

Why do we need a programming languages?

1 to 10 →

1 to 100 → time ↑

1 to 10,00,000 → time (very high)  
(1 million)

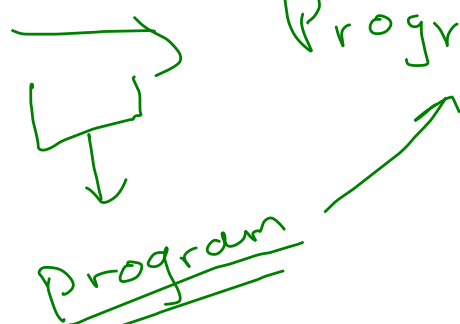
PC → Binary  
language/Number  
[0, 1]

Computation time ↓  
↓  
Humans  
(slow)

PC (decrease)

1. > Computations can be done very fast (Programming language)

Java, C, C++, Python ✓

2. > Instructions  Programming language  
Program

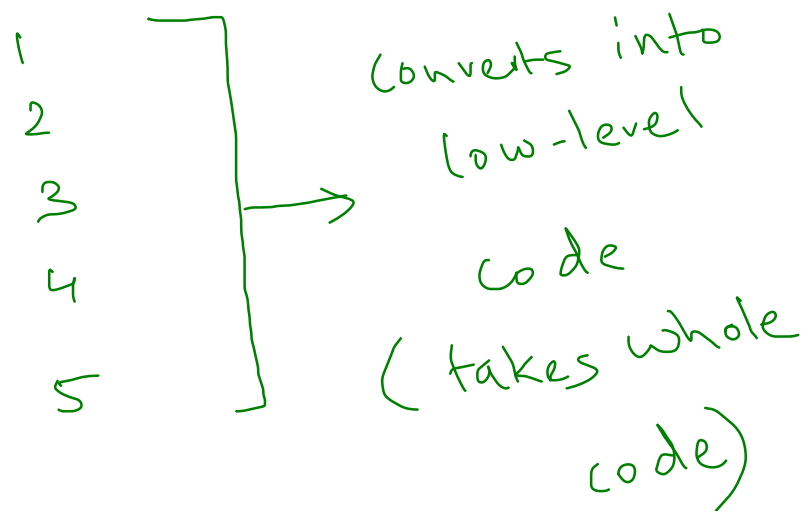
3. > CPU understands binary

4. > Provide Syntax and give instructions easily.  
↓  
easy to  
read and  
write

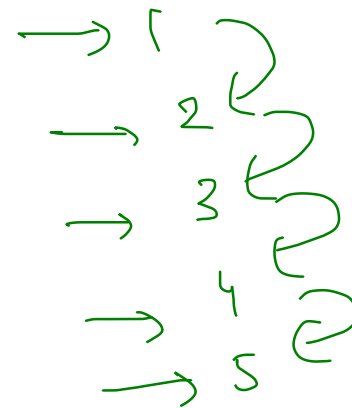
## 5) Programming language

NOTE - Compiler and interpreter helps to convert 'programs' → 'binary sequence.'

### Compiler



### Interpreter



Compiler → takes whole code, convert whole code into low level code that machine can understand.

Interpreter → → It goes line by line. Does not take whole code

→ Conversion → line by line

Why Python?

→ Easy to read, write & understand  
(simple syntax)

Python

→ concise (with the few lines of codes we can achieve a lot).