Java Programming Language

Features

- Platform Independent--- The code written in any OS, will work on any OS
- Machine Independent----The code which runs on any machine and independent of hardware
- Garbage collector------deamon thread. It releases the memory from heap area, when the variable goes out of scope, it releases the memory from heap area.

It pauses the program execution when garbage collector runs, And hence for optimization purpose garbage collector runs only when heap area if full up to the threshold value.

- Multithreading-→ we may write multithreading programs using java.
- Network programming is also possible--→ In java socket programming is possible.
- Database connectivity is possible to use in JAVA, It is independent of database
- Simple --→ no * operator

JDK, JRE,JVM

Install jdk 11 or jdk 17

https://www.oracle.com/in/java/technologies/javase/jdk11-archive-downloads.html

to setup java—

search in start button-→ edit system environment >environment variable

set JAVA_HOME variable in environment variable

C:\Program Files\Java\jdk-17

Set path to

%JAVA_HOME%\bin

Set classpath

%JAVA_HOME%\lib;build

To set the classpath through command line

Set classpath=%JAVA_HOME%\lib;build

To compile the file

E:\IET JAVA>javac -d build AddNumbers.java

To run the program

E:\IET JAVA>java -classpath build AddNumbers

Operators in java

Arithmetic operator	+, -, /, *, %, **
Logical operator	&& , ||, !
Relational operators	>, <, >=, <=, ==, !=
Bitwise Operator	&, |, >>, <<, ~, ^
Ternary operator	Condition? True:false

Rules

1. Class name should starts with Capital letter followed by Camel case
2. Variable and function name should start with small case letter and followed by camel case
3. On top of every function or complex logic one liner comment should be there

If statement

If(condition){
//statements
}else{
 //statements
}
	If(condition){
	//statements
	}else{
	 if(condition){
	 //statements
	 }
	 Else{
	
	 }
	}

Note :

Public static void main(String[] args)

Since JVM calls main method, from outside the class, so main method is public

Since we want to call main method, without creating object of the class, so it is static

Since main method does not return any value, so it the return type is void

Note:

Static methods can call only other static methods without creating the object of the class

To call static method we use classname.methodname()