[Java program Execution]

Java · · · — · · · , Java → source code files

↓

Compiler

.class .class · - · - · . class → byte code / . class files

⇊

JVM → software

↑

OS

↓

H/w
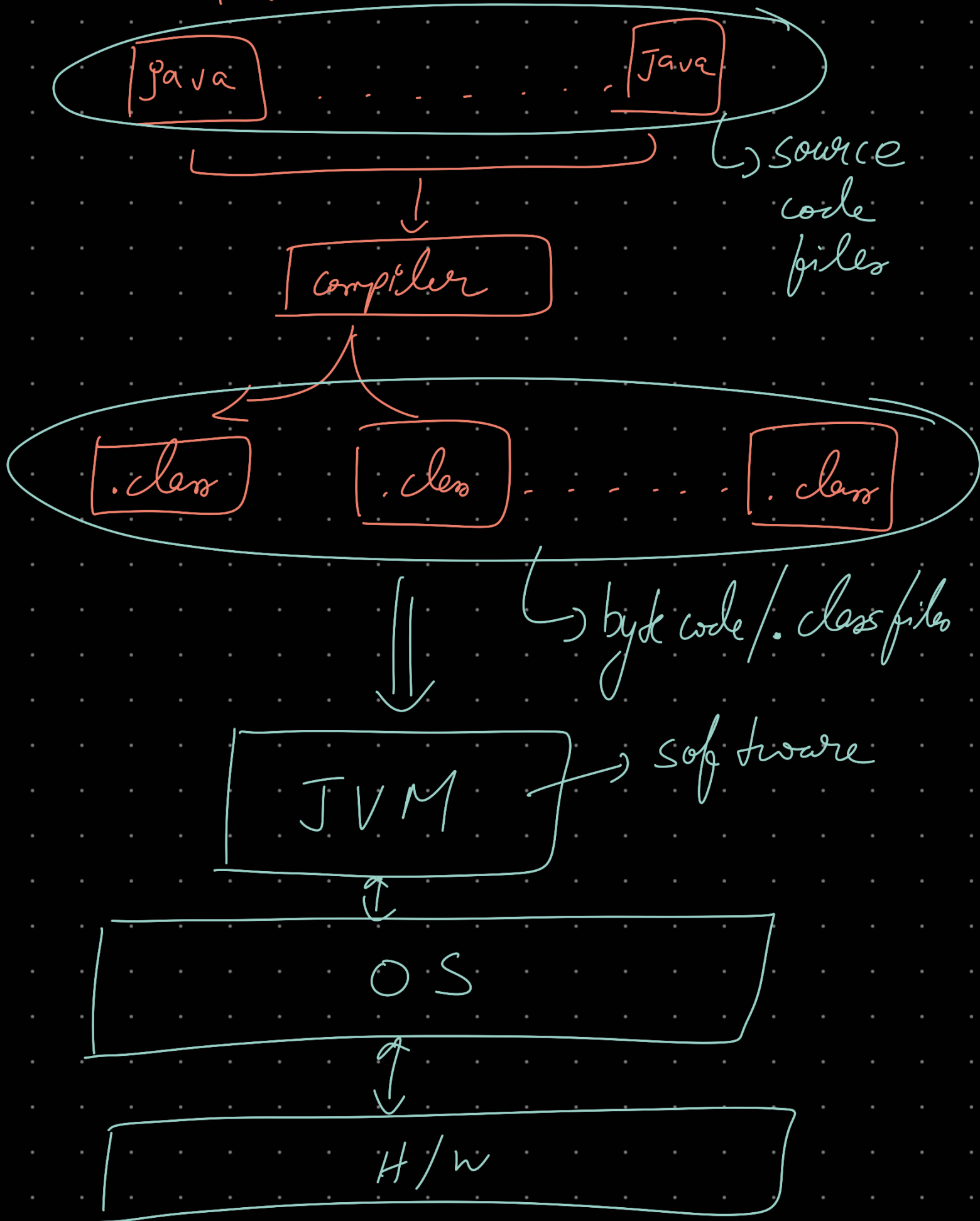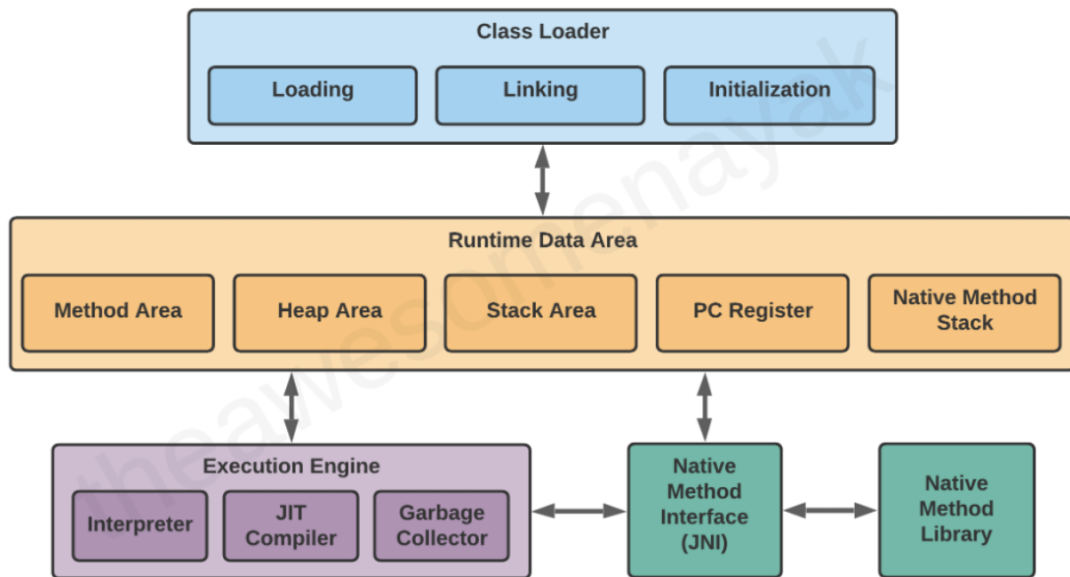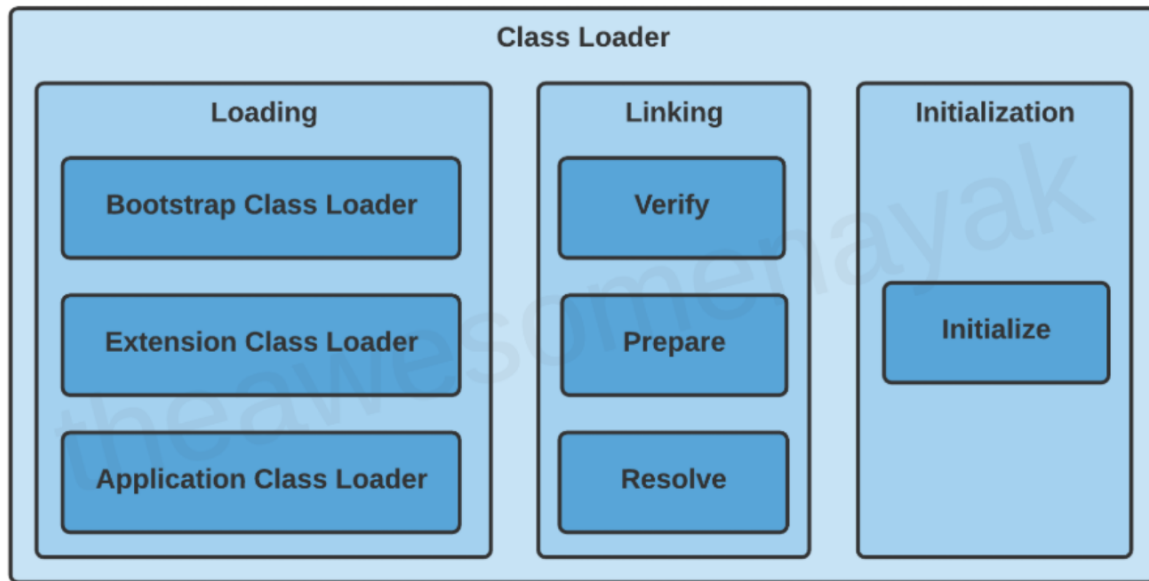
[JVM architecture]

