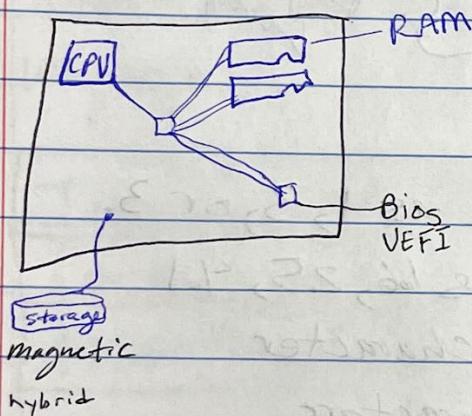


William Prado  
06/09/2025  
Python.

code + result of the code...

Monday 9th - Chapter 1 - Programming & Python  
10th - Chapter 2 - Input Processing & output  
12th - Chapter 3 -  
13 - Chapter 3 -



### Interface

data  
SCSI  
SATA  
NVMe-m2

OS Microsoft Win7, Win8, Win10, Win11  
Server 2012, 2016, 2019, 2022

Apple macOS, iOS

Linux → Red Hat  
→ Debian → Ubuntu, Mint  
→ Android

Google: Chrome OS

Mgt → utility, Services, terminal, sftw

Apps: Browser: Firefox, Opera

Office 365, W, E, P  
Teams

Libre  
Google

## Lower-level languages.

machine language

Assembly language

Mnemonics - short words.

YTB : Computer Science Basics: Programming languages  
Intro to Programming for beginners.

What is PC programming  
Input → logic → output.



Machine Language  
Binary

Assembly Language

Compiling Languages

- \* Different Computers
- \* Extra preparation time
- \* GAME O/S
- \* FAST!

Interpreters Language

- \* Error "start over"
- \* slower, lets you see results
- \* correct mistakes line by line

Higher Programming Languages

Data Types

- Integers: whole # such as 1, 3, or 3.
- Float: Decimal such as 1.6, 2.5, 4.1
- Characters: ANY ASCII character
- String: An array of characters
- Boolean: True or False

Loops:

If, for, while

Functions of Methods:

- Mini programs w/in a program.

Classes/Objects:

- Reusable building blocks of a program.

YTB Intro to x86 Assembly language (Part 1)

Book Intel ~~x86~~  
Intel x86

AEF

10110110  
01100101  
11000011

YTB What is assembly language (Part 1)



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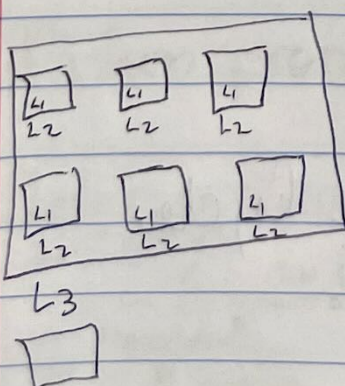
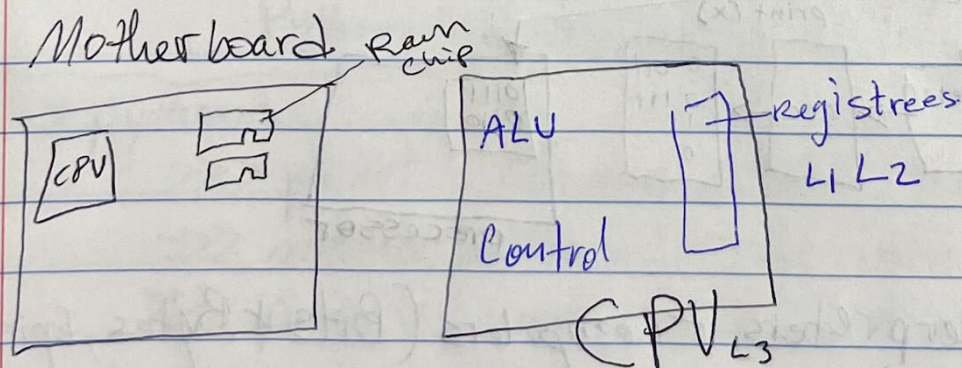
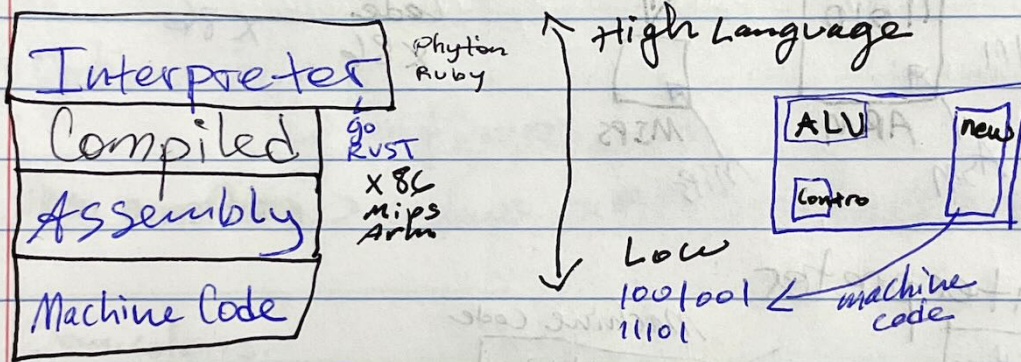
Ubuntu  
Debian

→ sudo apt install nasm

a register a spot in a memory ship.

