Hello World Java – Your First Java Program

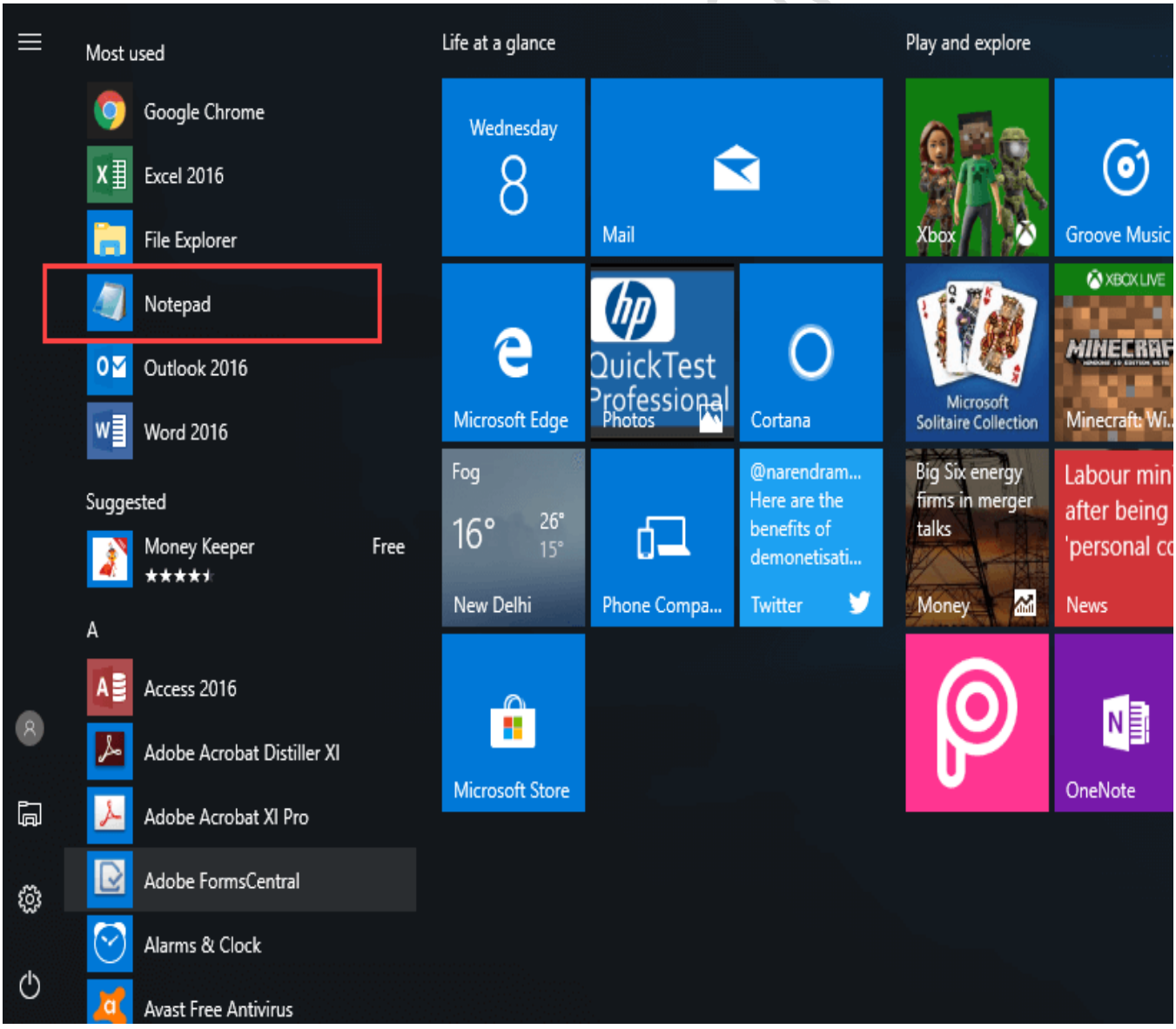
You need the following 2 software to create your first Java Program:

1. The Java SE Development Kit: Click to download and install JDK

2. A Text Editor: In this Lab Manual of Java Hello World example, we'll use Notepad. It is a simple editor included with the Windows Operating System. You can use a different text editor like NotePad++

Steps to Compile and Run first Java program

Step 1) Open Notepad from Start menu by selecting Programs > Accessories > Notepad.

