

## Java Programming Language

### Features

- Platform Independent
- Machine Independent
- Garbage collector-----daemon 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 is 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.
- 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-11

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.java

## 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