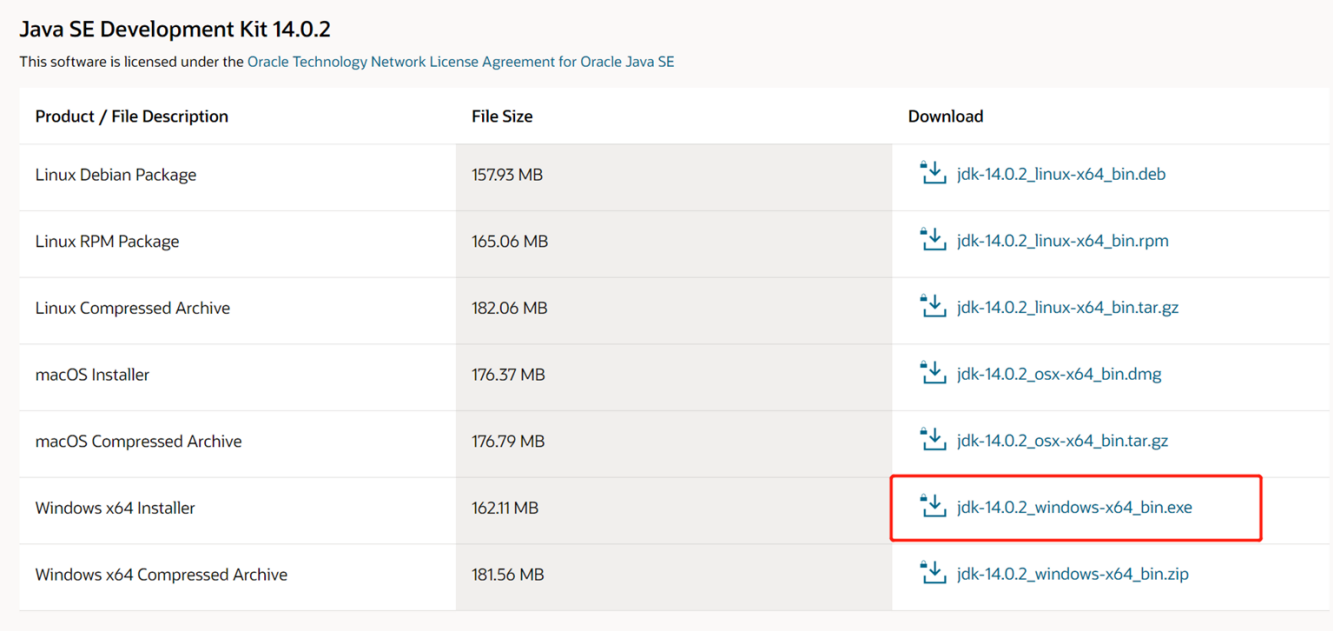
JDK and Eclipse Installation

Java JDK and IDE

- Java is a programming language. The JDK is a development environment for building applications, applets, and components using the Java programming language.
- Eclipse is the IDE of Java. IDE is short for Integrated development environment which provides comprehensive facilities to computer programmers for software development.

Install JDK

- Go to https://www.oracle.com/java/technologies/javase-jdk14-downloads.html, and the windows installer to download.



Java SE Development Kit 14.0.2

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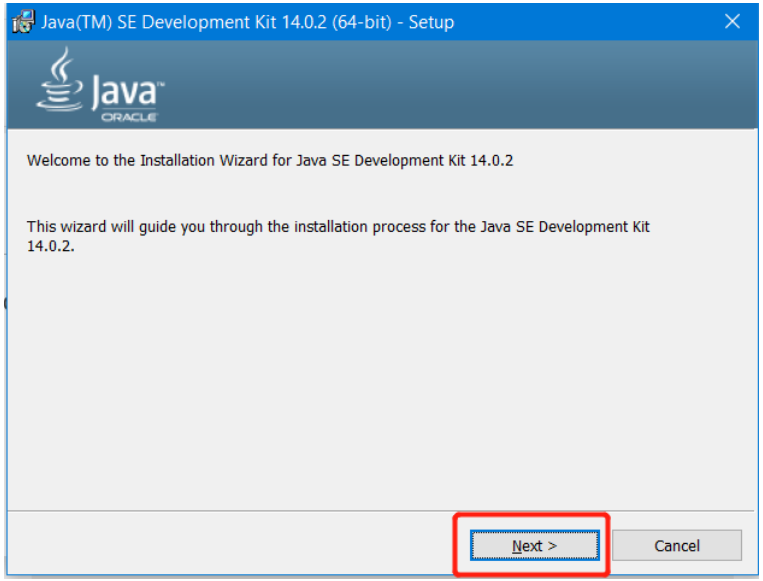
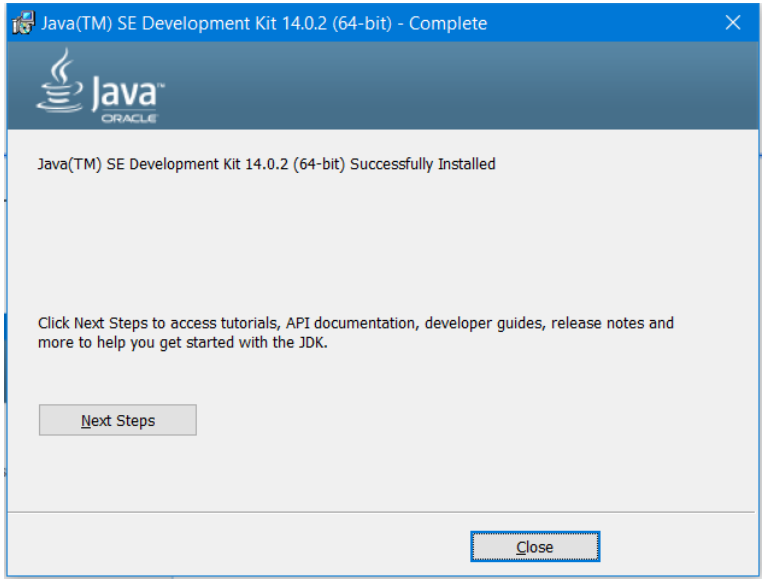
Product / File Description	File Size	Download
Linux Debian Package	157.93 MB	jdk-14.0.2_linux-x64_bin.deb
Linux RPM Package	165.06 MB	jdk-14.0.2_linux-x64_bin.rpm
Linux Compressed Archive	182.06 MB	jdk-14.0.2_linux-x64_bin.tar.gz
macOS Installer	176.37 MB	jdk-14.0.2_osx-x64_bin.dmg
macOS Compressed Archive	176.79 MB	jdk-14.0.2_osx-x64_bin.tar.gz
Windows x64 Installer	162.11 MB	jdk-14.0.2_windows-x64_bin.exe
Windows x64 Compressed Archive	181.56 MB	jdk-14.0.2_windows-x64_bin.zip