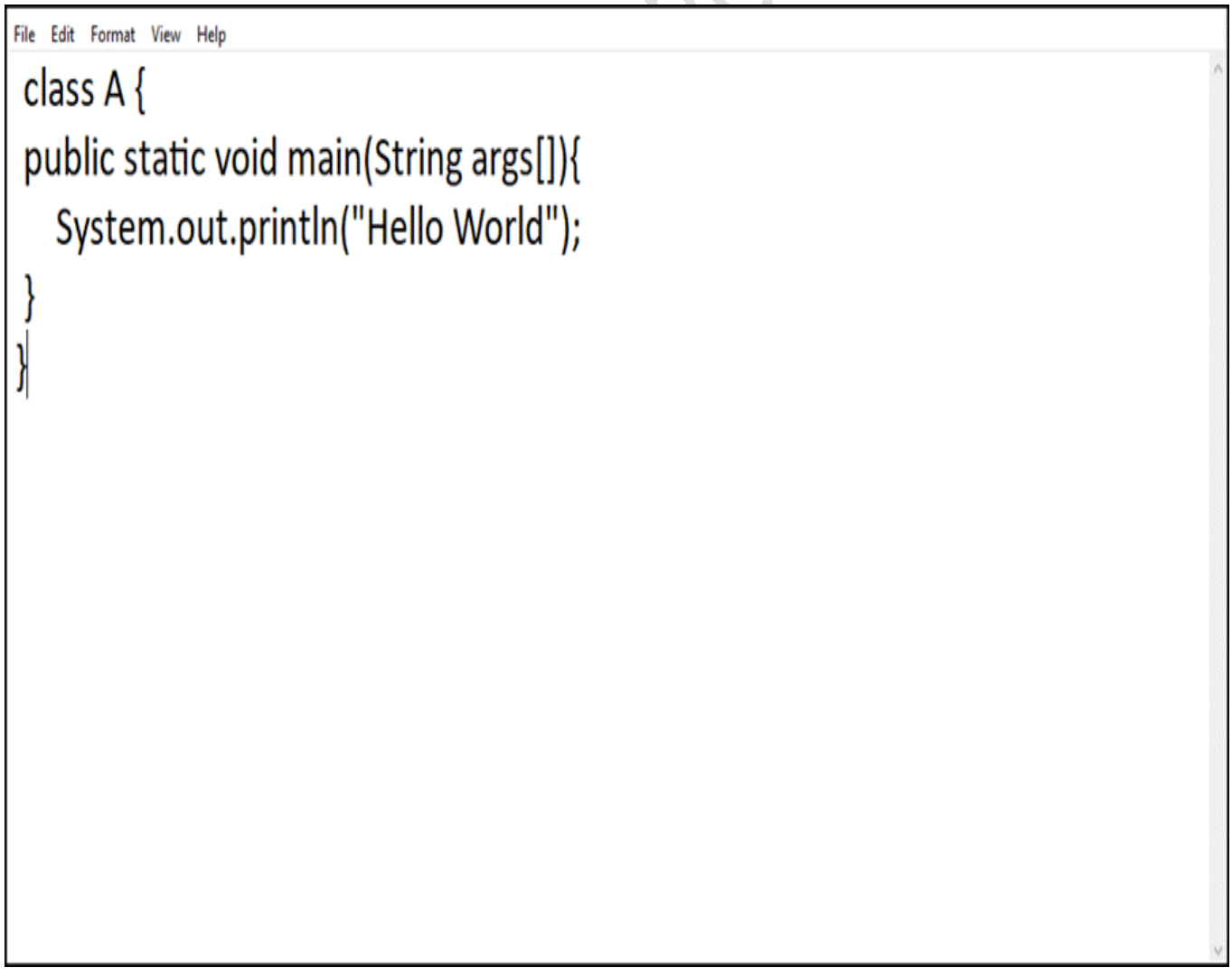


Step 2) Create a Source Code for your Hello World program in Java

- Declare a class with name A.
- Declare the main method public static void main(String args[]){
- Now Type the System.out.println(“Hello World”); which will print Hello World in Java.