① Class Loader

↳ Loads byte code / .class file

↳ First class that is loaded
to memory is the one containing
main() method

↳ works in 3 steps

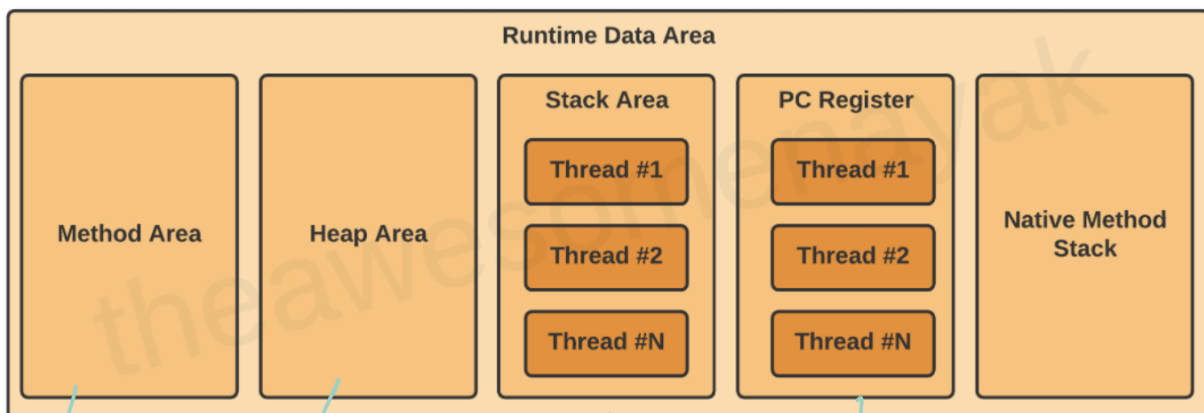## Class Loader

Loading	Linking	Initialization
Bootstrap Class Loader	Verify	Initialize
Extension Class Loader	Prepare	
Application Class Loader	Resolve	

① ② ③

② Runtime Data area

Runtime Data Area

Method Area	Heap Area	Stack Area	PC Register	Native Method Stack
		Thread #1	Thread #1	
		Thread #2	Thread #2	
		Thread #N	Thread #N	

Code segment

Shared

per thread

per thread

③ Execution Engine

Execution Engine

| Interpreter | JIT Compiler | Garbage Collector |