**Starting to run Java**

**(1) Checking JRE Version and Installation**

1. Use the Website: <http://www.java.com/en/download/installed.jsp>

You can follow the site to install the newest version of JRE (Java Runtime Environment).



After installing a new version:



2. Command line: java –version

For example:

C:\Users\Yue>java -version

java version "1.6.0\_06"

Java(TM) SE Runtime Environment (build 1.6.0\_06-b02)

Java HotSpot(TM) Client VM (build 10.0-b22, mixed mode, sharing)

After installing a newer version:

C:\Users\Yue>java -version

java version "1.7.0\_10"

Java(TM) SE Runtime Environment (build 1.7.0\_10-b18)

Java HotSpot(TM) 64-Bit Server VM (build 23.6-b04, mixed mode)

**(2) Installing JDK SE**

To install JDK for Java development, go to <http://java.sun.com/javase/downloads/index.jsp>.

Download and install the latest stable JDK SE.

One potential problem in installation may be some applications running in Java is executing. In this case, close the application and re-install.

Another issue is the correct settings of the system variables of PATH, CLASSPATH and JAVA\_HOME. Note that not every application uses these system variables. Use the set command to see its value, for example, to see the value of JAVA\_HOME:

C:\Yue>set JAVA\_HOME

JAVA\_HOME=C:\Progra~1\Java\jdk1.7.0\_10

You can set JAVA\_HOME using the control panel of Windows.

Example of JAVA\_HOME value C:\Program Files\Java\jdk1.7.0\_10

See <http://docs.oracle.com/javase/tutorial/essential/environment/paths.html> for further information.

Also see the common problem section (<http://java.sun.com/docs/books/tutorial/getStarted/problems/index.html>) of the Sun’s Java tutorial (<http://java.sun.com/docs/books/tutorial/index.html>).

**(3) Command Line Execution of Java Programs**

To compile and Java program:

javac Mastermind.java

To run a Java program:

java Mastermind

The Sun’s Java SE documentation page (<http://java.sun.com/javase/reference/api.jsp>) has information on :

* JDK: <http://docs.oracle.com/javase/7/docs/>
* Core API: <http://docs.oracle.com/javase/7/docs/api/>
* Java’s tools : <http://java.sun.com/javase/7/docs/technotes/tools/index.html#basic>
* Java compilation options: <http://docs.oracle.com/javase/7/docs/technotes/guides/javac/index.html>
* Java runtime options: <http://docs.oracle.com/javase/7/docs/technotes/tools/windows/java.html>

**(4) Useful Resources for Java Beginners**

* Java Developer Network: <http://java.sun.com/developer/onlineTraining/index.html>
* Java SE tutorial: <http://docs.oracle.com/javase/tutorial/>

**(5) Eclipse**

Installation :

* Download : <http://eclipse.org/downloads/>
* Compare different Eclipse packages: <http://www.eclipse.org/downloads/compare.php> (The basic Java package is likely what you will need.)