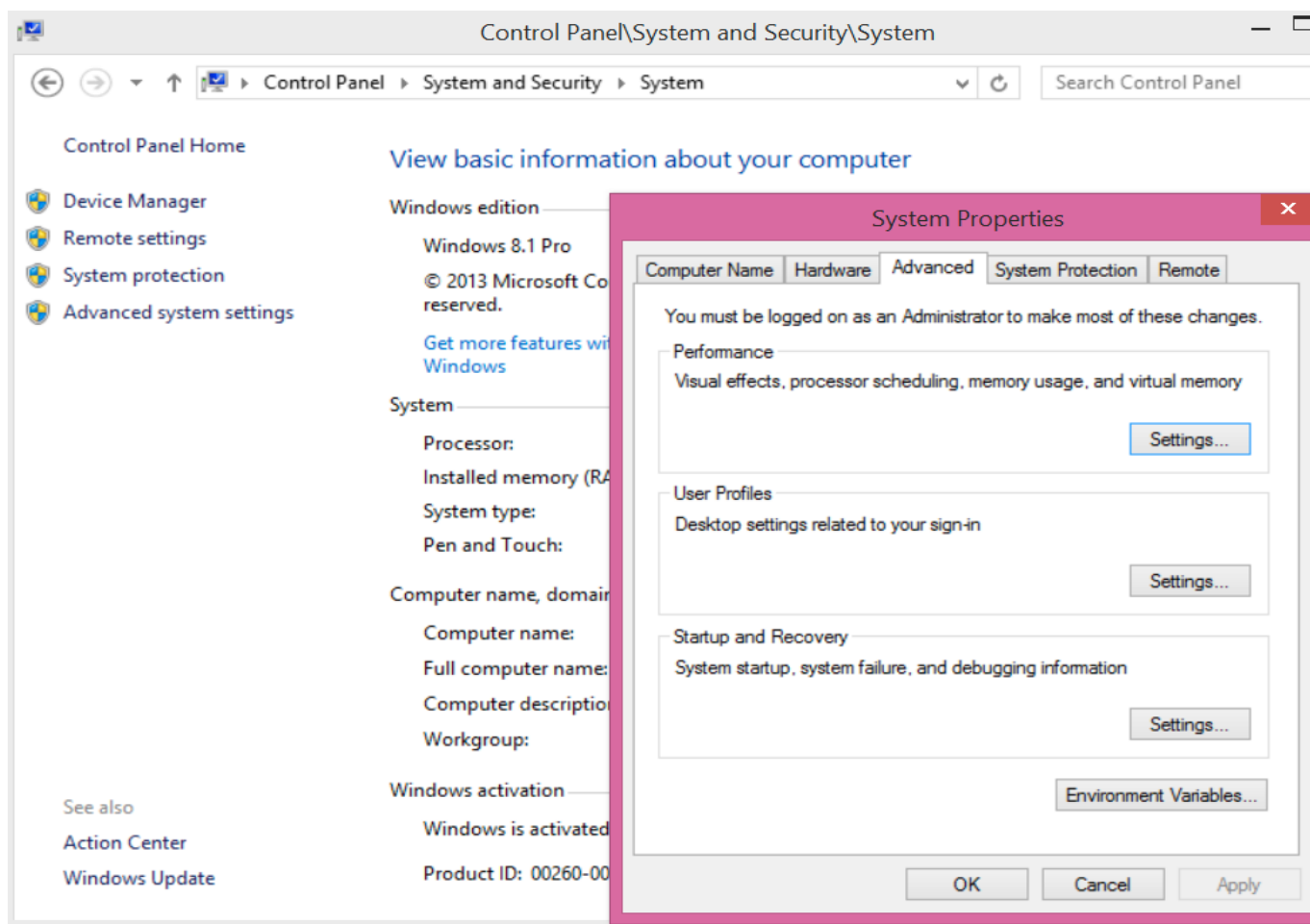
Installing JDK & Eclipse

- If that happens, find out where is your JDK's bin folder is



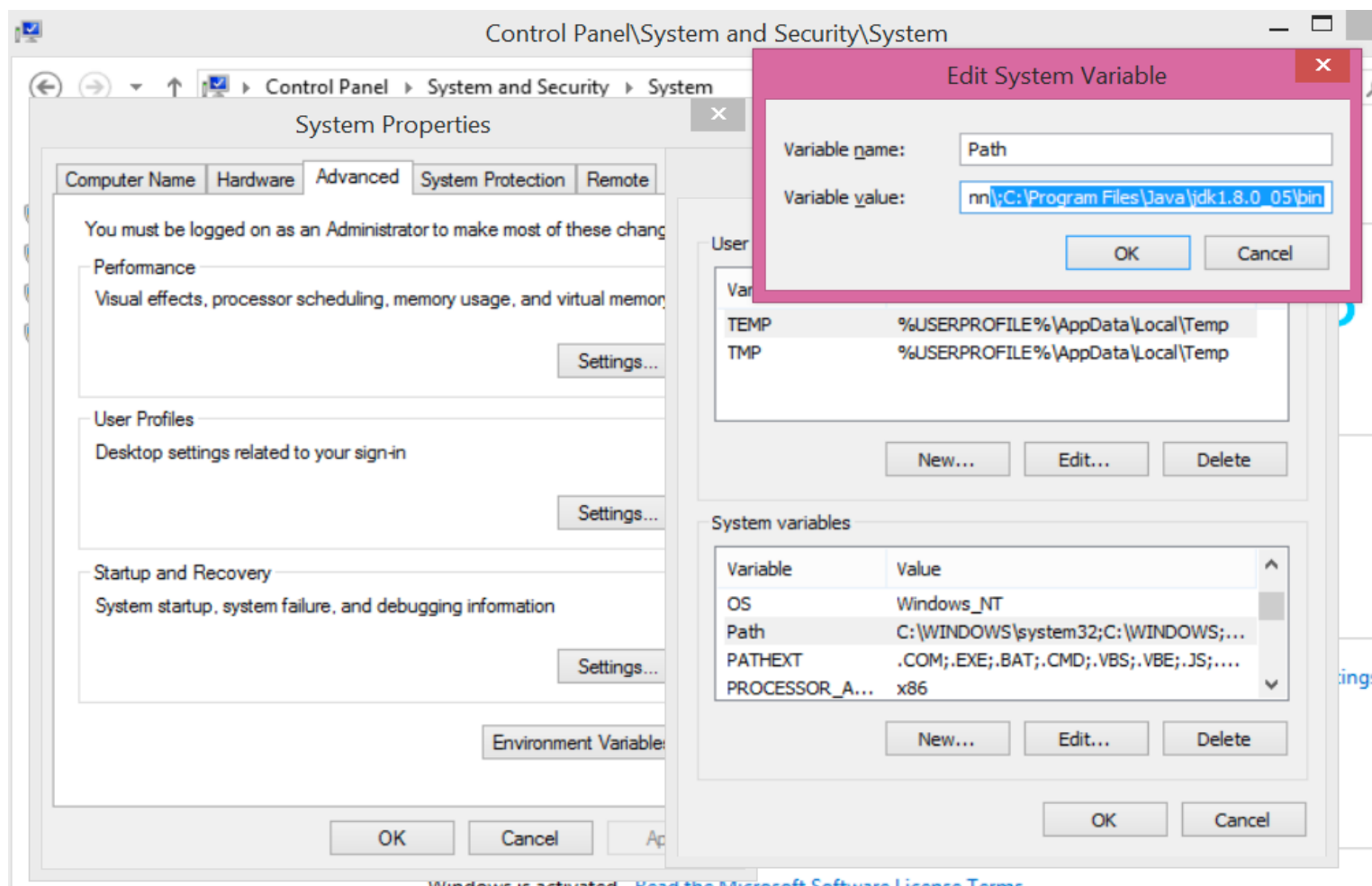
Installing JDK & Eclipse

- Open system properties, advanced->Environment Var



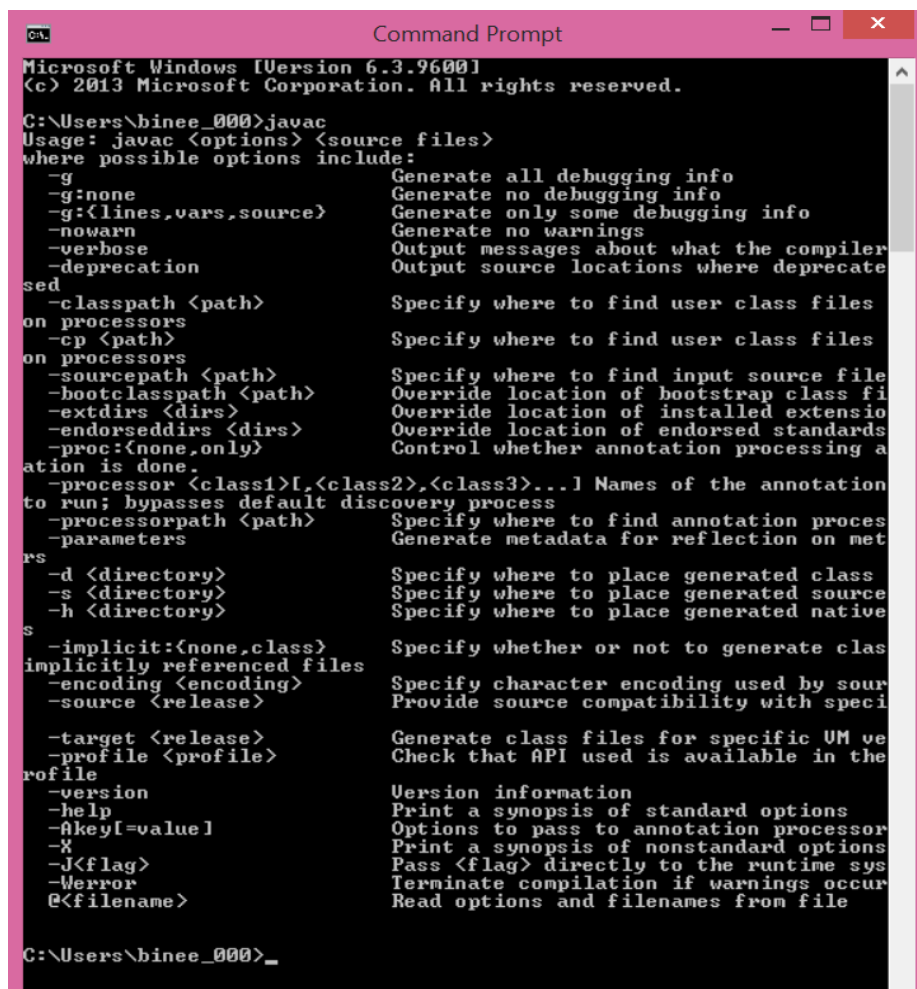
Installing JDK & Eclipse

- Add/update system variable path and append bin folder



Installing JDK & Eclipse

- Now, your *java* and *javac* both should work fine



```
CA Command Prompt
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\binee_000>javac
Usage: javac <options> <source files>
where possible options include:
  -g               Generate all debugging info
  -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
  -deprecation     Output source locations where deprecated
  -classpath <path> Specify where to find user class files