Install JDK

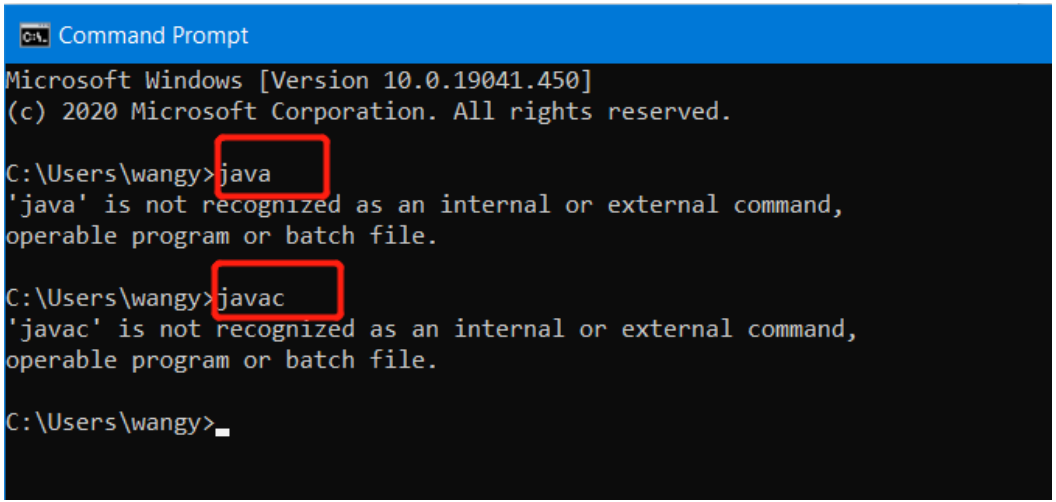
- Click the .exe file you just downloaded and following the instructions to install the JDK, you should get the following result.





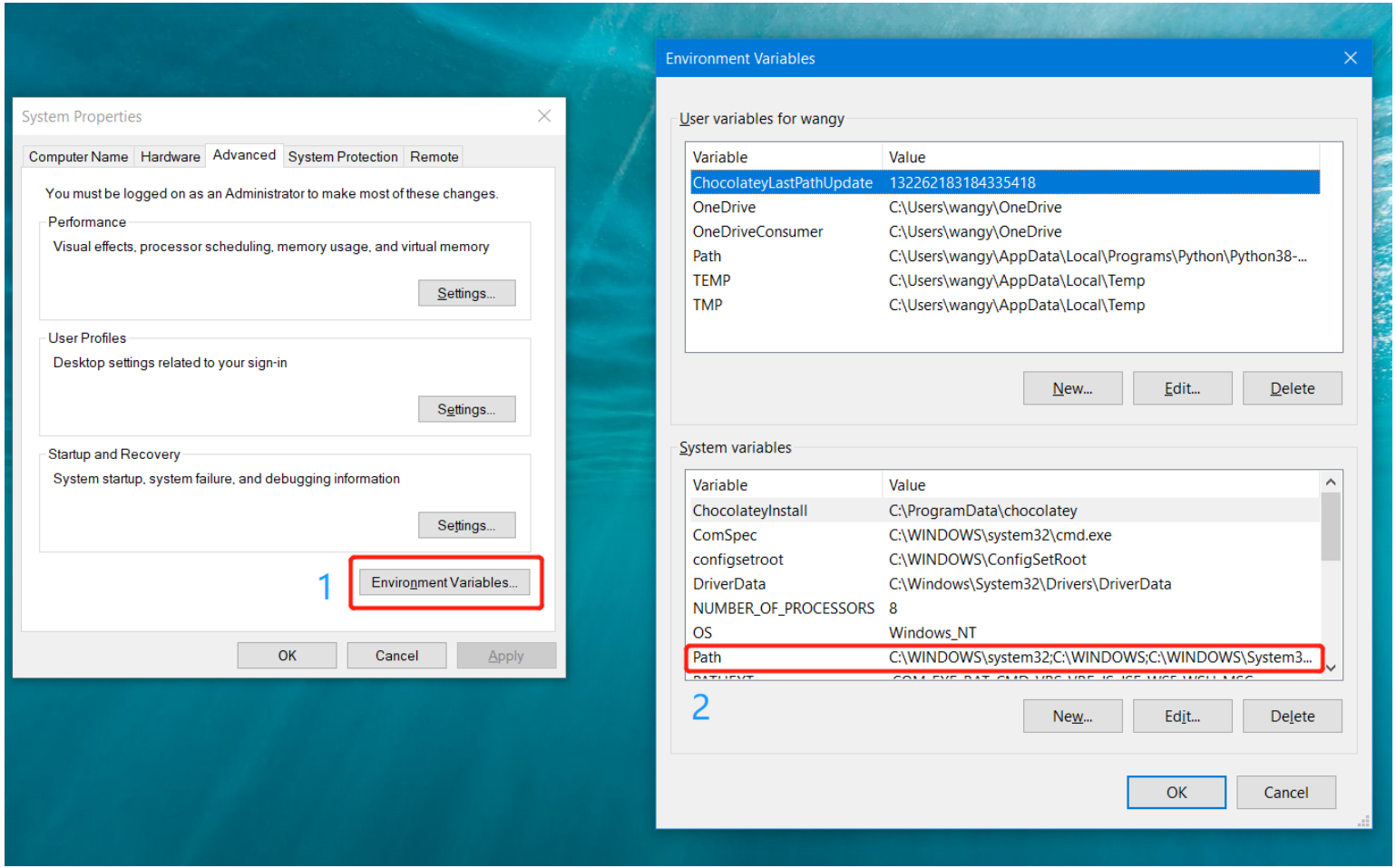
Set the system path for the java

- After successfully installed the JDK, it is highly recommended to set the system path for java
- Usually if you have not configured the environment variables before, when you type java/javac in command prompt, it looks like this

