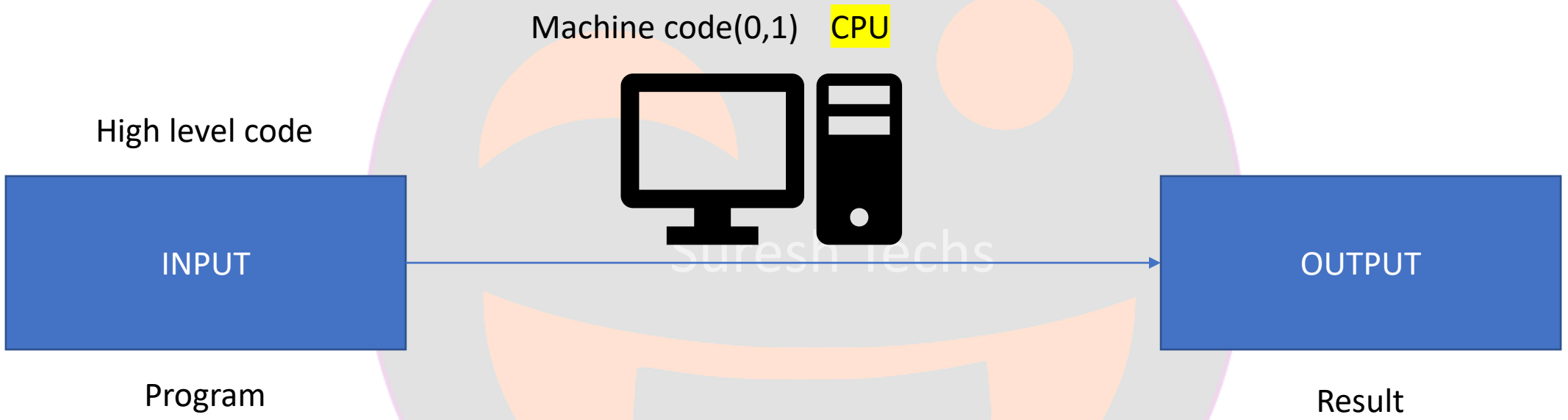
Python

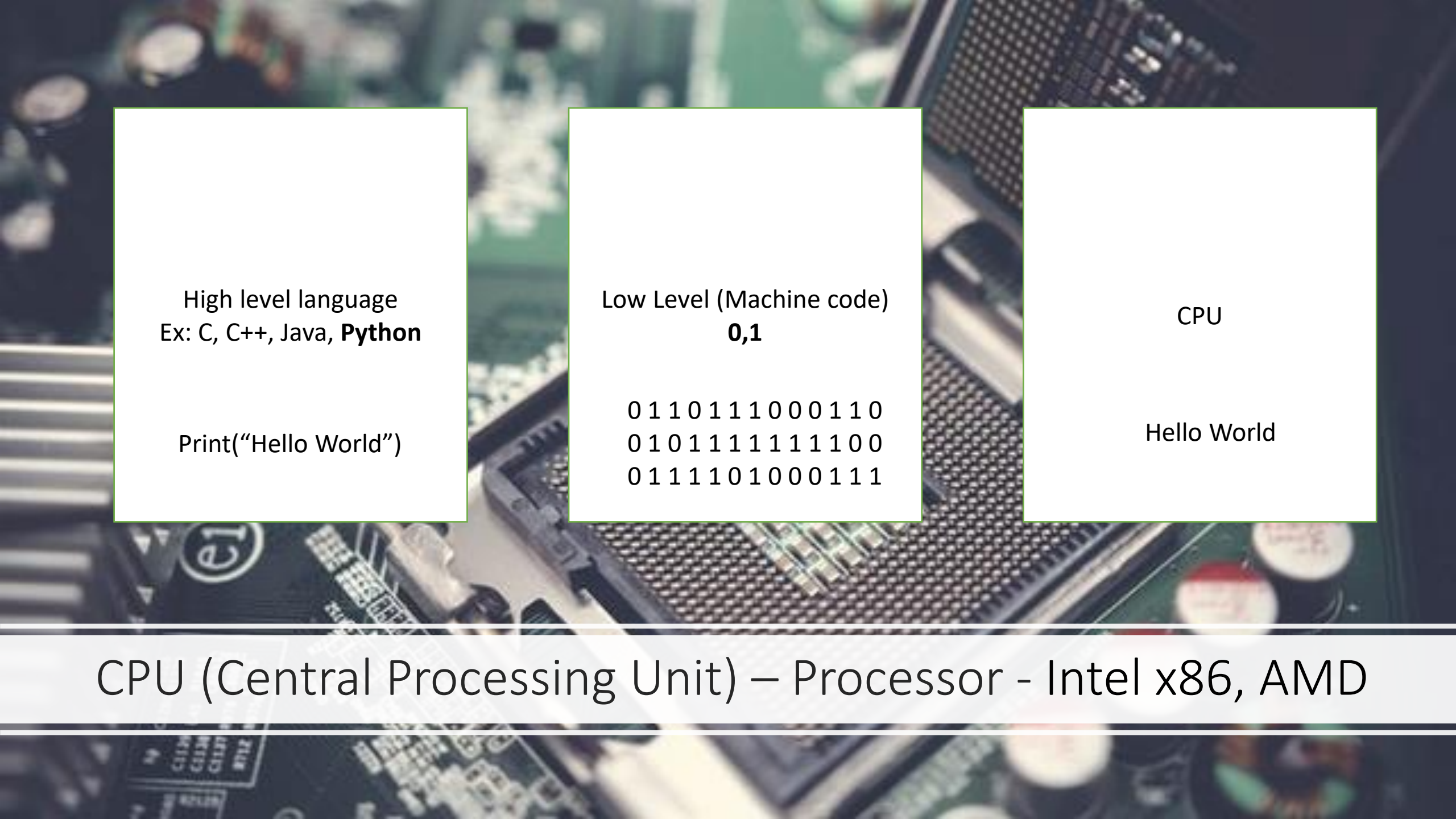
Internal working & First python program

Chapter 3

Suresh techs

Program Life Cycle





High level language
Ex: C, C++, Java, **Python**

Print(“Hello World”)

