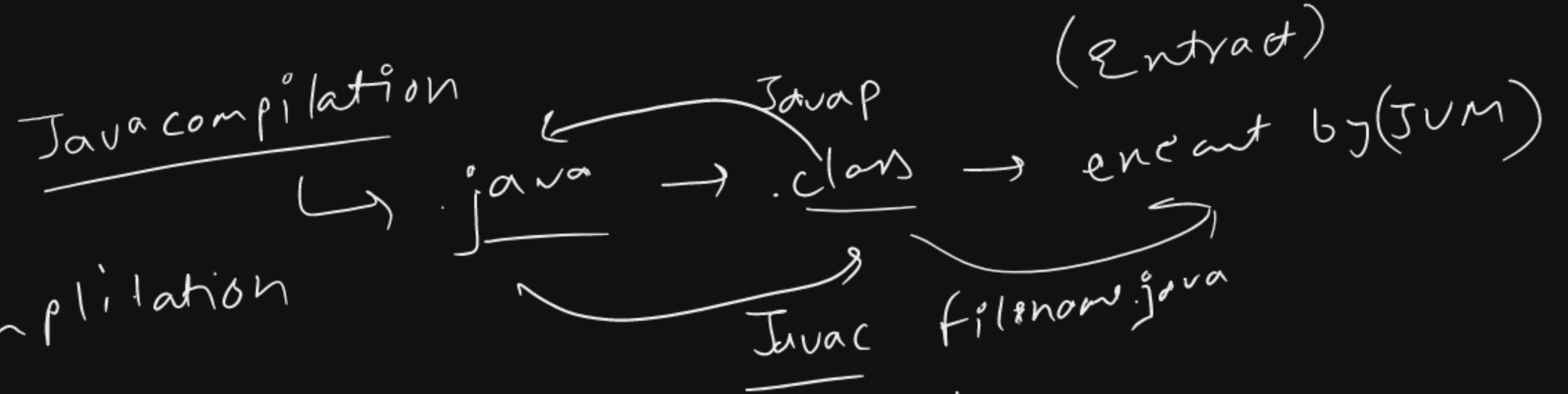


- > java compilation
- > memory management
- > data types
- > input output
- > operators
- > control statements



→ Java C

→ compilation

→ Java P

→ Abstract signature functions, fields

→ Java

→ interpreter or (.class), (.java)

→ JShell

→ REPL → 1 line code

✓ Absolute
✓ Relative

home
→ windows [C:/], D:/
→ Linux /home
→ kisi directory k relate

Python

→ C) ✓
→ C) ✓
⋮

Repl

Read
Eval
Print
Loop

- > java compilation ✓
- > memory management
- > data types
- > input output
- > operators
- > control statements

Java (file name) JVM Architecture

$JDK = (JVM) + (JRE) \rightarrow \begin{bmatrix} \text{Build like k liya} \\ \text{tools} \end{bmatrix}$ (signature)

Execution (Memory)

↓ class

(loading) → Bootstrap (jrt.jar) (JDK)

→ Extension (util, Scanner)