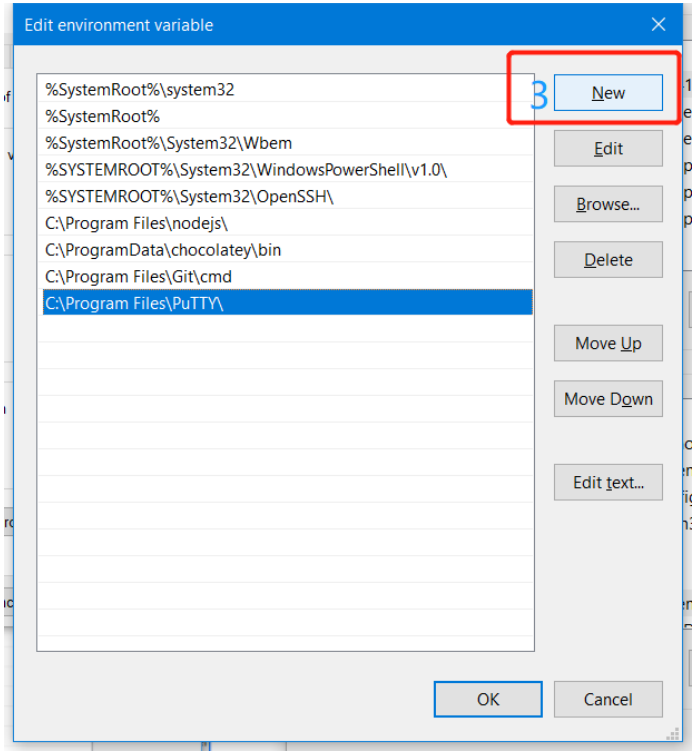


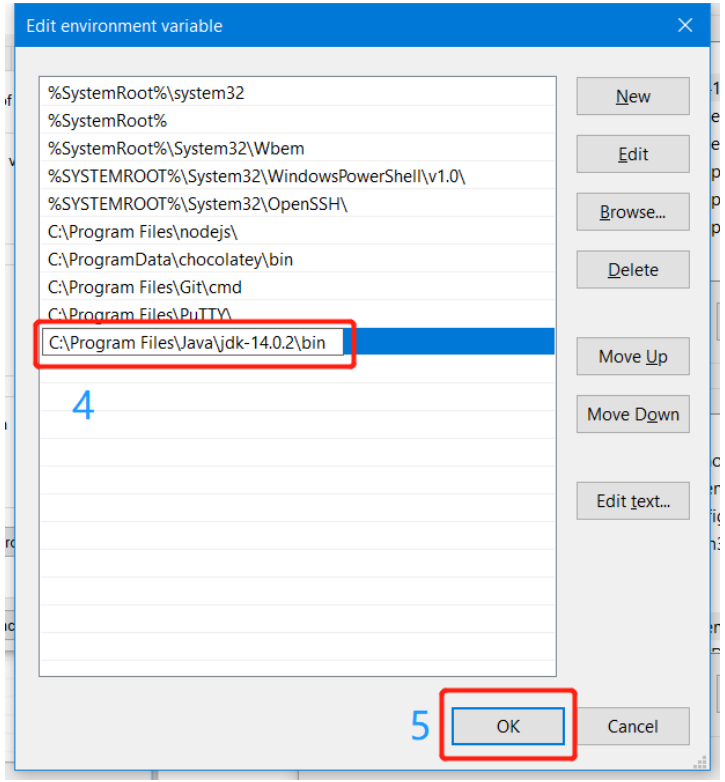
Set the system path for the java

- In the windows start menu, type `**environment variables**`, you should get the following dialog.


System Properties
Computer Name
Hardware
Advanced
System Protection
Remote
You must be logged on as an Administrator to make most of these changes.
Performance
Visual effects, processor scheduling, memory usage, and virtual memory
Settings...
User Profiles
Desktop settings related to your sign-in
Settings...
Startup and Recovery
System startup, system failure, and debugging information
Settings...
1
Environment Variables...
OK
Cancel
Apply
Environment Variables
User variables for wangy
Variable
Value
ChocolateyLastPathUpdate
132262183184335418
OneDrive
C:\Users\wangy\OneDrive
OneDriveConsumer
C:\Users\wangy\OneDrive
Path
C:\Users\wangy\AppData\Local\Programs\Python\Python38-...
TEMP
C:\Users\wangy\AppData\Local\Temp
TMP
C:\Users\wangy\AppData\Local\Temp
New...
Edit...
Delete
System variables
Variable
Value
ChocolateyInstall
C:\ProgramData\chocolatey
ComSpec
C:\WINDOWS\system32\cmd.exe
configsetroot
C:\WINDOWS\ConfigSetRoot
DriverData
C:\Windows\System32\Drivers\DriverData
NUMBER_OF_PROCESSORS
8
OS
Windows_NT
Path
C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System3...
2
New...
Edit...
Delete
OK
Cancel

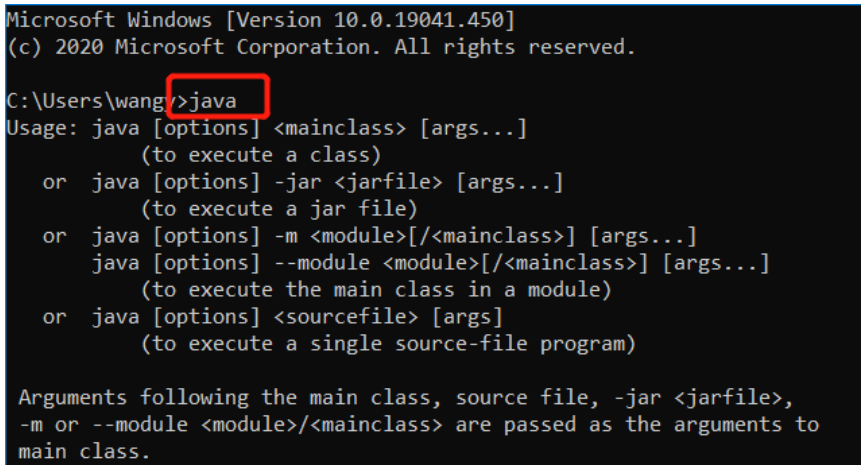
Type ‘C:\Program Files\Java\jdk-14.0.2\bin’ in the new section and hit OK
Note: In the Step 4, it depends on where you installed your JDK, if the path is default when you installed the JDK, it should be the same as me.

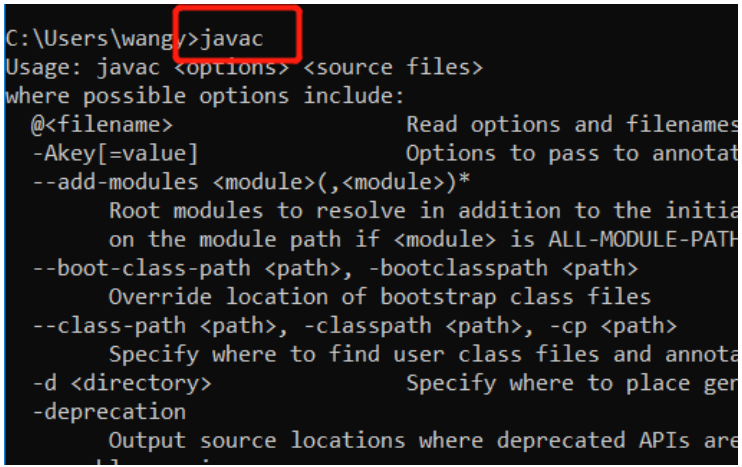




Test your JDK

- Now you should have global variable name ‘java’ as the ‘global environment variables’. To test it, open your **‘Command Prompt**’ and type `java` or `javac`, you should get the following





Your first java code

- Create a new folder under your desktop called ‘Hello’
- Create a new file ‘HelloWorld.java’ under the newly created folder
- Open this ‘HelloWorld.java’ by text for example `Notepad` which is already installed in windows.
- Copy the following code:

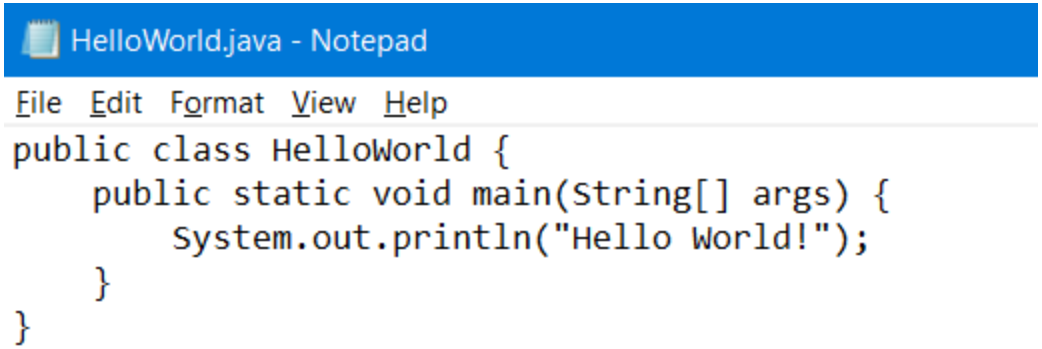
```
public class HelloWorld {

    public static void main(String[] args) {

        System.out.println("Hello World!");

    }

}
```


HelloWorld.java - Notepad
File Edit Format View Help
public class HelloWorld {
public static void main(String[] args) {
System.out.println("Hello World!");
}
}

