

# Algorithms, Variables & Operators



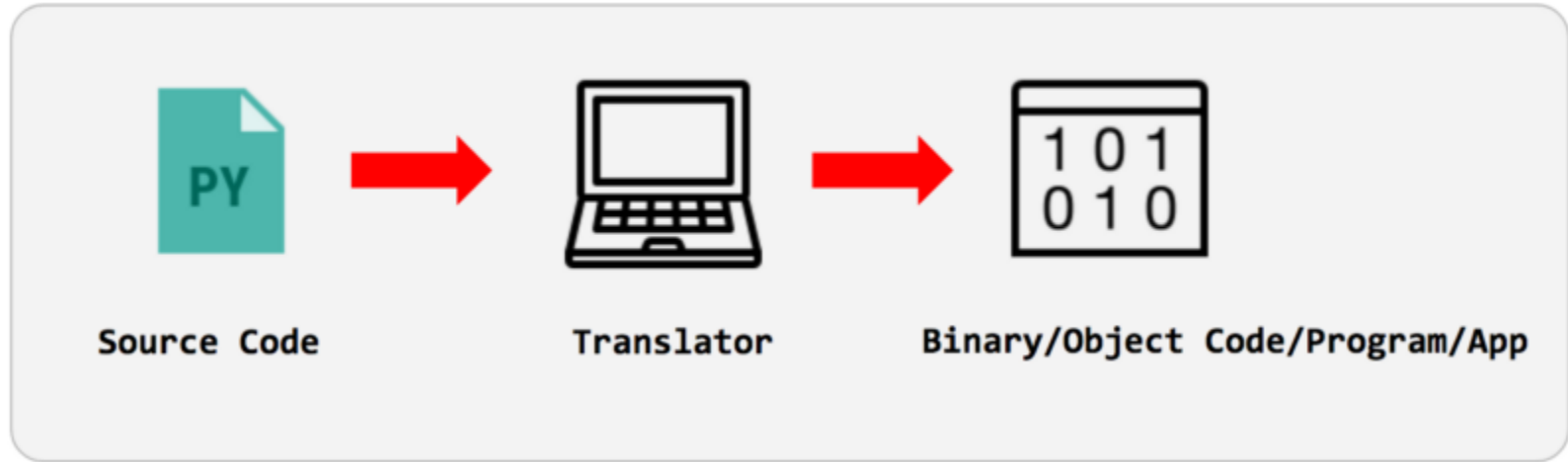
# What is Programming

- Programming is the act of instructing computers to carry out tasks - It is often referred to as coding
- **What is a computer program:** A computer program is a sequence of instructions that the computer executes.
- Analogies of Programming
- Programmer vs. Developer
- Office vs. Freelance
- Ex: Digitalisation of any problem that was previously done by hand / Excel

# Binary Calculations

Decimal	Binary
0	0
1	1
2	10
3	11
4	100
7	111
8	1000
10	1010
16	10000
20	10100

# Language Translators



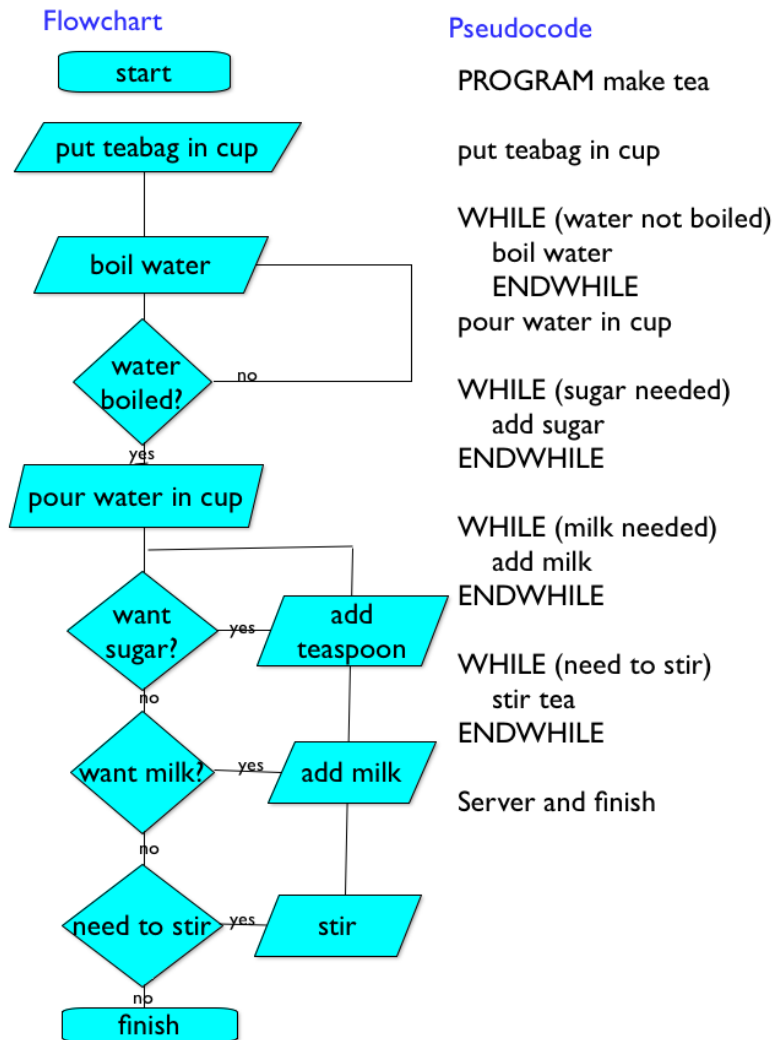
- **Interpreters:** execute line by line
- **Compilers:** execute whole binary file
- **Hybrids:** both, ex: Java
- **Assemblers:** Assembly to binary

# Algorithm

- “Most optimal solution to a problem”
- What is a Flowchart?
- What is a Pseudocode?

Let's solve:

- Ex1: by me
- Ex2: together
- Ex3: by you



# Variables and Operators

- +, -, \*, /, %, <> =, etc.
- VAR
- Declaration and Overwriting
- Compare to JavaScript and PHP
- True and False

Thanks!