Practical -1
Installation of JDK and IDE

•   Installation of JDK

Step 1 : To install the latest version of Java, go to the
https://www.oracle.com/java/technologies/downloads/

Step 2 : Download Installer

Step 3 : After you download the msi file from the Java download site, it should be in your Downloads folder. Double click on that file to run it and install Java.

Name	Date modified	Type	Size
∨ Today (1)			
jdk-17_windows-x64_bin.msi	2/20/2022 8:45 AM	Windows Installer ...	154,948 KB
∨ Last week (1)			
putty-64bit-0.76-installer.msi	2/17/2022 5:11 PM	Windows Installer ...	3,011 KB
∨ Earlier this month (4)			

Step 4 : Accept all the defaults by clicking the **Next** button each time.

Step 5 : set the location of jdk installation
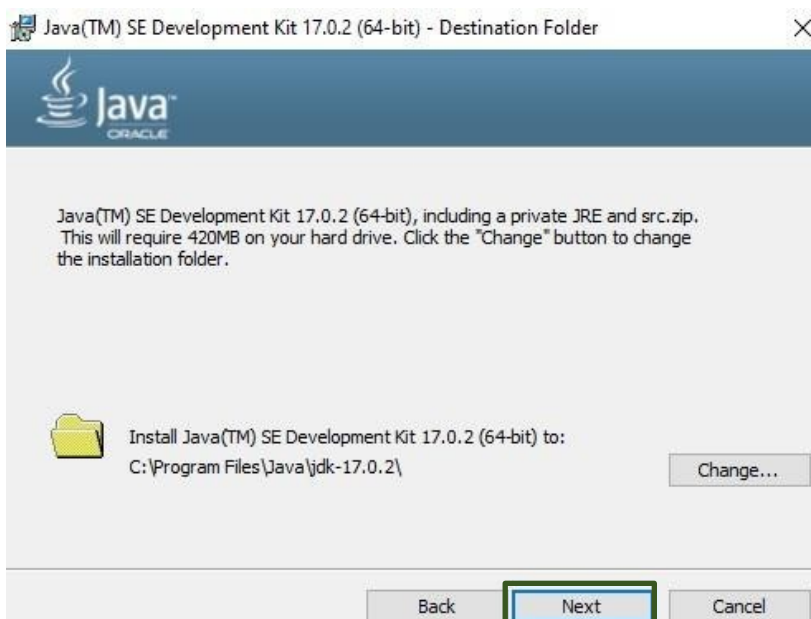
Click the **Yes** button to allow the install to continue.

Step 6 : Run the command prompt (terminal) window by searching for CMD and selecting 'Command Prompt'.

Verify Java is correctly installed by having it print its version number.

C:\Users\Purvi Jardos>**java -version**

java version "17.0.7" 2023-04-18 LTS
Java(TM) SE Runtime Environment (build 17.0.7+8-LTS-224)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.7+8-LTS-224, mixed mode,

- Setting JAVA PATH
  Note : Java 17 set the java required path automatically in PATH System Variable