Code Example

```
class A {
 public static void main(String args[]){
    System.out.println("Hello World");
 }
}
```

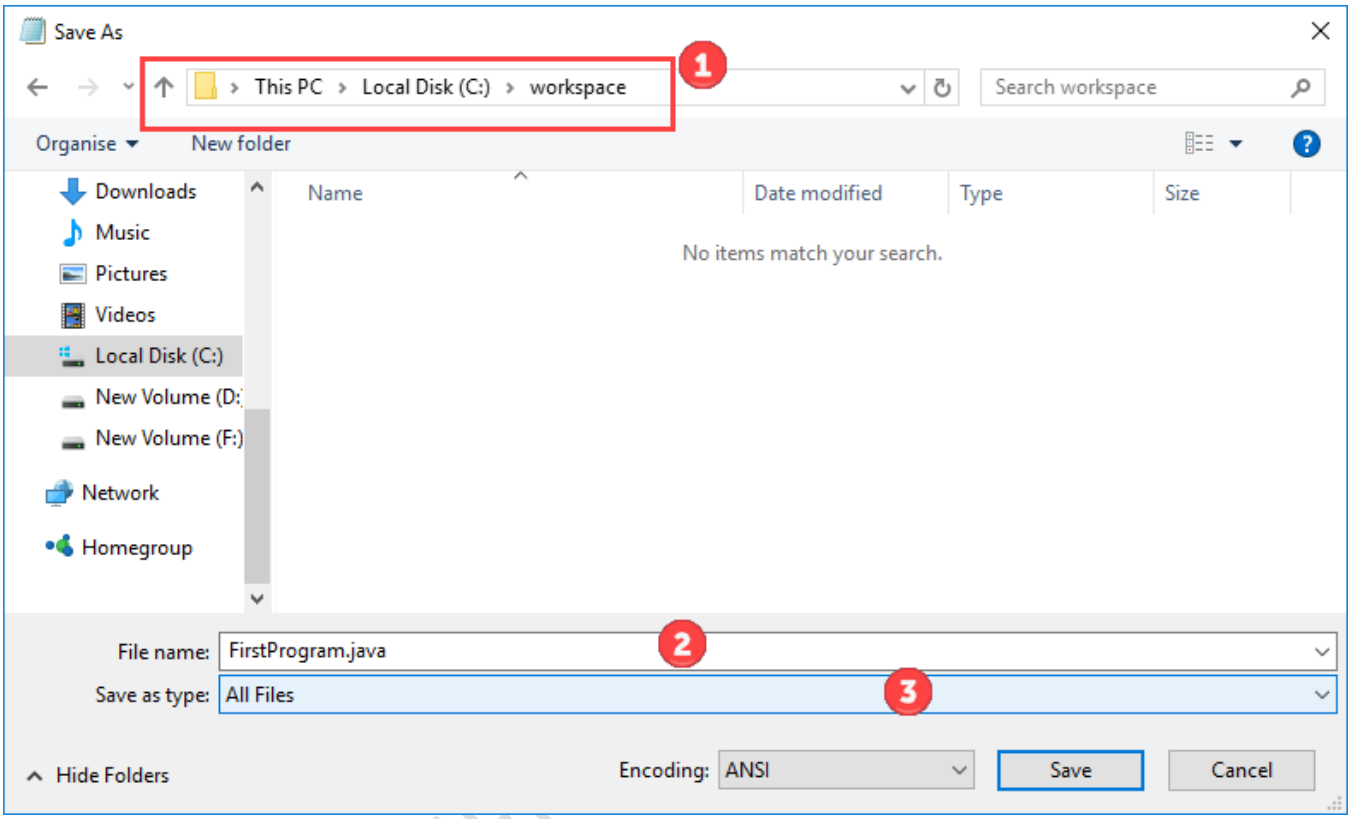



Step 3) Save the file for Java Hello World program as FirstProgram.java make sure to select file type as all files while saving the file in our working folder C:\workspace or on Desktop.