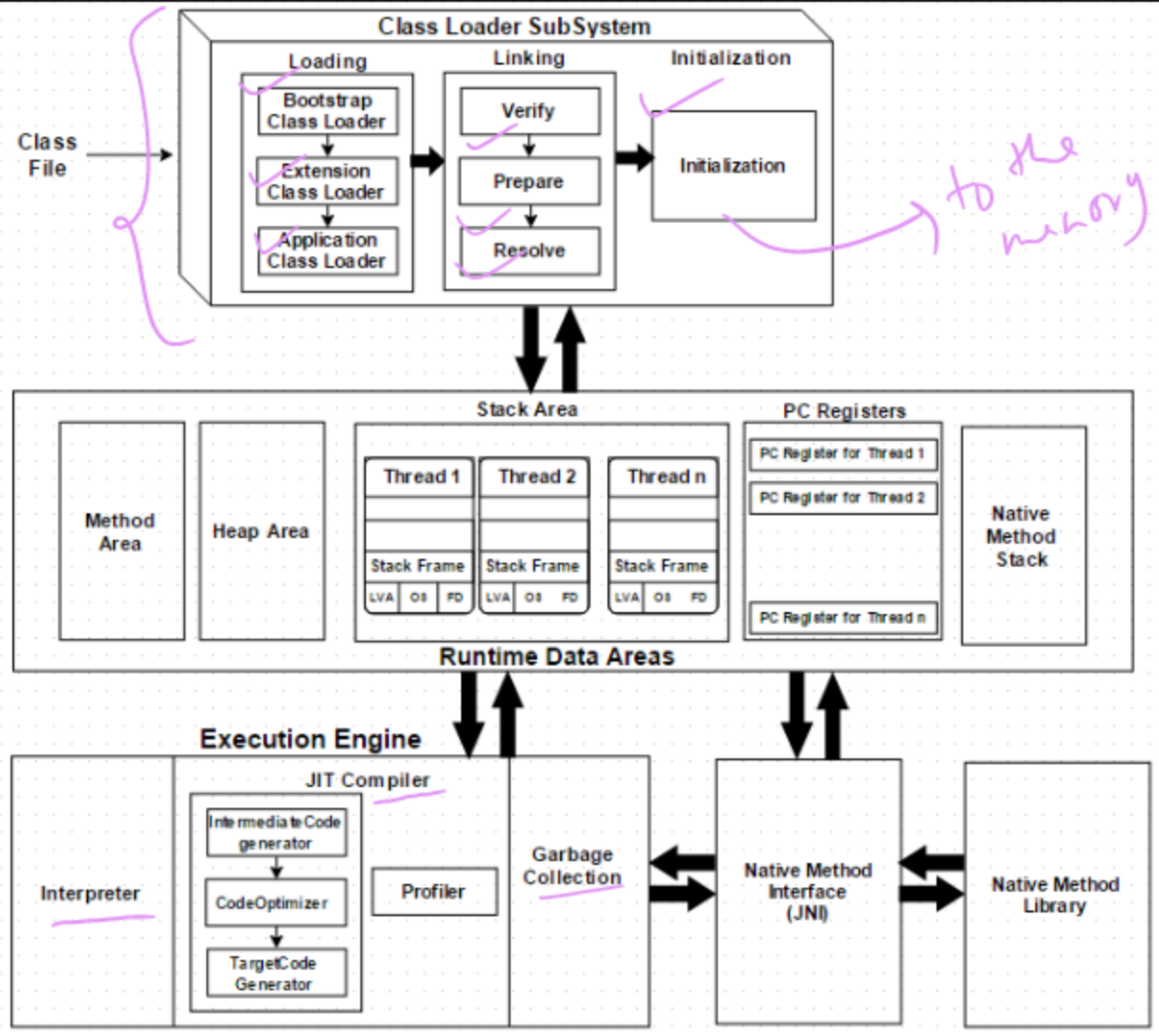
(linking) → Application (1 or more)

(Bytecode)

Verify → classes validate

Prepare → conversion to class

Resolver → code integration



- > java compilation ✓
- > memory management
- > data types
- > input output
- > operators
- > control statements

• Interpreter

Execution (JIT)

Code → (Memory) → Execution
(↳ steps)

(Scheduling Algos)

PC Register

Just In Time (JIT compiler) → (FCFS)