  it set following path in System Variable Path permenatatly

  C:\Program Files\Common Files\Oracle\Java\javapath

If you wish to change the path setting then two ways
Two ways 1) Temporary 2) Permanent
Temporary : type command set path=C:\Program Files\Java\jdk17.07\bin
Permanent :
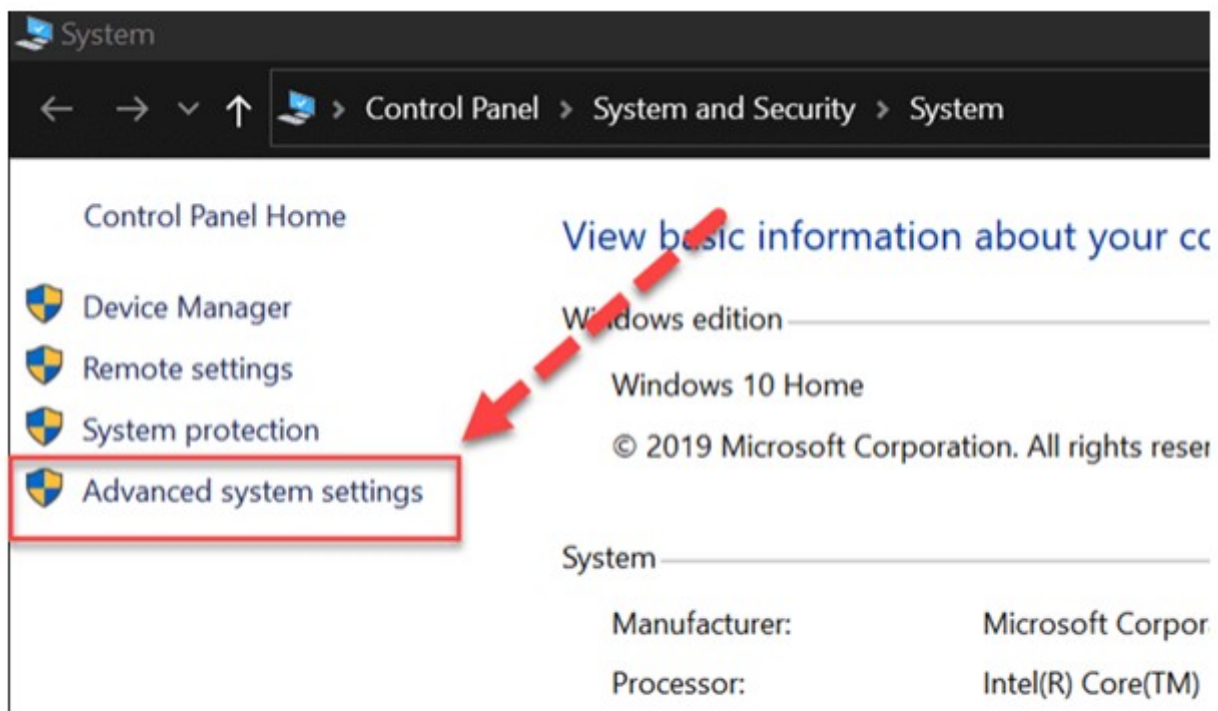
3. Under "System Variables" (the bottom pane), scroll down to select variable "Path" ☐
   Click "Edit...".
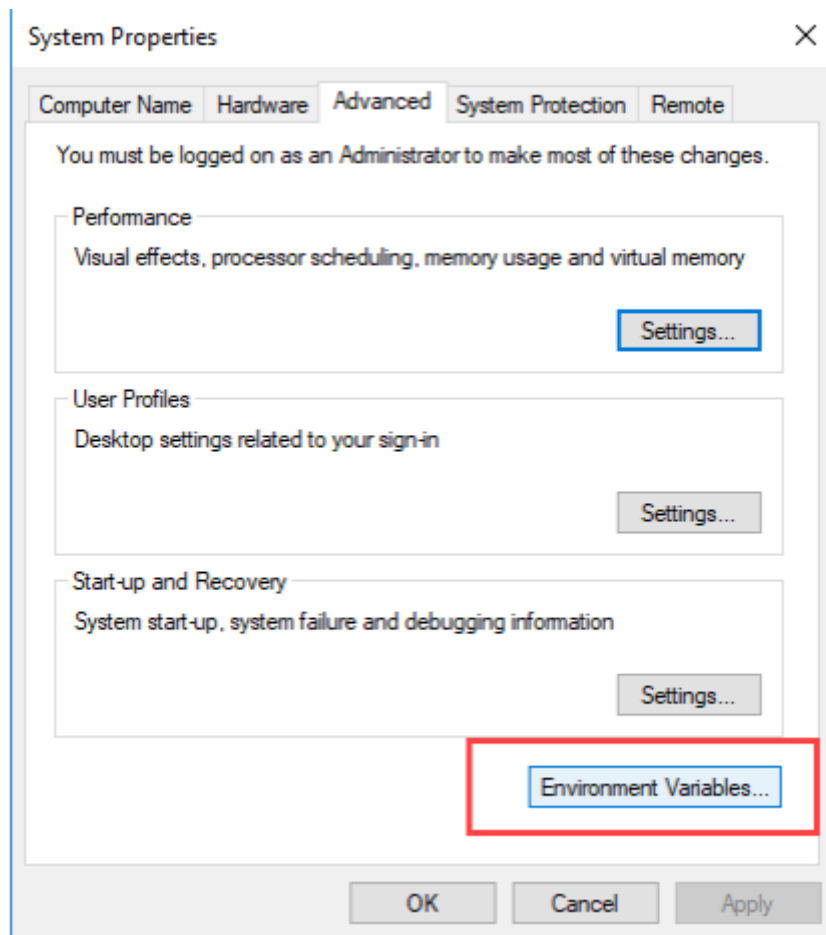
Edit the path if it required
