Programming definition:
 - a process for informing the computer to perform a specific task.

Extra:

- Coding: part of programming.
  - It is the communication between a software program and computer hardware.
  - Those with converting the language into binary commands for the machine.

Programming Language:
provide a set of instructions by a programmer for a computer to perform a task.
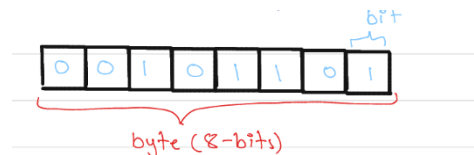
- Translate machine language 0s and 1s to human.

Type:

- **Low level:**
1- Machine Language:
   - Lowest level language.
   - Language of machine 0s and 1s, raw binary data.
   - Put into bytes, a group of eight bits.
   - Used in the past.

2- Assembly language:
   - Dash uses basic simples and English instructions to replace zeros and ones.
   - Easier than machine learning.
   - Example of the command and MOV format and AD to add.
   - Dash each assembly language is associated to a particular computer and sometimes to an OS (operating system).
- **High level:**
   - Abstracted, don't manage memory.
   - Statements use similar to English language.
     Ex: Java, C#, PHP
3- Shell scripting procedural programming languages:
   - Used to write scripts or small programs that automate tasks in an operating system.
   - Allows to run command, handle files.
     Ex: Dash, PowerShell, zsh, korn shell

4- Object oriented programming languages (OOP):
   - Program is an interaction of functions between objects.
     Ex: Python, Ruby, C++, Java

Extra:

5- Non procedural languages:
   - Tells the computer what to do rather than how to do it.
   - Simpler than structured languages.
     Ex: SQL used to query databases.
6- AI languages:
   - Computer programming languages suited for creating and implementing AI algorithms and models.
     Ex: Python (most popular), R, C++
7- Front end languages:
   - Concerned with the user aspect of software
   - Deals with the text, colors, buttons, etcetera
     Ex: HTML for structure content, CSS responsible for style, JavaScript makes it interactive
8- Back end languages:
   - Deal with storage and manipulation of the server side of the software.
     Ex: JavaScript, PHP, Java, python