

Op logic	Formula echivalentă	Op art	Formula echivalentă
$A \oplus B$	$(A+B) - 2(A \text{ AND } B)$	$A+B$	$(A \oplus B) + 2(A \text{ AND } B)$
$A \oplus B$	$(A+B) - (A \text{ AND } B)$	$A-B$	$(A \oplus B) - 2((\text{NOT } A) \text{ AND } B)$
$A \text{ AND } B$	$\frac{(A+B) - (A \oplus B)}{2}$	$-A$	$(\text{NOT } A) + 1$
NOT A	$(-A) - 1$		

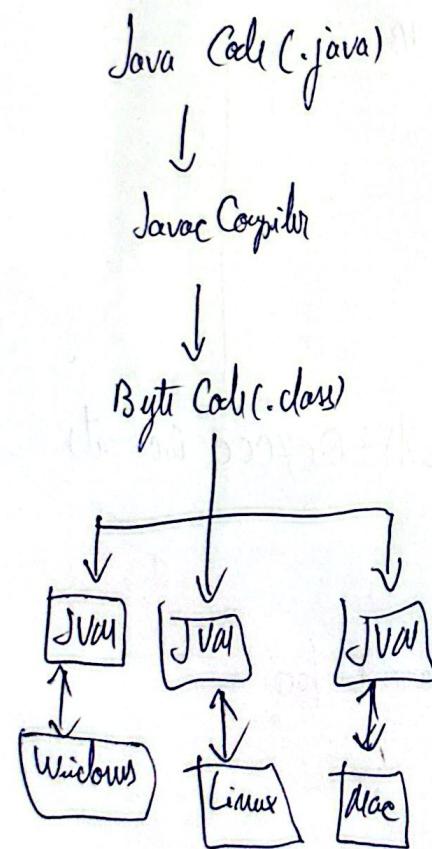
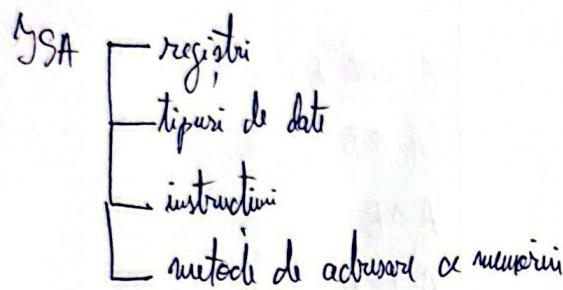
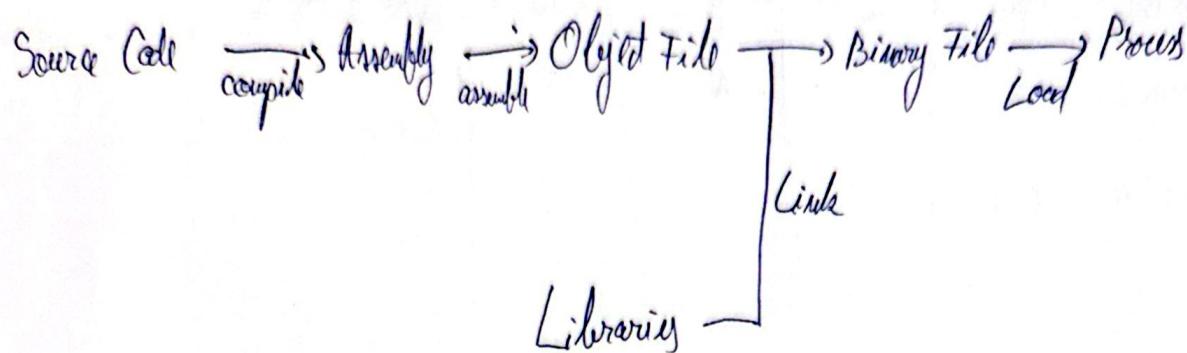
NOT	AND	OR	NOT
NOT A	$A \text{ AND } B$	$A \text{ OR } B$	$A \text{ AND } B$
\bar{A}	$A \cdot B$	$A+B$	$A \oplus B$
$\neg A$	$A \times B$	$A \vee B$	$A \wedge B$
$\sim A$	$A \cdot B$	$A \mid B$	$A \neq B$
$\neg A$	$A B$	$A \parallel B$	
A'	$A \wedge B$		
$\mathbf{!} A$	$A \& B$		
	$A \& \& B$		

Bootloader: adresa $0x4155$ (gasit), $\sim 0x4000$ (incercat)

HxD = hex editor

UEFI = Unified Extensible Firmware Interface

as -m32 program -exit.cess -o program -exit.o
ld -m elf_i386 program -exit.o -o program -a.out



Code interpretation

Java: Java byte-code \rightarrow Java VM

C#: Common Intermediate Language (CIL) \rightarrow Common Language Runtime (CLR) 2.1.157

Python: .py, python byte-code \rightarrow python VM

JavaScript: .js \rightarrow V8 von SpiderMonkey

JIT (Just-In-Time Compilation)

op intruji / biti	1
imultire intruji	3
imultrre intruji	depends (20-80)
adunare FP	3
imultrre FP	5
imultrre FP	(depends) 20-80
fused-multiply-add FP	5

Option	option-level	Execution	Code size	mem. usage	compilation
-O0	optimization for compile time	+	+	-	-
-O1 or -O	- for code size and execution time	-	-	+	+
-O2	- for code size and execution time	--	+	++	
-O3	- for code size	---	+	++	
-Os	- for code size	--	--	++	
-Ofast	O3 with fast math accurate math calculations	---	+	++	