1: Shows the address of the folder where the file is going to be saved

2: Shows the correct way to name a file without space and add an extension .java

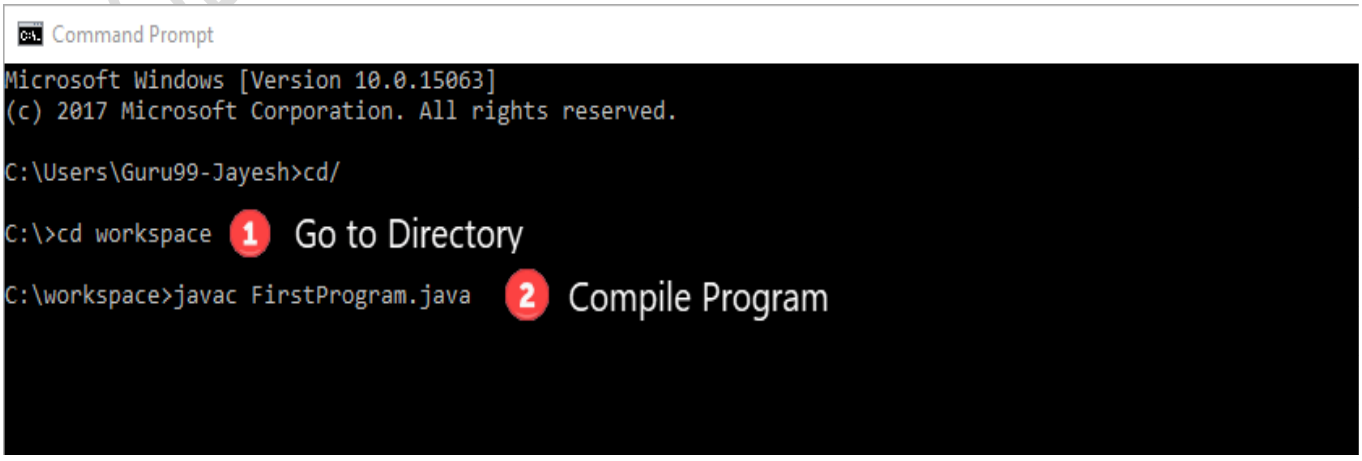
3: Shows the file type to be saved, select All Files to before saving



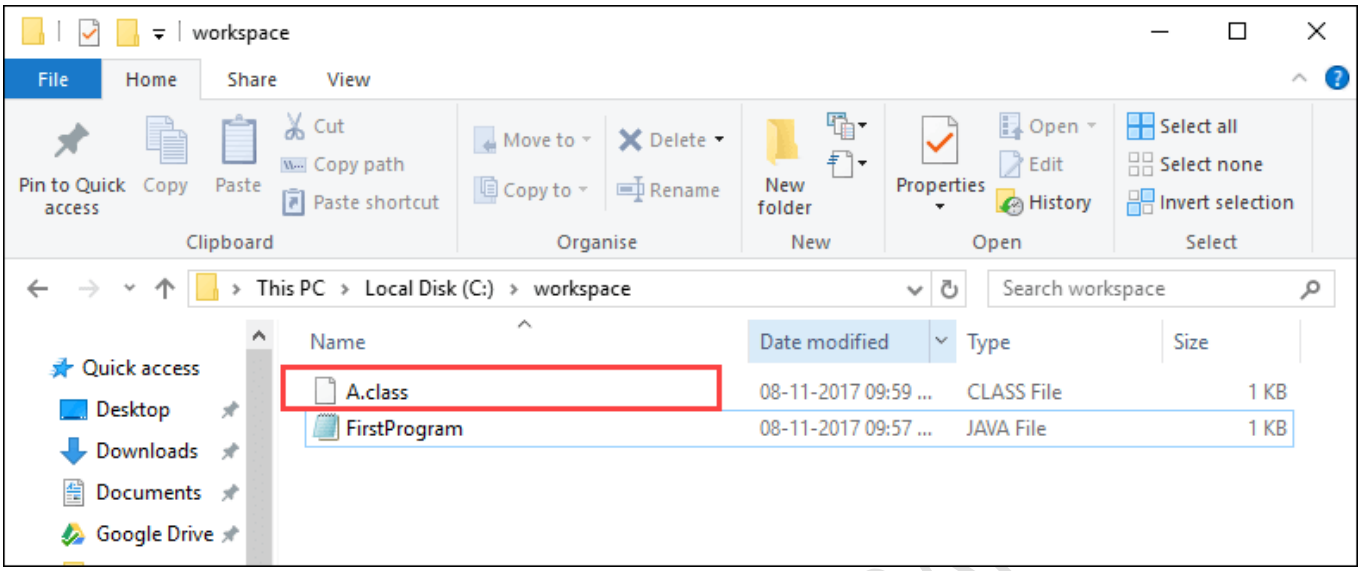
Step 4) Open the command prompt. Go to Directory **C:\workspace**. Compile the code of your Hello world Java program using command

