

Programming

↳ To instruct computer
perform certain actions

→ what, how

Programming Language

↳ medium by which you interact
with computer

eg → Java
→ C++
→ Python
etc

Types of Languages

→ Machine language → 01

→ High level language

→ Low level

→ Assembly language

0, 1 \Rightarrow binary language
 \hookrightarrow

\rightarrow Smallest unit through which you can communicate with computer

$2^2 \Rightarrow 4$

00	-0
01	-1
10	-2
11	-3

2^3
8

000	\rightarrow 0
001	-1
010	-2
011	-3
100	-4
101	-5
110	-6
111	-7

8 bit

0 0 0 0 1 0 1 1

32 64

32 bit

byte - - - - -

1 byte = 8 bits

4 bytes = 32 bits

100 Mbps

↪ 100 Mega bits /s

bits / 8

→ speed in bytes

Data types

Tanmay → string

24 → Integer

80.80 → decimal

A → character

false → boolean

Primitive

Non Primitive

↳ Integer

int, long, byte, short

→ Decimal

float, double

→ character

char

→ boolean

boolean

int

Variables

→ ① upper case, lower case
2 special characters (-, \$)
digits (0-9)

X New school

-abc
New-school
NewSchool
New 7 school

② don't start with digits

③ no spaces

④ no keywords

int NUM = 10; value
↓ ↘
data type variable name

int a; // declaration

a = 10; // initialisation

a = 30;

a [10]

sysoc(a)

int c = 10 + 20;

int d = c + 60;

sysoc(c); // 30

sysoc(d); // 90

int e = 10;

→ e = 20;

→ e = e + 30;

sysoc(e);

e [20]