  -cp <path>       Specify where to find user class files
  -sourcepath <path> Specify where to find input source file
  -bootclasspath <path> Override location of bootstrap class file
  -extdirs <dirs>    Override location of installed extensions
  -endorseddirs <dirs> Override location of endorsed standards
  -proc:{none,only} Control whether annotation processing is
  -processor <class1>[,<class2>,<class3>...] Names of the annotation
  -processorpath <path> Specify where to find annotation processor
  -parameters      Generate metadata for reflection on method
  -d <directory>    Specify where to place generated class files
  -s <directory>    Specify where to place generated source files
  -h <directory>    Specify where to place generated native code
  -implicit:{none,class} Specify whether or not to generate class
  -encoding <encoding> Specify character encoding used by source files
  -source <release> Provide source compatibility with specified
  -target <release> Generate class files for specific JVM version
  -profile <profile> Check that API used is available in the
  -version          Version information
  -help            Print a synopsis of standard options
  -Xkey[=value]    Options to pass to annotation processor
  -X               Print a synopsis of nonstandard options
  -J<flag>         Pass <flag> directly to the runtime system
  -Werror          Terminate compilation if warnings occur
  @<filename>      Read options and filenames from file

C:\Users\binee_000>_
```

Installing JDK & Eclipse

- ▶ Installing JDK and Eclipse for other OS, like Mac or Linux system should be similar
- ▶ Happy Java Computing with Eclipse!