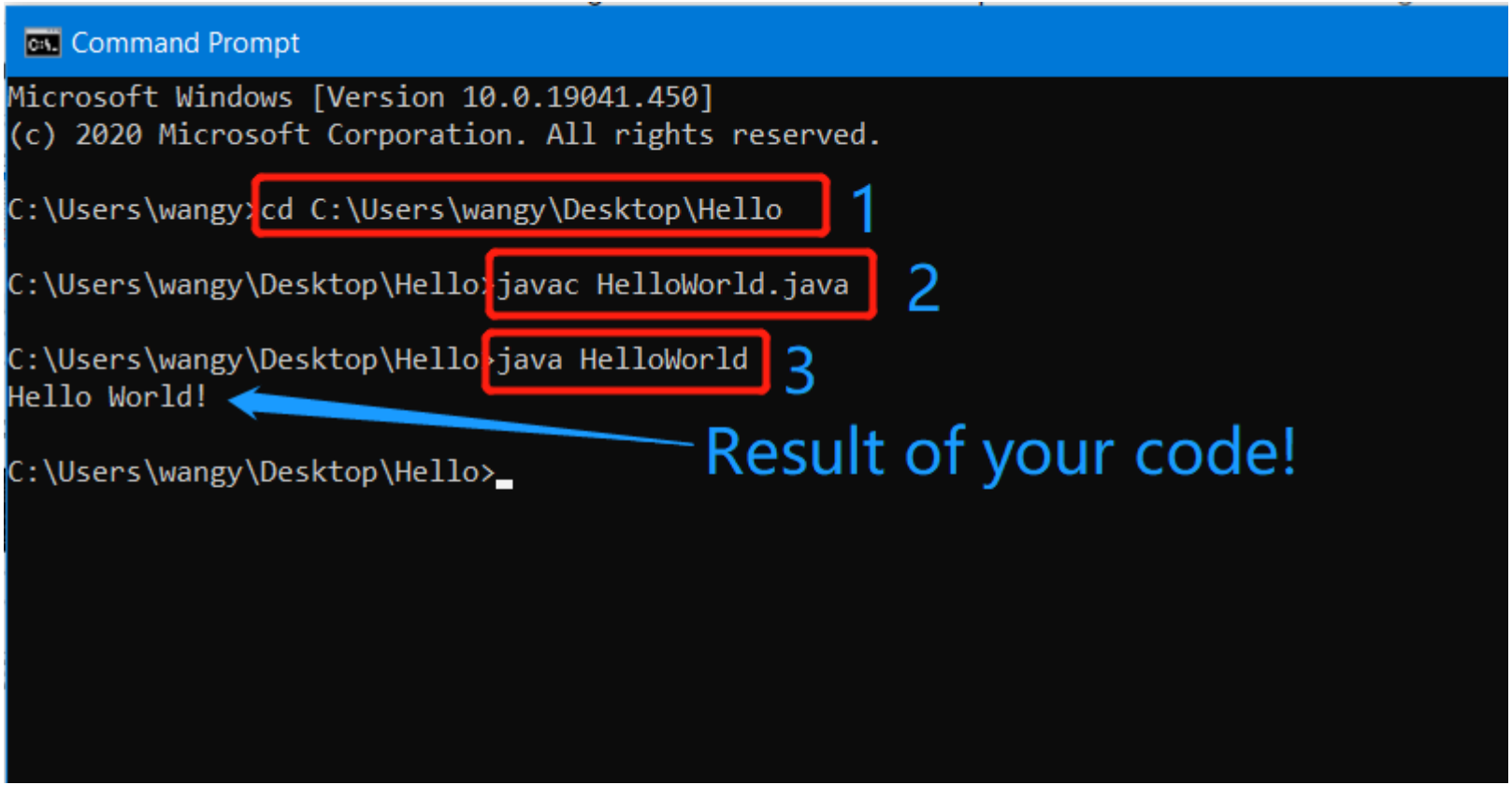
Compile your HelloWorld.java

- CD(Change Directory) your Command Prompt into your new foler `Hello`

  Note: My path is like this `C:\Users\wangy\Desktop\Hello`, I assume the only difference between my path and your path is the user name. So the general case of the path (if you create the folder under Desktop) is like this

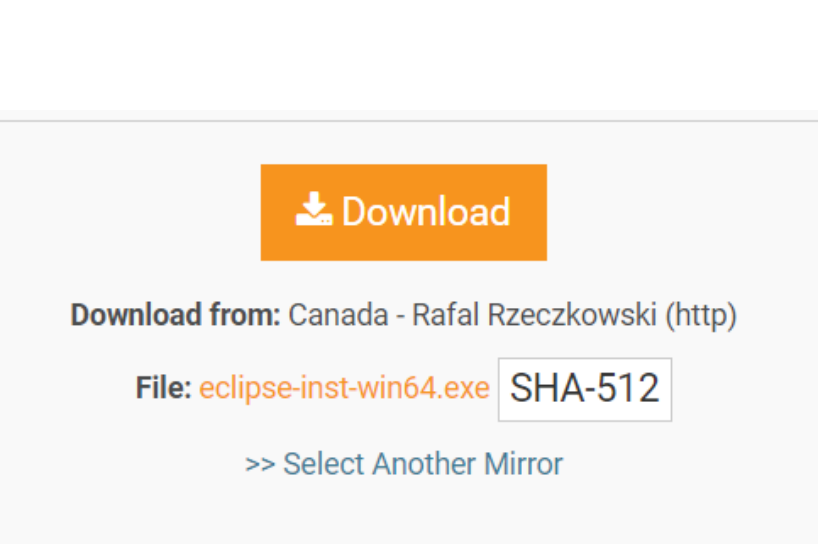
  C:\Users\your_user_name\Desktop\Hello

- Type `javac HelloWorld.java` (javac means ‘java compile’)
- Type `java HelloWorld` (run the compiled java code)
- You can see the result of your first java code!!!


Command Prompt
Microsoft Windows [Version 10.0.19041.450]
(c) 2020 Microsoft Corporation. All rights reserved.
C:\Users\wangy>cd C:\Users\wangy\Desktop\Hello
1
C:\Users\wangy\Desktop\Hello>javac HelloWorld.java
2
C:\Users\wangy\Desktop\Hello>java HelloWorld
3
Hello World!
Result of your code!
C:\Users\wangy\Desktop\Hello>

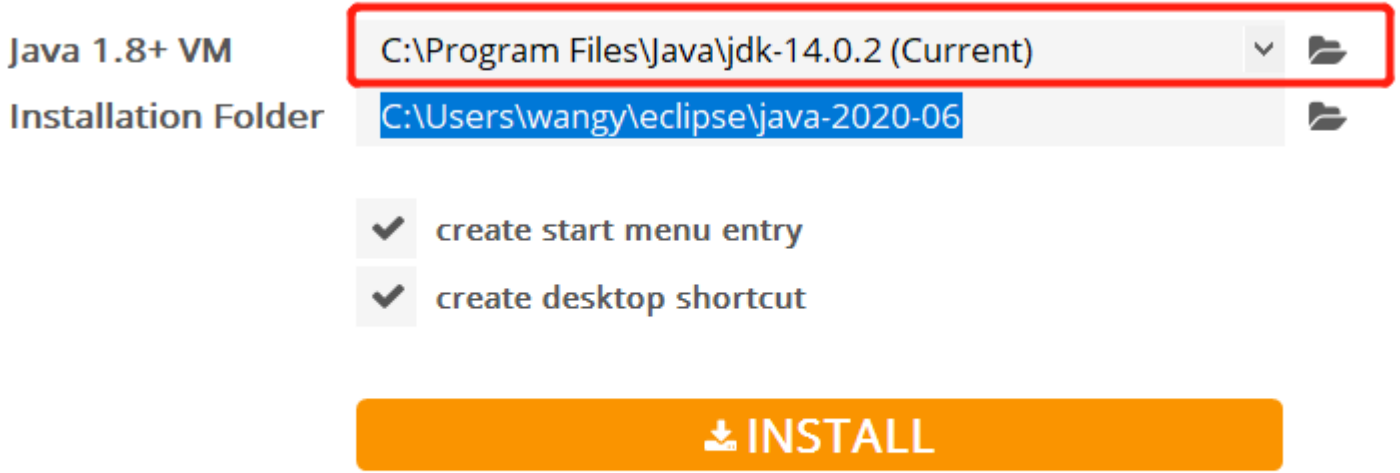
Installation of Eclipse

- Go to https://www.eclipse.org/downloads/download.php?file=/oomph/epp/2020-06/R/eclipse-inst-win64.exe and download Eclipse and install.
- Click Eclipse IDE for JAVA DEVELOPERS when installing Eclipse



Usually Eclipse will find your installed JDK automatically. Like the following.

