Levels of computer languages:

Types of languages:

There are three main kinds of programming languages:

- 1) Machine language
- 2) Assembly language
- 3) High-level language
- 1) Machine language: it's the language of machines, consisting of bits (1s and 0s) put together into chunks likes bytes, a group of 8 bits, and Lots of other larger sizes. It's highly unlikely you will ever have to write In machine language, but in the old days, we used to plot 1s and 0s on Graph paper and then type them in, to make pictures appear on the Computer screen.

2) Assembly language:

Mnemonics

- Assembly language is a little easier than machine language, but not much it uses more convenient numbers, symbols, and abbreviations to describe the huge strings of 1s and 0s, make it both easier and more memorable to type in instructions.
- The computer knows that certain strings of numbers are commands, so assembly language lets you use English-like strings instead of numbers to refer to those.
- Plus, with assembly language you have access to all kinds of resources to organize your programming code.

• Then you tell a program called an <u>assembler</u> to your instructions, which just means they get turned into 1s and 0s for you.

3) High-level languages:

- The third type of language are the <u>high-level languages</u>. These languages are use <u>English-like statements</u> and <u>symbols</u>, and are the <u>independent</u> of the type of computer you are using.
- You can even put in lots of English labels and comments to help remember what the instructions are doing.
- This makes your programs much easier to read and modify. There are far more high-level languages than any other type of computer language, each one tailored for a certain kind of use.
- Compiler high level language to low level language.

Examples: java, c++, python Etc.