1: shows directory change with command cd

2: shows a command of compiling a program in command prompt javac FirstProgram.java

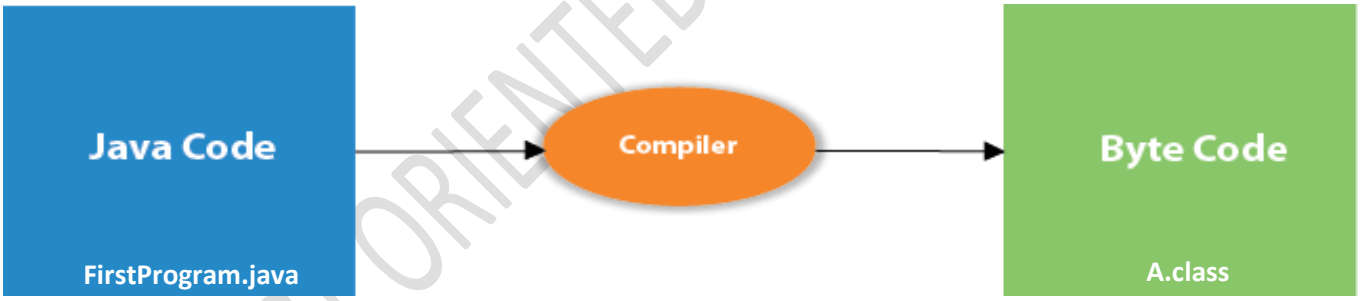


Step 5) If you look in your working folder, you can see that a file named **A.class** has been created.



Compilation Flow:

When we compile Java program using javac tool, the Java compiler converts the source code into byte code.



Step 6) To execute the code, enter the command java followed by the class name, as expected output **Hello World** is displayed now.

To execute your program now: write java following with your class name as mentioned in your java code file. For an instance here class name is “A” so write java A to compile code in command prompt.