(JVM) virtual space

method

(10) times

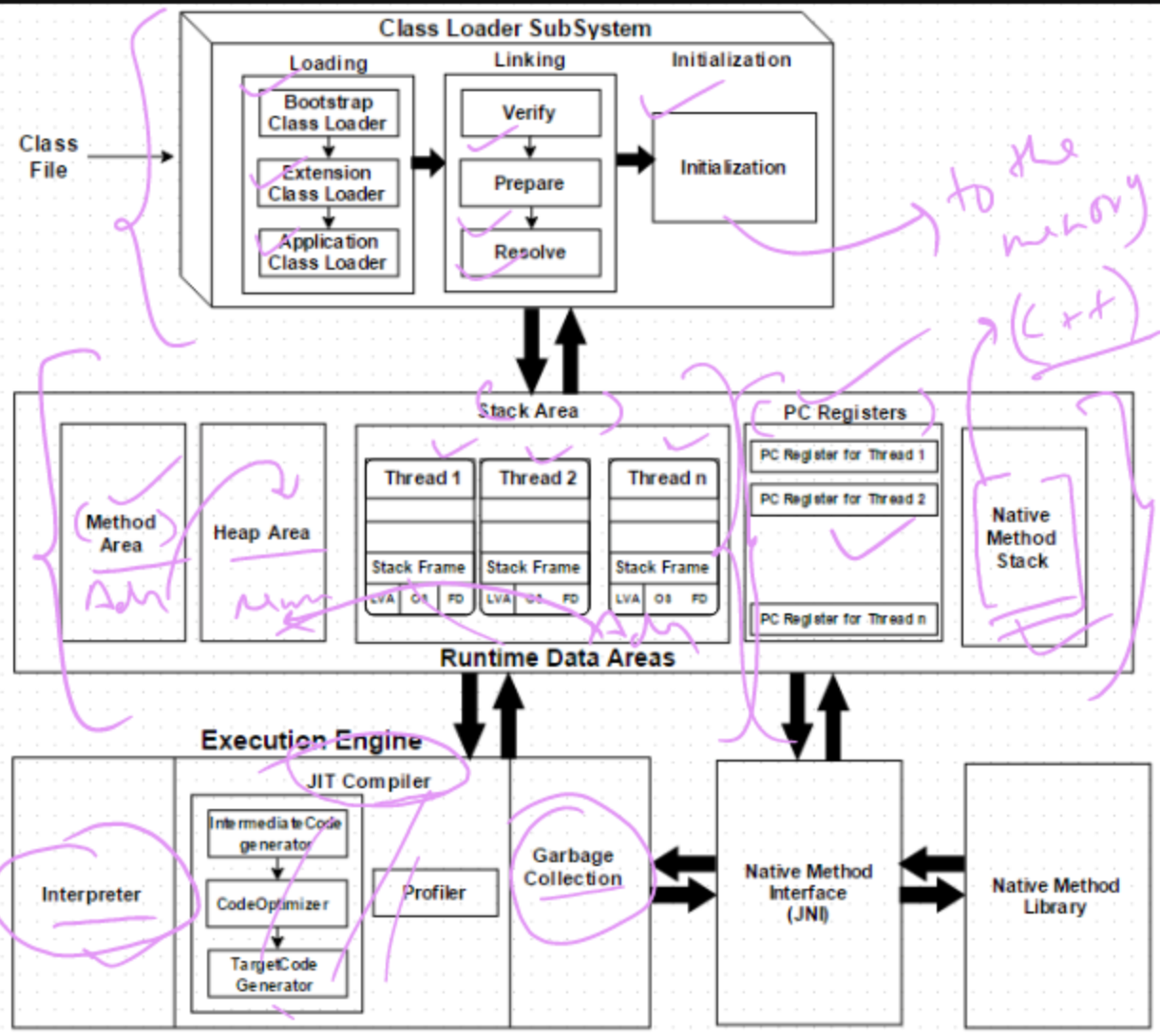
stop

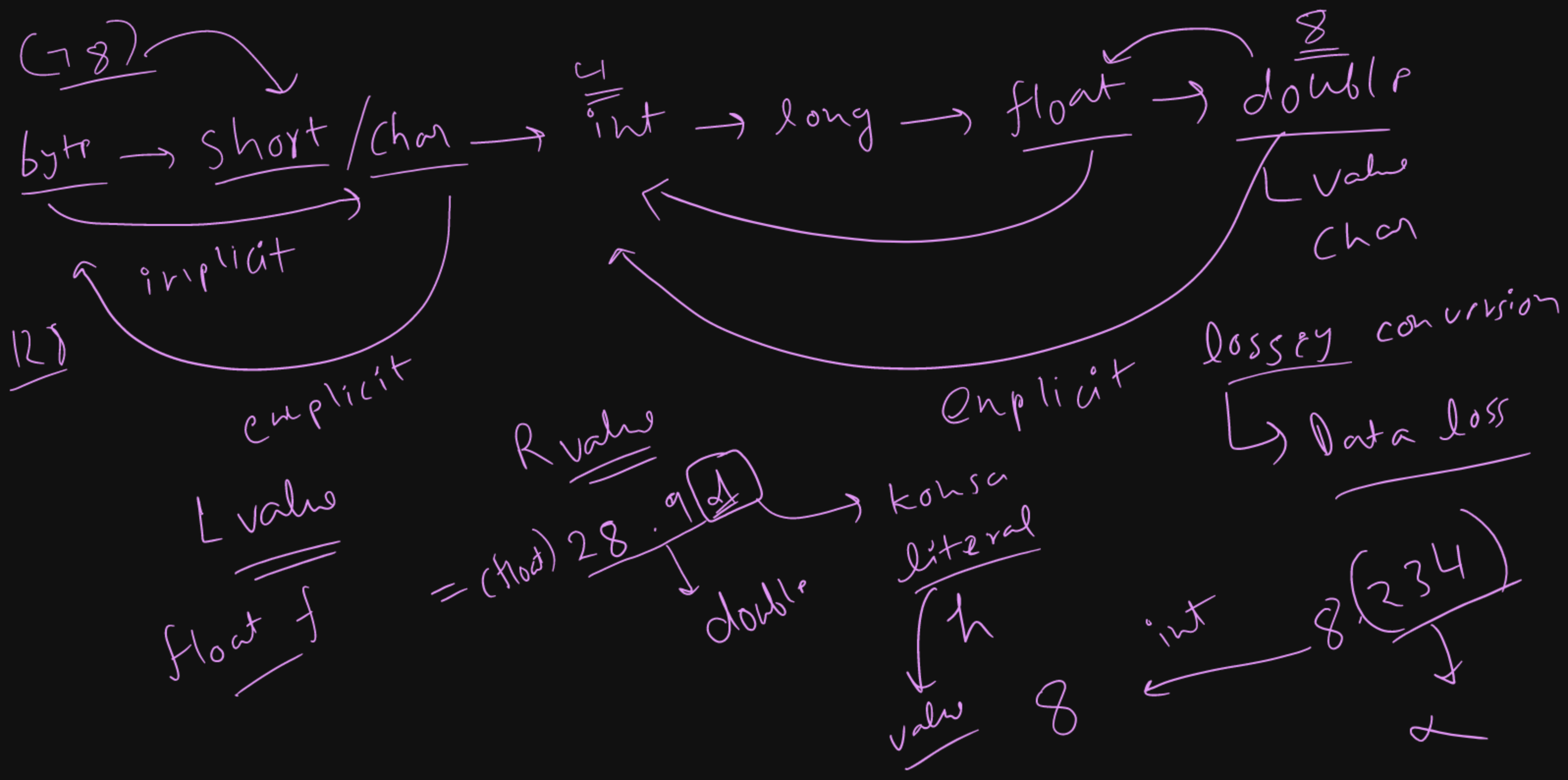
Result

Automatic memory free

Hardware (Address)

(No interaction)





Java

→ boolean
↳ literal
[true / false]

→ boolean b = 6.5
↳ lossy conversion

if (b == true)

C / C++ / JS

→ boolean -1, 1, 0.2
↳ truthy list
↳ ~0, null

↳ (falsy list)

↓
0, null, undefined

if (b)

→ bool b = 3.5
↳ true