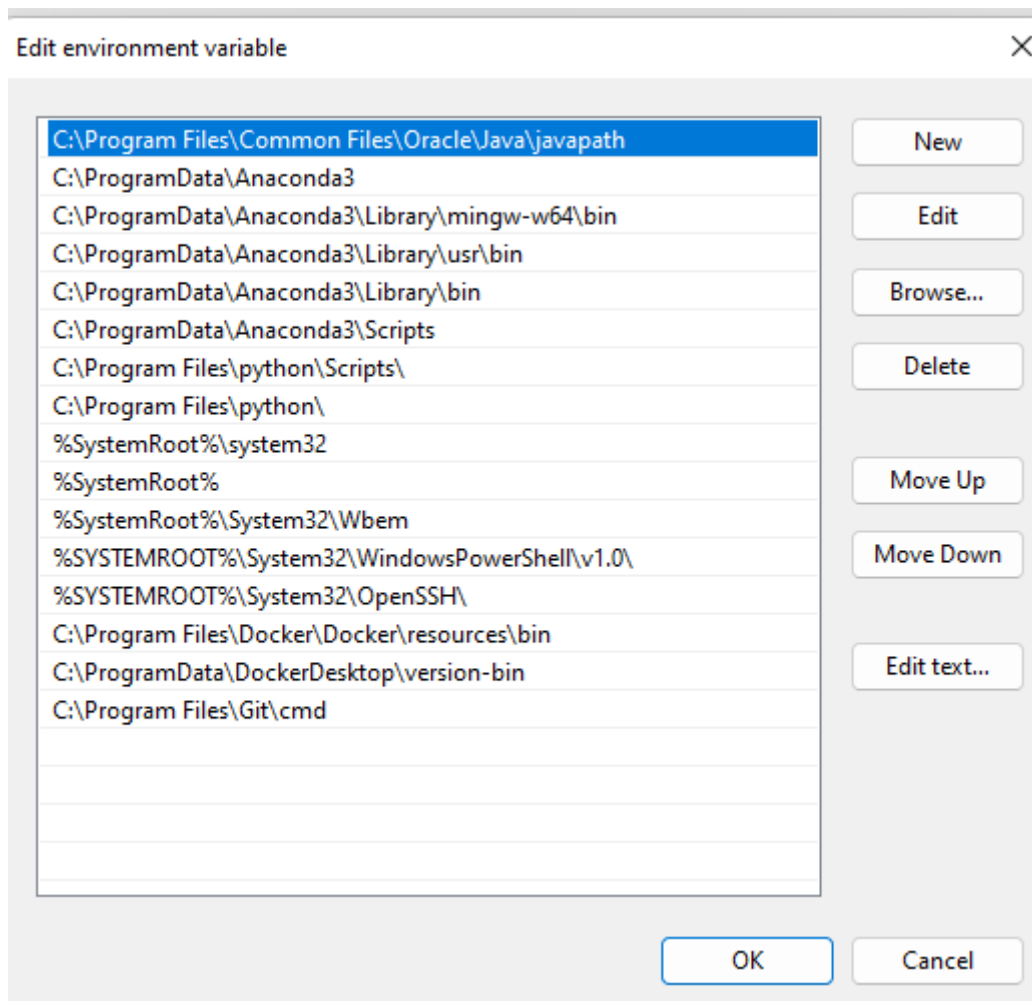
Setp 7: Set JAVA_HOME varibale.
Click on New button on system Variable
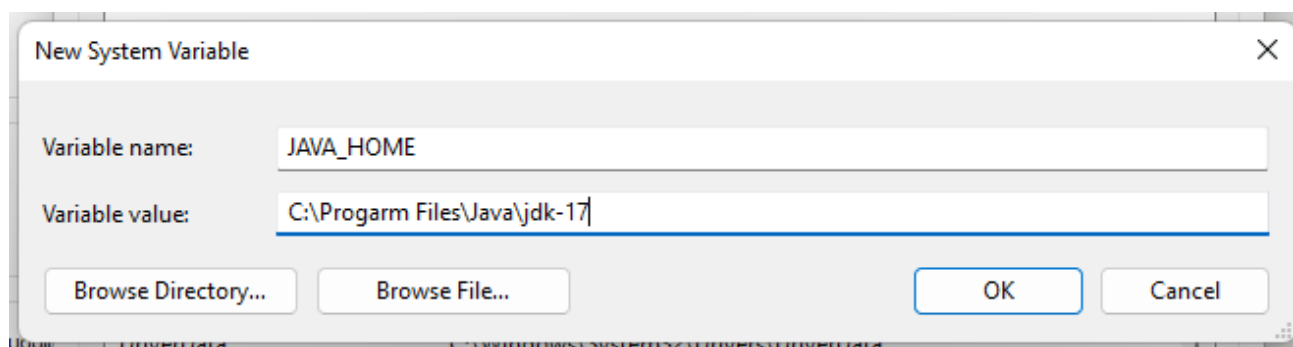
CLASSPATH :
In classpath third party jar files (API) icluded in the program then it can be set the path
of jar file as a classpath.
The preferred way to specify the class path is by using the **-cp** command line switch. This
allows the CLASSPATH to be set individually for each application without affecting other
applications

