



## Terminologies:

1) Architecture

x86, x64, amd64

armv7, armv8

AT&T, IBM, PowerPC

} Instruction set Variants

2) Compiler

Provided by the Chip Manufacturer.

3) Assembler

↳ C

↳ Python

} Compiling/  
Interpreting

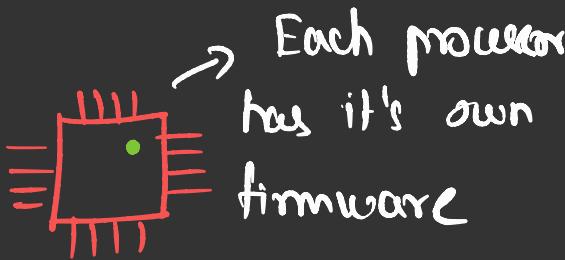
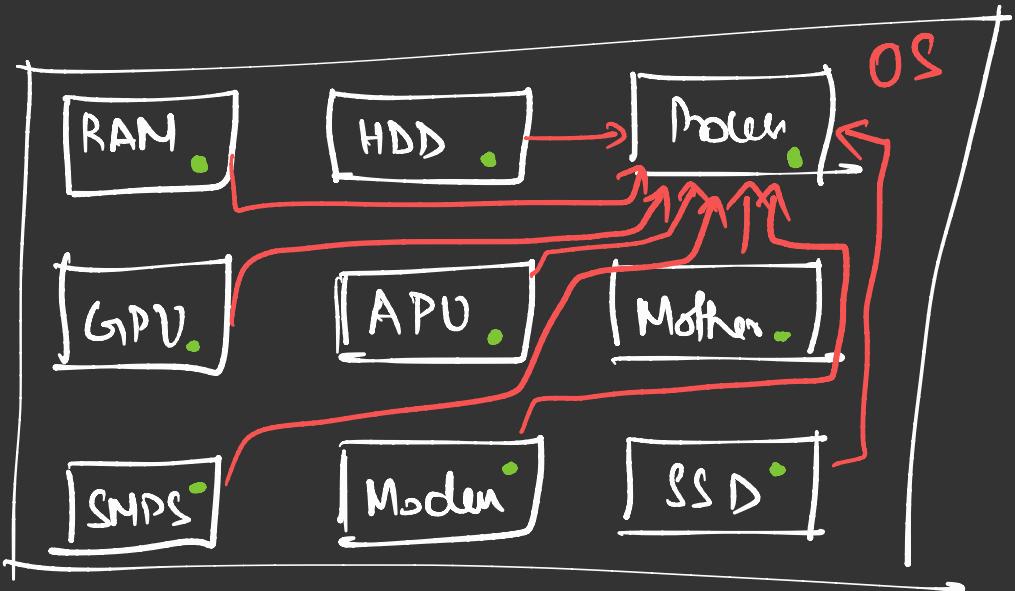
Assembly  
Code

Assembler

(Translator)