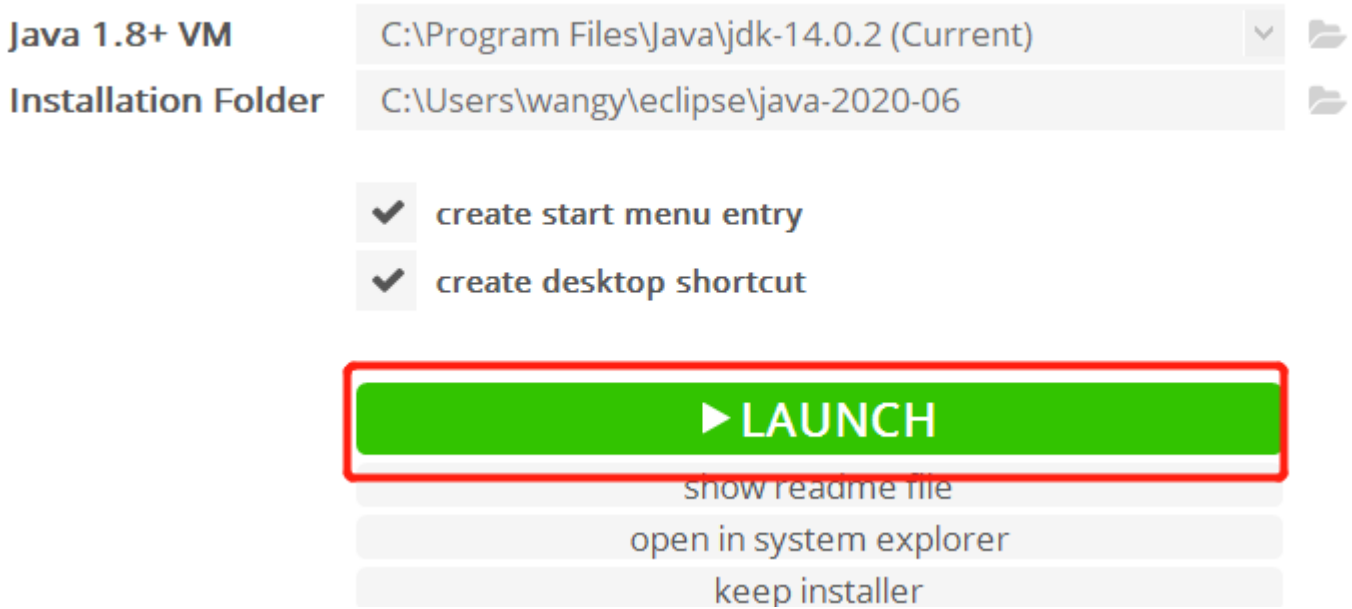
If Eclipse did not find it correctly, you have to do it manually by click the ‘FOLDER’ icon.



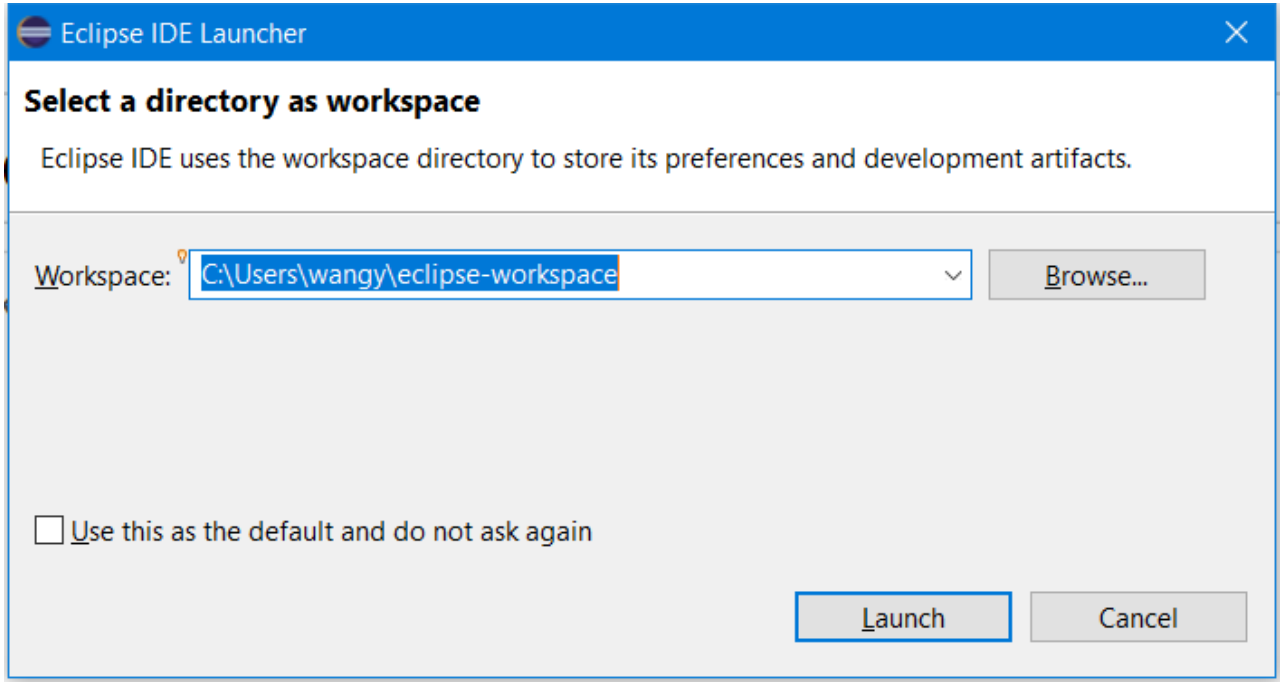
Click INSTALL to continue if everything looks fine.

Launch Eclipse

After successfully installed your Eclipse, you should see this and let's LAUNCH it!