\* Text Machine Languages 1 & 0. Binary.

YTB What's the difference btw interpreter & compiled language



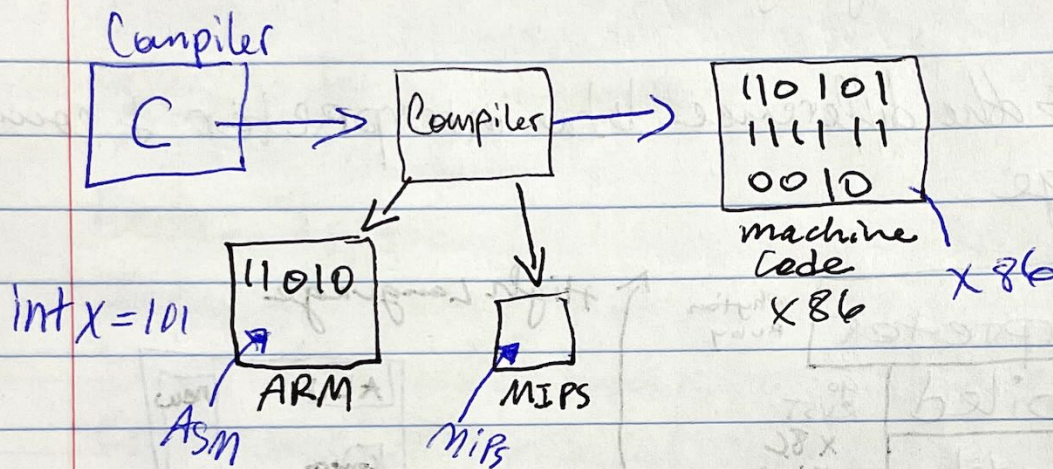


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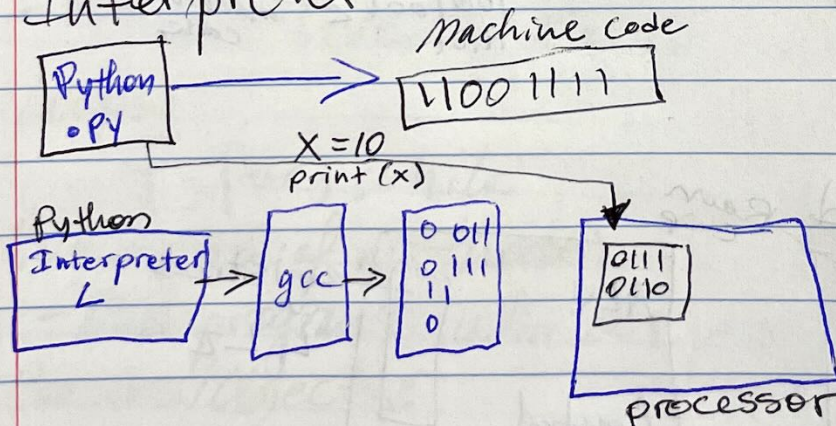
Assembly  $\rightarrow$  Machine code

ASM.  $\rightarrow$  Machine Code

ADD \$S0 \$S1 \$S2  
 $\downarrow$   $\downarrow$   
101101 1111 1110 1101



Interpreter



✓/TB. Interpreters & Compilers (Bits & Bytes, Episode 6)

Inter = between.

Program Development Life Cycle  
define the problem  
Design the program



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Bendocode "fake code" is a sentence.

Terminal

```
> py >>> .py
```

```
> notepad testprogram.py
```

```
> py testprogram.py
```

= Option idle

> Configure Idle

~~Use notepad~~ > windows > ~~At~~ Start up > open Edit Windows

Test

Semicolons.

indentation

Python indentation is VERY important.

LabEx : > python3

```
>>> print("Welcome to LabEx Space Academy!")
```

```
>>> mission_name = "Cosmic Python"
```

```
>>> print("Current mission:", mission_name)
```

Python prompt (>>>)

Integers are whole numbers without decimal points.

```
>>> age = 25  
>>> print(f"I am {age} years old.")  
I am 25 years old.
```

```
>>> type(age)  
>>> class 'int' >
```



about naill/cu  
2506/100/20

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Floating-point #

```
>>> height = 1.75
```

```
>>> print(f"My height is {height} meters.")  
my height is 1.75 meters.
```

```
>>> type(height)  
<class 'float'>
```

~~Height~~

Height is a floating-point number, represented by the float data type in python.

Note

**\*\*** operator is used for exponentiation (raising to a power).