# What defines an Architecture?

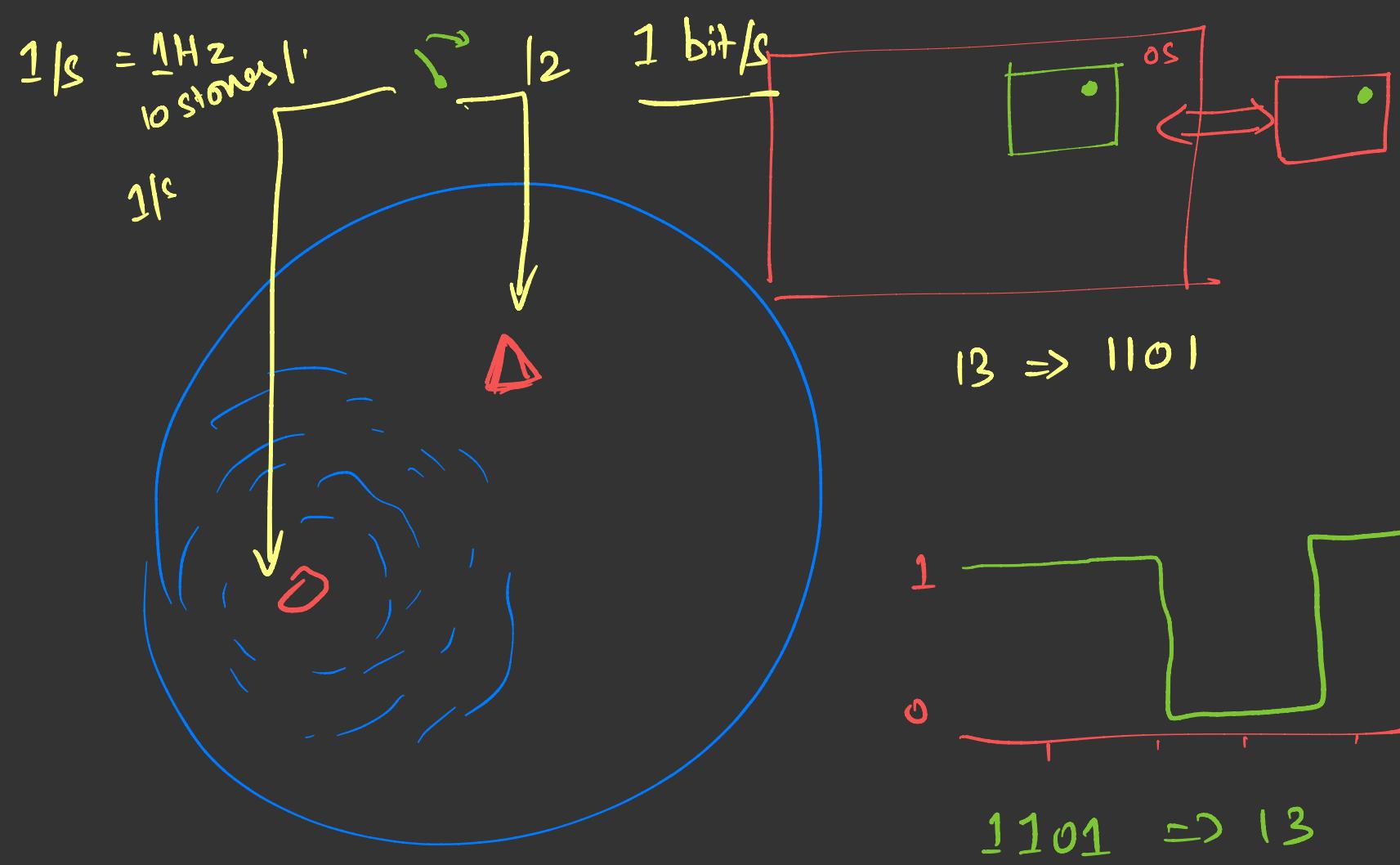
→ The chipset & it's firmware defines the architecture.



Processor Driver

The purpose of this firmware is to let other hardwares give instructions to the processor.

