* Program $\longrightarrow$ 0 1 0 1 0 1 0 1 0 1 0 1 0 1 . . .

Binary

[Program in binary]

$\Downarrow$

Assembly Abstraction

Program $\rightarrow$ ADD Ro, 1

$\parallel$

High level Abstraction

Program $\rightarrow$ [C = C + 1]

$\parallel$

collection of Data + Instruction

function

Binary

$\Uparrow$

(Assembler)

$\Uparrow$

[Assembly]

$\Uparrow$

(Compiler)

$\Uparrow$

$\Downarrow$

Program at HLL $\longrightarrow$ stream of ASCII characters

$\longleftrightarrow$

[Developer Level]

$\parallel$

combination of character

‖
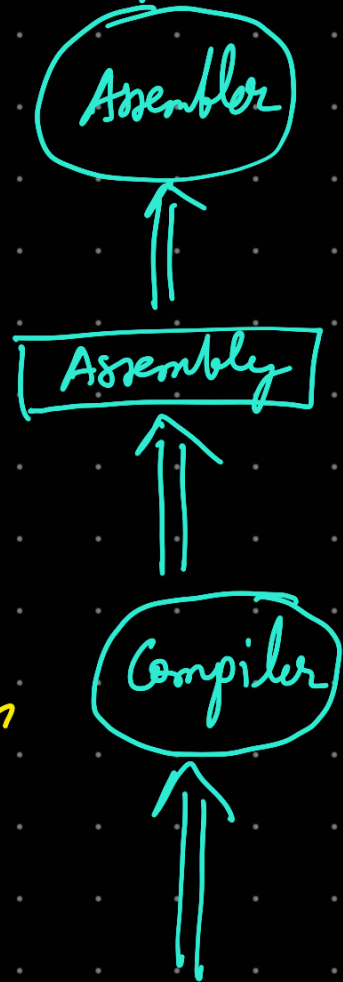
$\boxed{\text{Token}}$

↳ Most fundamental concept of compiler

Note:- Final exec/object file binary format depends on type of operating system. Each compiler adds extra bits which identifies how to read the executable

E.g →

PE   → Windows

ELF/COFF → Linux

Mach-O → MacOS