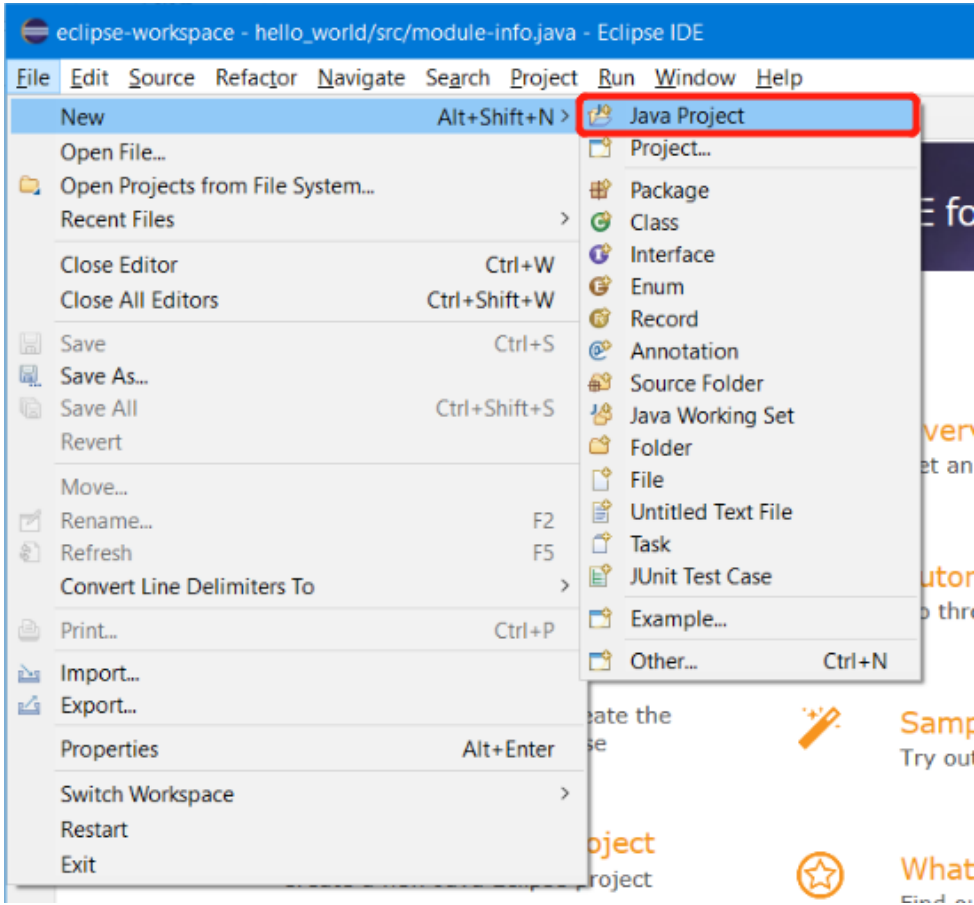


Eclipse may asks you to set workspace. Leave it as default.