java -cp /path/to/class/files MyProgram

Installation of TEXT PAD

Step 1 : download textpad for https://www.textpad.com/download

download 64 bit with english language

WildEdit 2.4 (April 27, 2020):				
User Interface	**Online Help**	**Spell Checker**	**Download**	
English	English	N/A	32-bit	64-bit

Step 2 : double click on setup.exe
Step 3 : click on next button and install textpad
Step 4: check the configuration of java commands
        select configure→ preference

Test program in Textpad
e.g Write a simple Java program to print "HELLO DDU" on console. Explain the structure of a simple Java program.
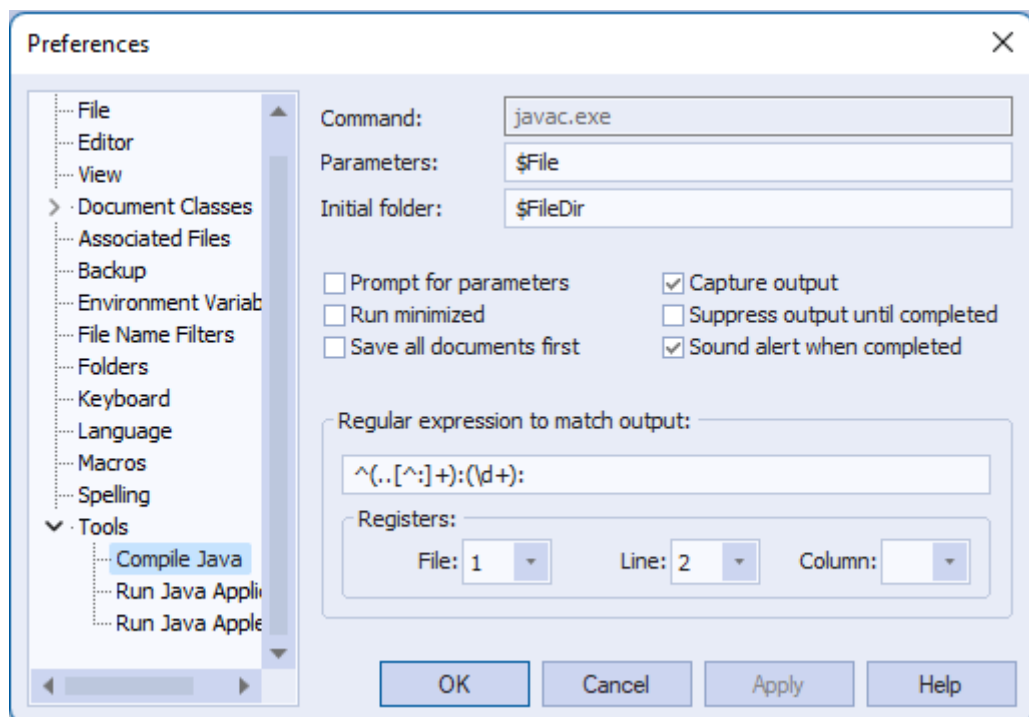
1. Package
   It is package declaration statement. The package statement defines a namespace in which classes are stored. The package is used to organize the classes based on functionality
2. "public class HelloWorld":
              a. public: This is access modifier keyword which tells compiler access to class.
              Various values of access modifiers can be public, protected,private or default (no
              value).