Low Level (Machine code)
0,1

0 1 1 0 1 1 1 0 0 0 1 1 0
0 1 0 1 1 1 1 1 1 1 0 0
0 1 1 1 1 0 1 0 0 0 1 1 1

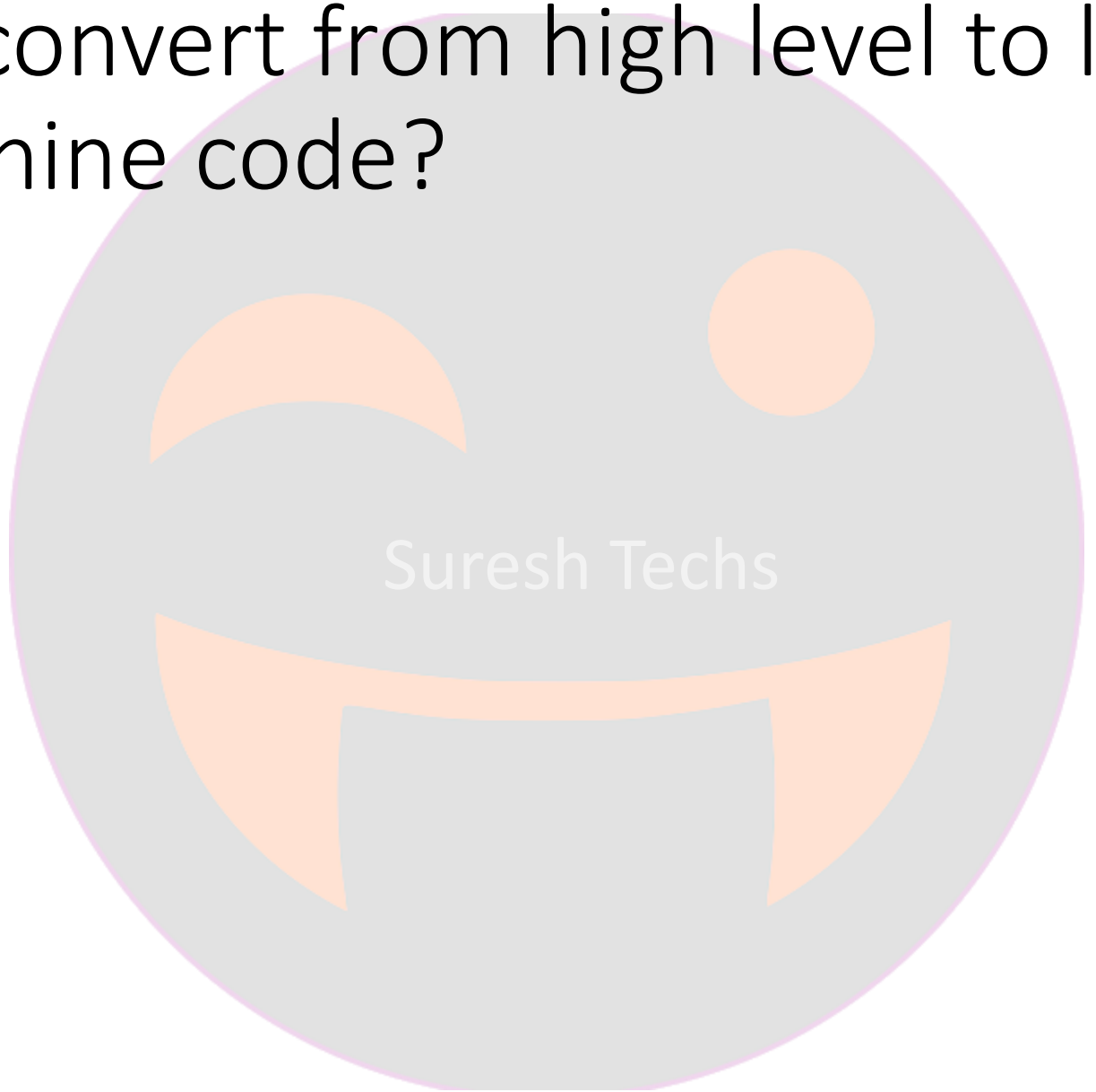
CPU

Hello World

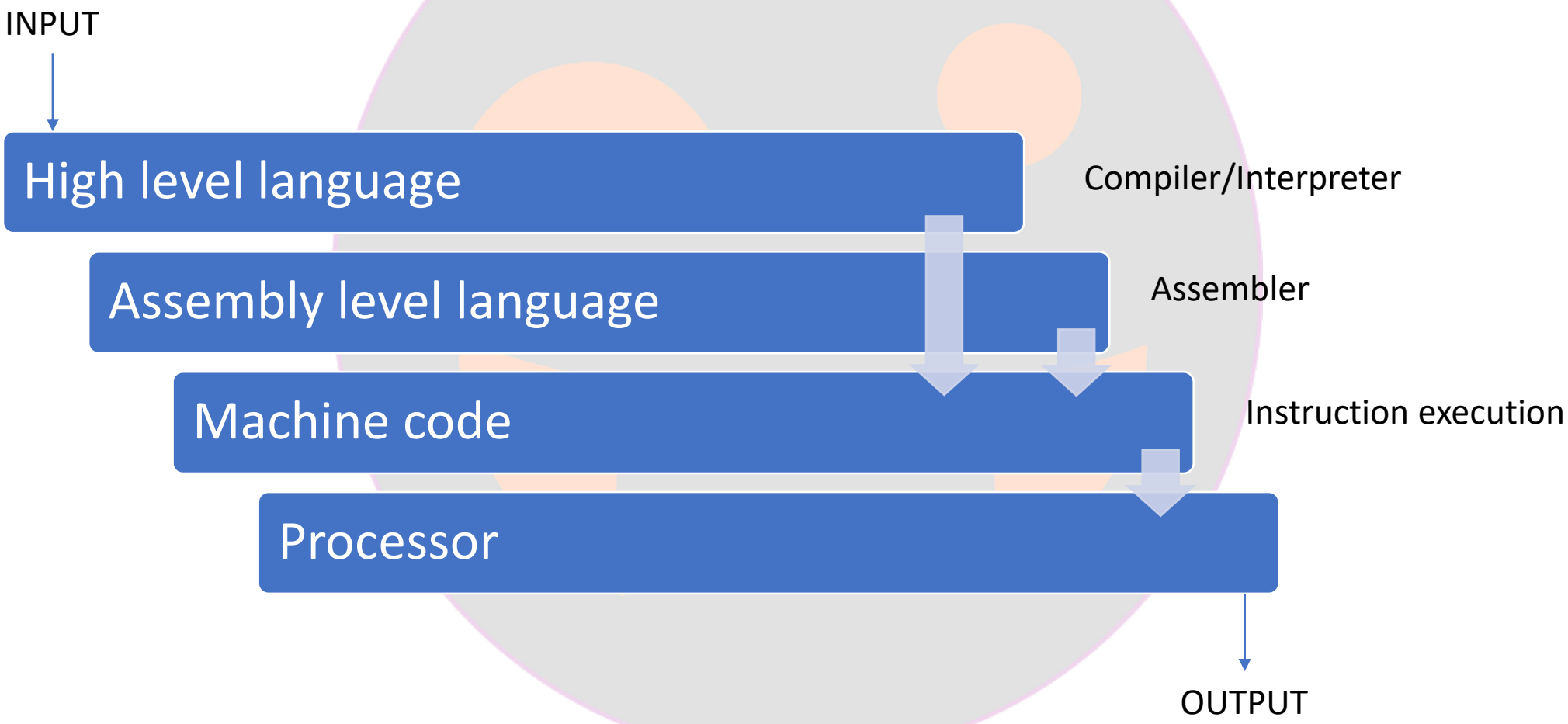
CPU (Central Processing Unit) – Processor - Intel x86, AMD

Who will convert from high level to low level/machine code?

- Compiler
- Interpreter
- Assembler
- Translator



Code translation



Definitionss

- Compiler: converts high level language to machine code in one session
- Ex: c, c++, java etc.

- Interpreter: converts to machine code line by line(statement by statement)
- Ex: **Python**, Perl, Matlab etc.

- Assembler: Converts assembly language into machine code

Note

- Translator: Generic term that could refer to a compiler, assembler or interpreter. Anything that converts high level code into another higher level or lower level.
- **So, compilers, Interpreters and assemblers are also known as translators.**
- All of these translators are programs themselves.

Our first program

- IDLE(Integrated Development & Learning Environment)
  - Python Interpreter
- IDE(Integrated Development Environment)
  - **Notepad++,** Pycharm, Visual studio etc

- **print() function in python will let us write to console output**

Using IDE

- Open any IDE (ex: notepad++)
- Write program
- Save as hello.py(any name of your choice)
- Execute it(give it to the interpreter)

Congratulations on your first python program

- But it is very basic program, we will see complex programs soon after completing basics of python.

- Will use notepad++ as our IDE for our next programs

Difference between compiler and interpreter

COMPILER	INTEPRETER
Compiler converts entire source code of a programming language into machine code	**Interpreter takes the source code and runs it line by line translation each line as it comes to it**
Compiler takes the large amount of time to analyze the entire source code but the overall execution time of the program is faster	Interpreter takes less amount of time to analyze the source code but the overall execution time of the program is slower
Ex: C, C++, Java	Ex: Python, Perl, Matlab

Is python scripting language or programming language?

- Scripting language: A scripting language is a programming language that is interpreted
- All the scripting languages are considered programming languages.

- Python is **scripting, general-purpose, high-level, and interpreted programming language**.

What have we learned?

- How computer understood our program?
- How our program is converted into 0’s and 1’s
- Compiler and interpreter difference(Interview)

What next

- **Will see few interview questions based on our first three chapters**

PYTHON

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చిటికలో వచ్చేస్తా

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