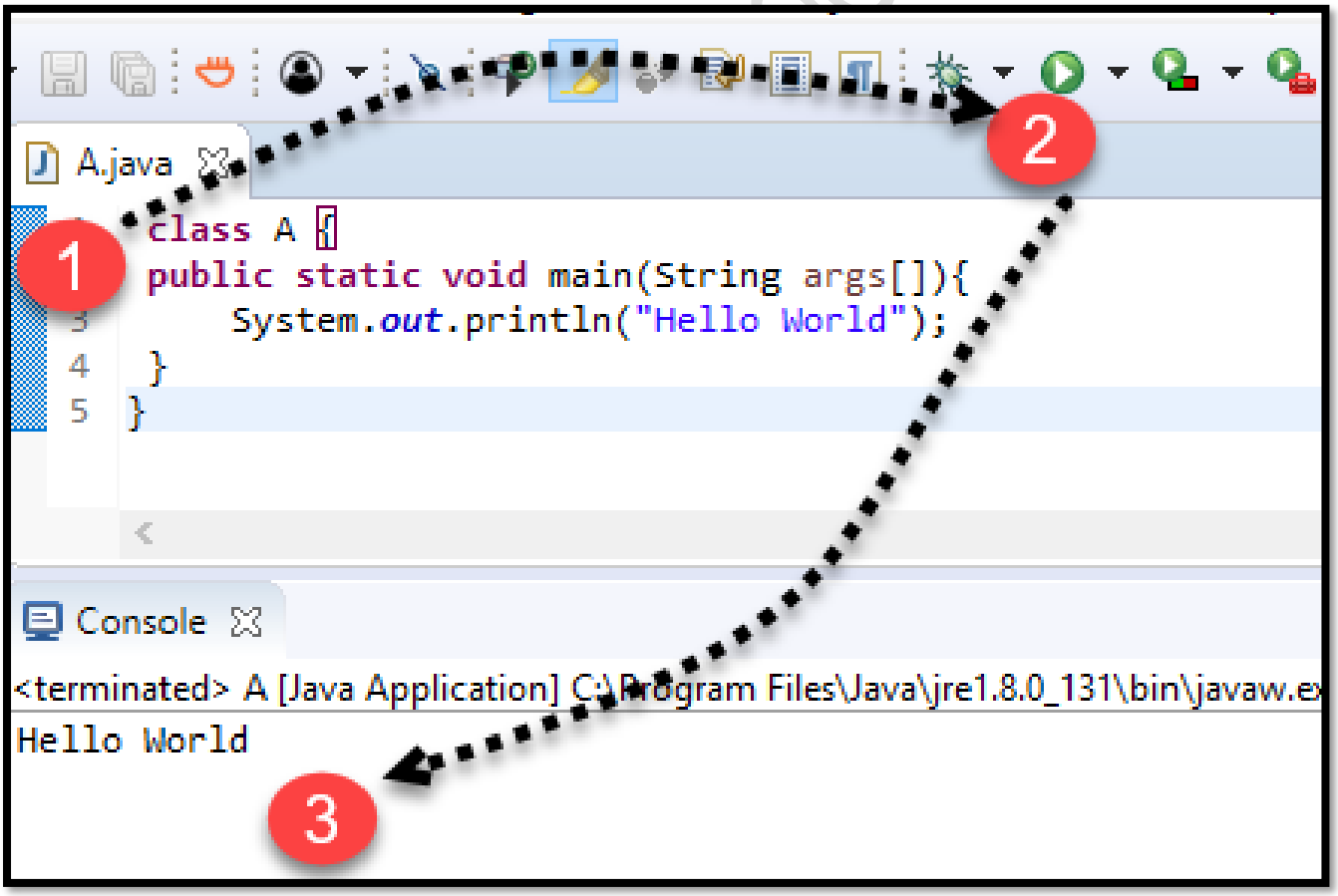
Note: Java is case sensitive Programming language. All code, commands, and file names should is used in consistent casing. **FirstProgram** is not same as **firstprogram.**

Step 7) If you copy and paste the same code in IDE like Eclipse the compiling and execution is done with the click of a button Using IDE is convenient and improves your efficiency but since you are learning Java, Notepad is recommend for simple Java program execution.

1: Code of Java

2: Button to Compile and Run Java Code

3: Showing the Console for Result of the compiled code



Parameters used in First Java Program

Let's see what is the meaning of class, public, static, void, main, String[], System.out.println().

- **class** keyword is used to declare a class in Java.
- **public** keyword is an access modifier that represents visibility. It means it is visible to all.
- **static** is a keyword. If we declare any method as static, it is known as the static method. The core advantage of the static method is that there is no need to create an object to invoke the static method. The main() method is executed by the JVM, so it doesn't require creating an object to invoke the main() method. So, it saves memory.
- **void** is the return type of the method. It means it doesn't return any value.
- **main** represents the starting point of the program.
- **String[] args** or **String args[]** is used for command line argument. We will discuss it in coming section.
- **System.out.println()** is used to print statement. Here, System is a class, out is an object of the PrintStream class, println() is a method of the PrintStream class. We will discuss the internal working of System.out.println() statement in the coming section.

Practice Tasks:

1. Write a java program in notepad to show Your Name, Your Father Name and University Name on Command Prompt.

2. Using Notepad, create two variables and add them in third variable named sum and print that sum result in the Command Prompt.

3. Make a for loop in Notepad and compile output on Command Prompt. For Loop should start from 0 and limit it to 20. The output should be displayed in Command Prompt as a whole number.