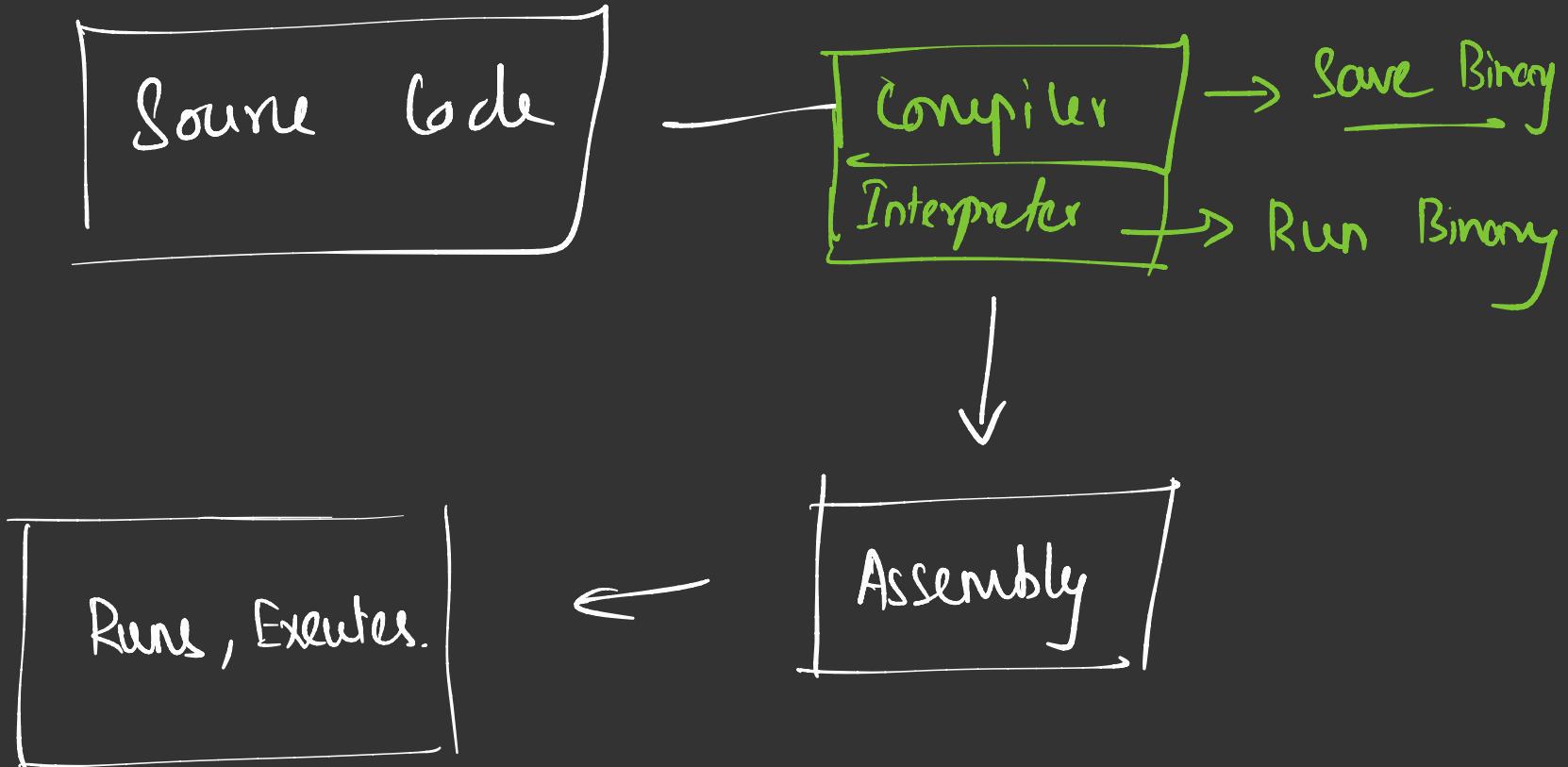
The way you talk to it is called "Instruction Set"



- The language in which the OS & Processor talks is called Assembly Language.
- The keywords of Assembly Language are provided by the Instruction Set created by the chipset manufacturer & also programmed them into the processor firmware.

Core Syntax :      OPN      DEST , SRC

# How a Source code runs:



## Compiling:

→ When you compile a code, the compiler will translate the source code into a machine understandable assembly code with the help of an assembler. Then it will save the translated code into an executable file.

→ To run the code, all you need to do is run the executable file.

## Interpreting :

- When you run an interpreter like python it will translate the code line by line & run them line by line, so that there is no process of saving an executable file.
- When you want to sell your software, you need to ship it with the sourcecode.

## Homework :

- Watch this video again
- Study different architectures.