Create your first Project

File => New => Java Project



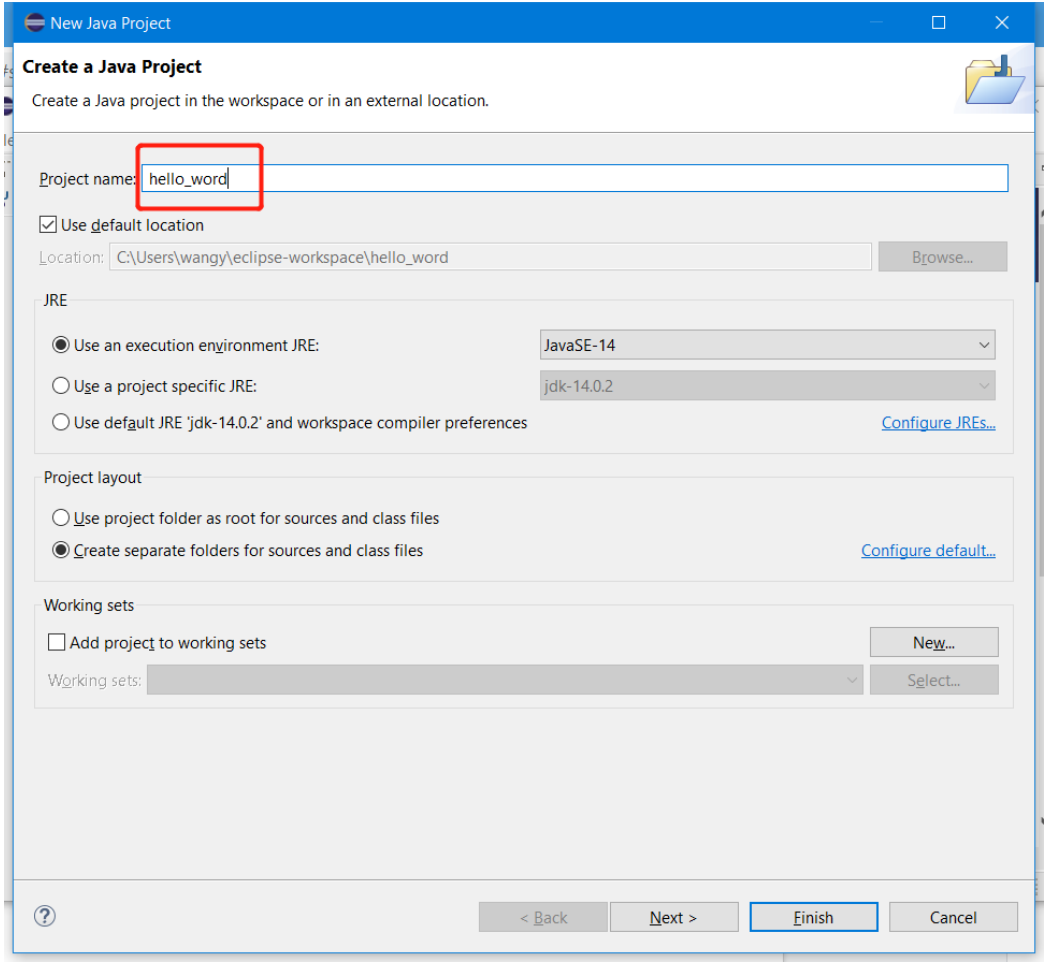
Create your hello_world

Project

Click finish and you have

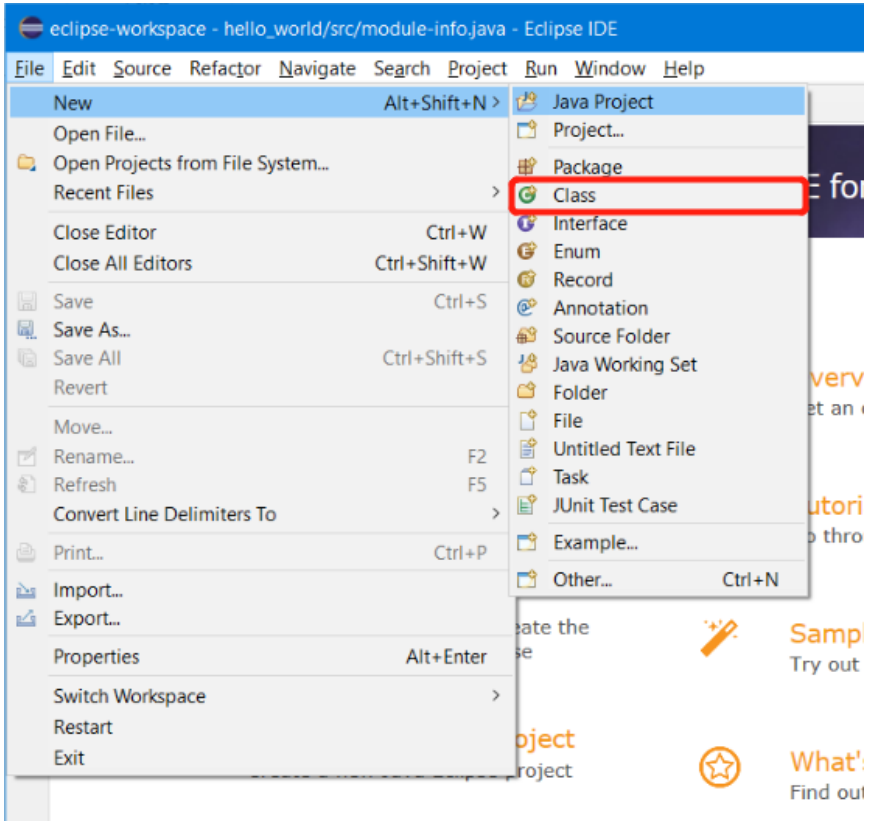
already created a java project

Called `hello_world`



Create class

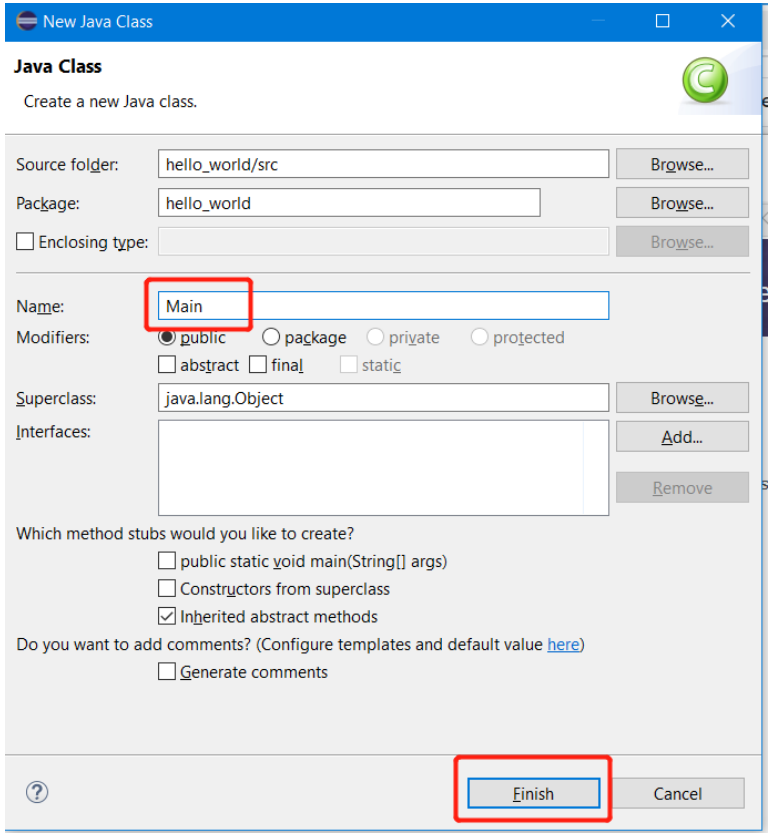
File => New => Class



Create class

You can call your created class

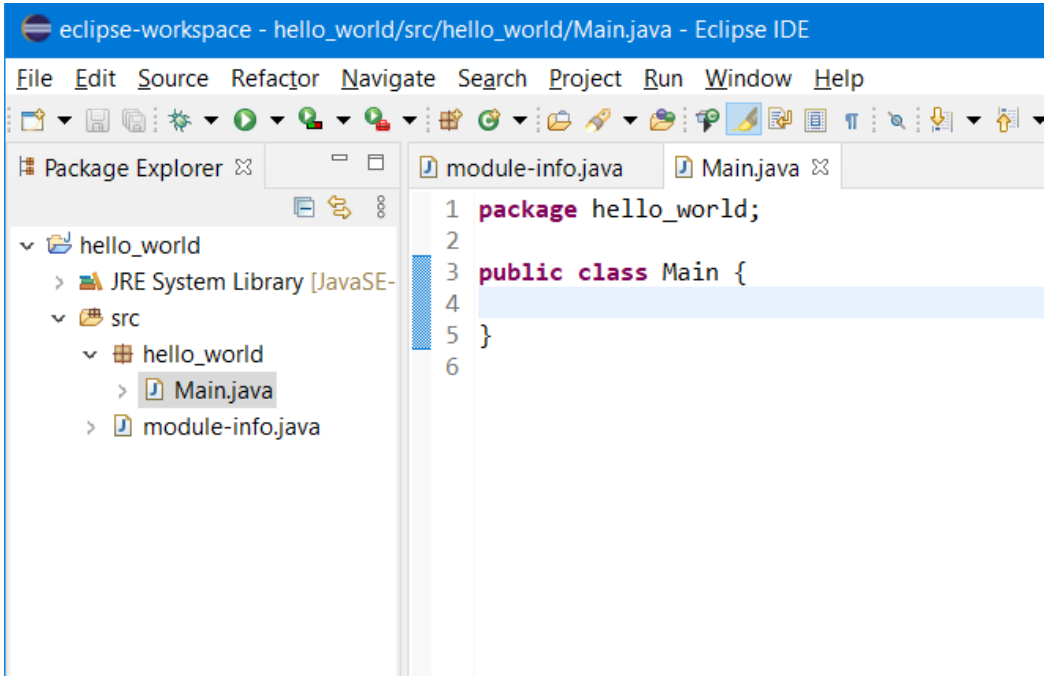
`Main` and click finish

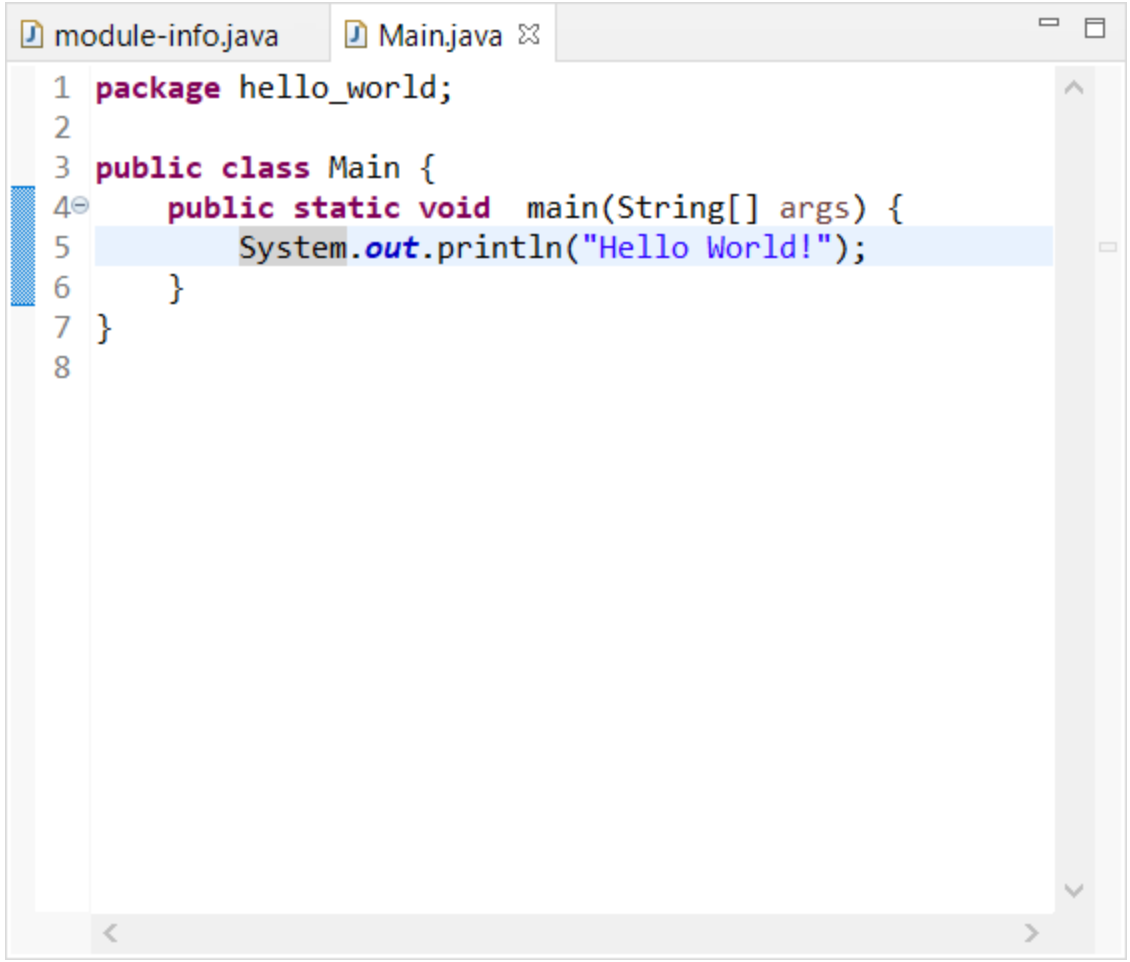


Type in your own code

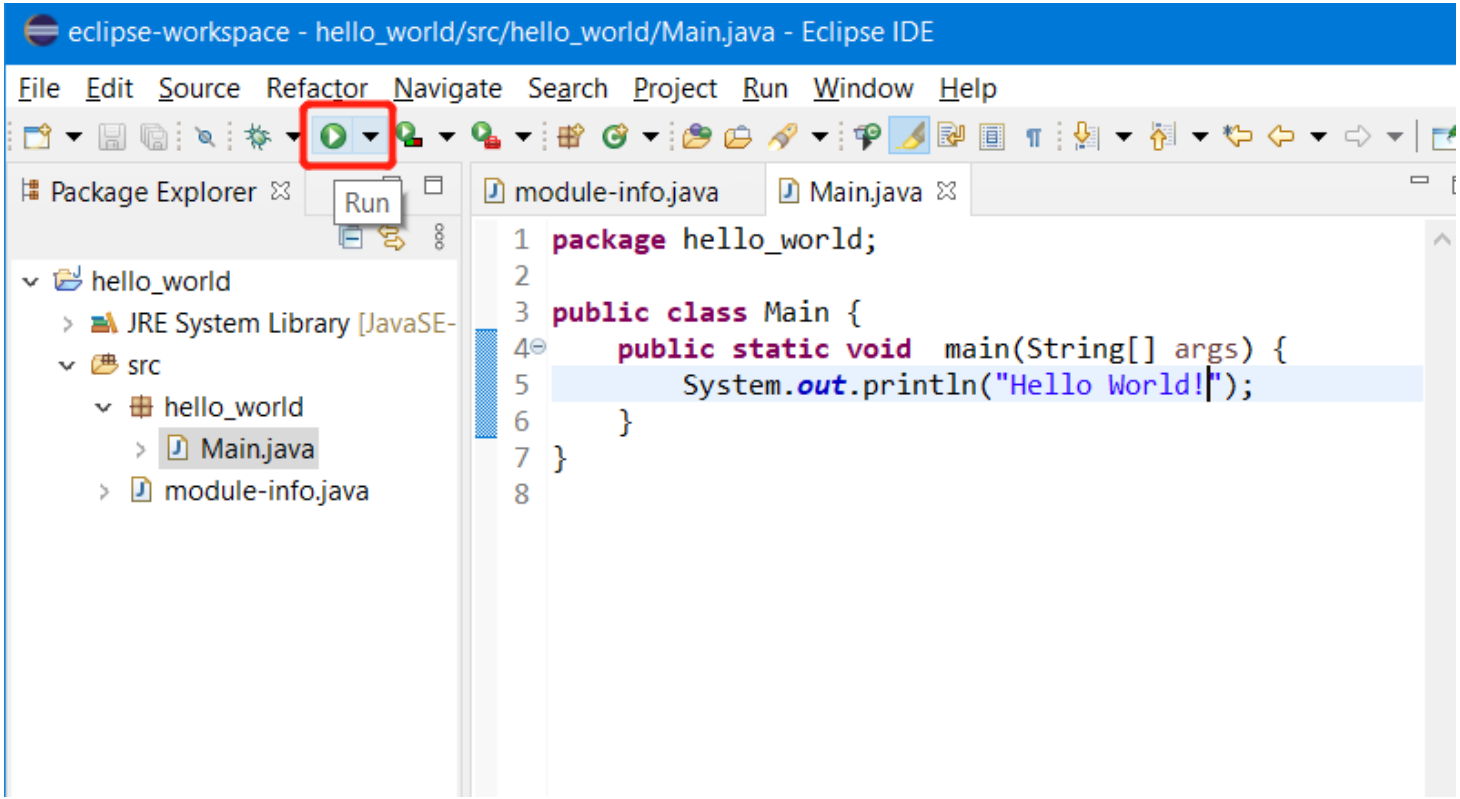
You can type in your code