b. class: This keyword used to declare a class. Name of class (HelloWorld) followed by this keyword.
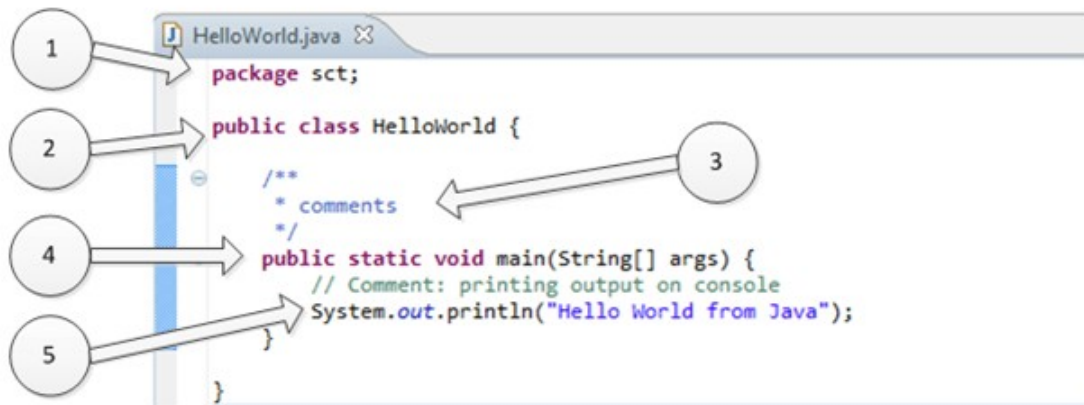
3 Comments section:

We can write comments in java in two ways.

a. Line comments: It starts with two forward slashes (//) and continues to the end of the current line. Line comments do not require an ending symbol.

b. Block comments start with a forward slash and an asterisk (/*) and end with an asterisk and a forward slash (*/)

4. "public static void main (String [ ] args)":

a. public: Access Modifier

b. static: static is a reserved keyword which means that a method is accessible and usable even though no objects of the class exist.

c. void: This keyword declares nothing would be returned from the method.

d. String[] args: It stores Java command line arguments and is an array of type java.lang.String class.

- **compile Java Program from command prompt**
  Directory path of your program> javac Programname.java
  e.g 1   d:\Test\Javac HelloWorld.java
  e.g 2   d:\Test\javac Program1.java Program2.java

  - **Run Java program from command line**
  Directory path of your program> java Programname
  e.g 1   d:\Test>Java HelloWorld

  Run Java program with commandline arguments
  e.g d:\Test>java Helloword mca sem2 name

Excercise:
1. Write the installation steps for jdk
2. why it is requried to set JDK\bin directory in PATH variable.
3. When classpath is requrired to set. Give example how to set and compile program with

classpath.
4. Write a java program to print student name and rollnumber.
5 Write a java program to print 1 to 10.
6 Write a java program to pass command line arguments and print the values.