In the Main class

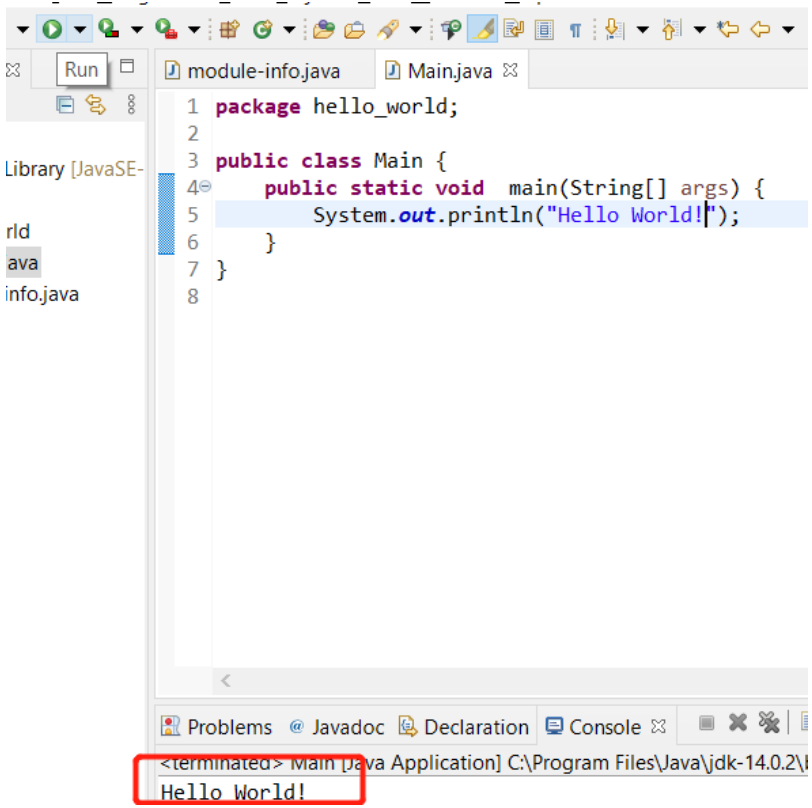



module-info.java
Main.java
1 package hello_world;
2
3 public class Main {
4 public static void main(String[] args) {
5 System.out.println("Hello World!");
6 }
7 }
8

Compile and run



DONE!


Run
module-info.java
Main.java
Library [JavaSE-
rld
ava
info.java
1 package hello_world;
2
3 public class Main {
4 public static void main(String[] args) {
5 System.out.println("Hello World!");
6 }
7 }
8
Problems
Javadoc
Declaration
Console
<terminated> Main [Java Application] C:\Program Files\Java\jdk-14.0.2\
Hello World!