Python Programming @ Sunbeam Infotech

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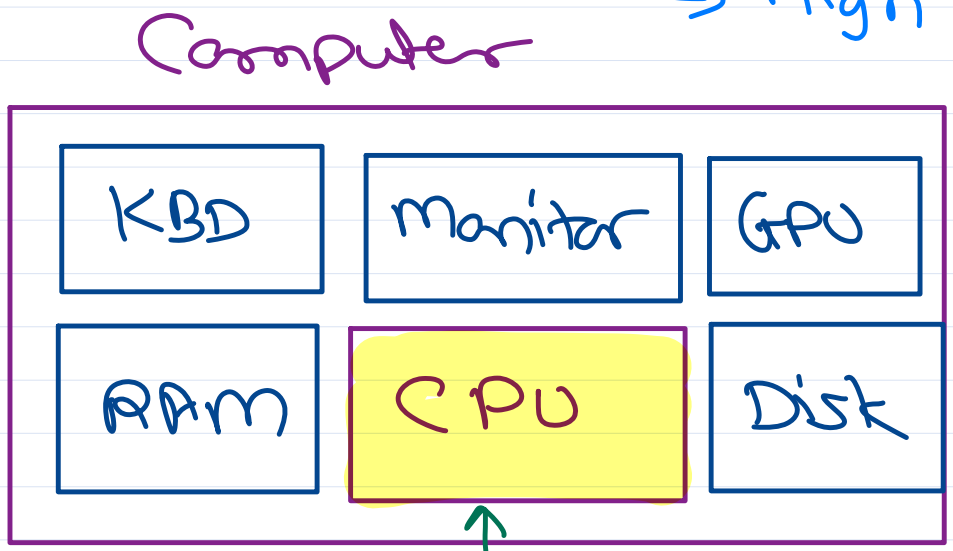
Low level vs High level programming language

Python → Programming Language

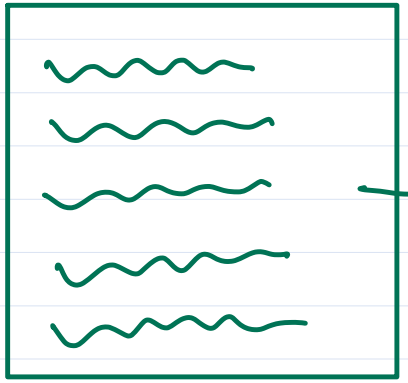
① Program ?

② Language ?

③ How ?



Program



(program is a set of instructions)

Portable, Human understandable

Converted to machine language by compiler or interpreter.

e.g. C, C++, Java, Python, C#, ...

→ Low level → understandable by CPU.

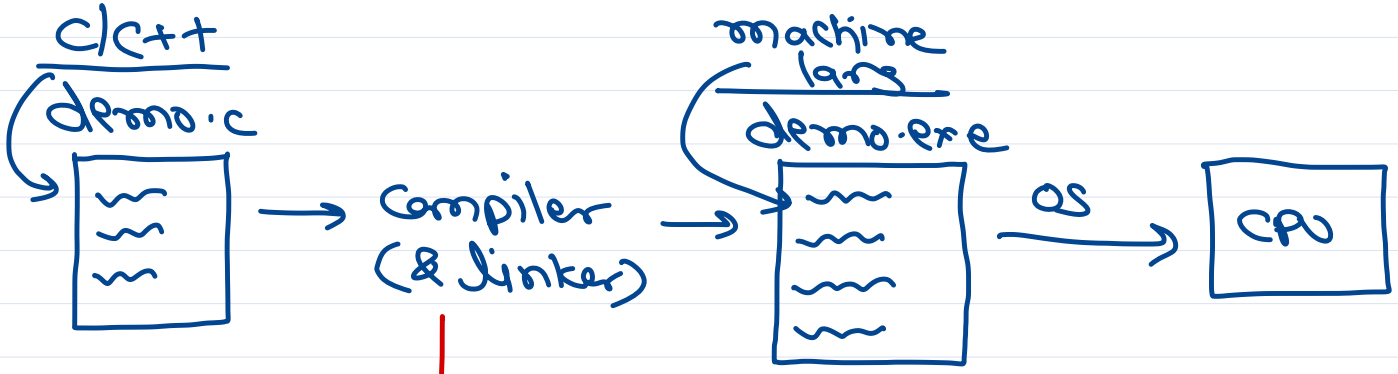
e.g. machine lang (binary) - 0101101100

e.g. assembly lang (text) - opcodes (ADD A, B → operands)

- arch/CPU dependent.

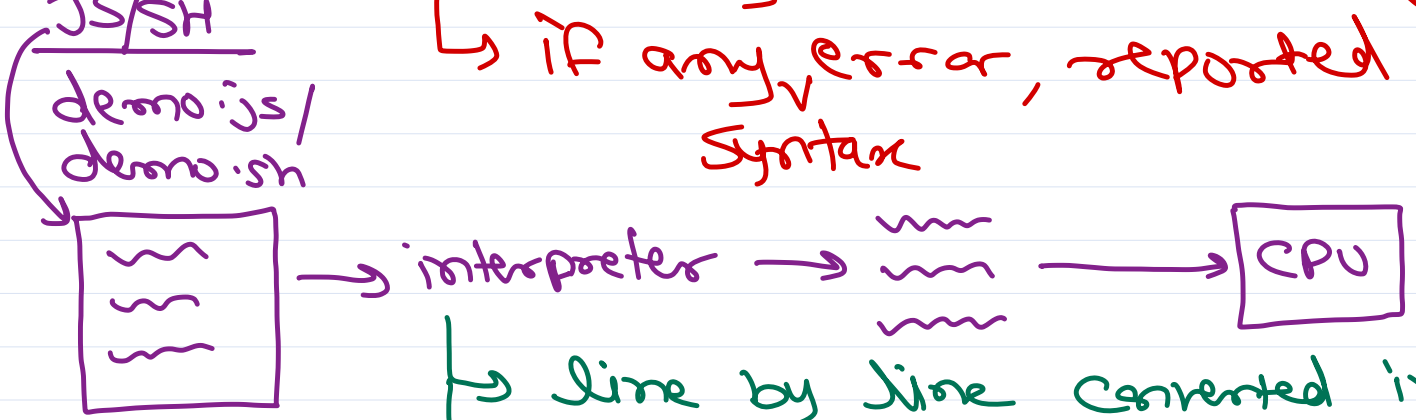
→ High level

Compiled language vs Interpreted language



* Faster execution
* Compiled languages
  - Harder than scripting

- whole program converted to low level lang
- creates an executable file → executed on CPU.
- if any error, reported during compilation (not exec)



* Slower execution
* Scripting languages - Easier

- line by line converted into machine lang & executed.
- no separate executable created.
- if any syntax error, reported while executing that line.

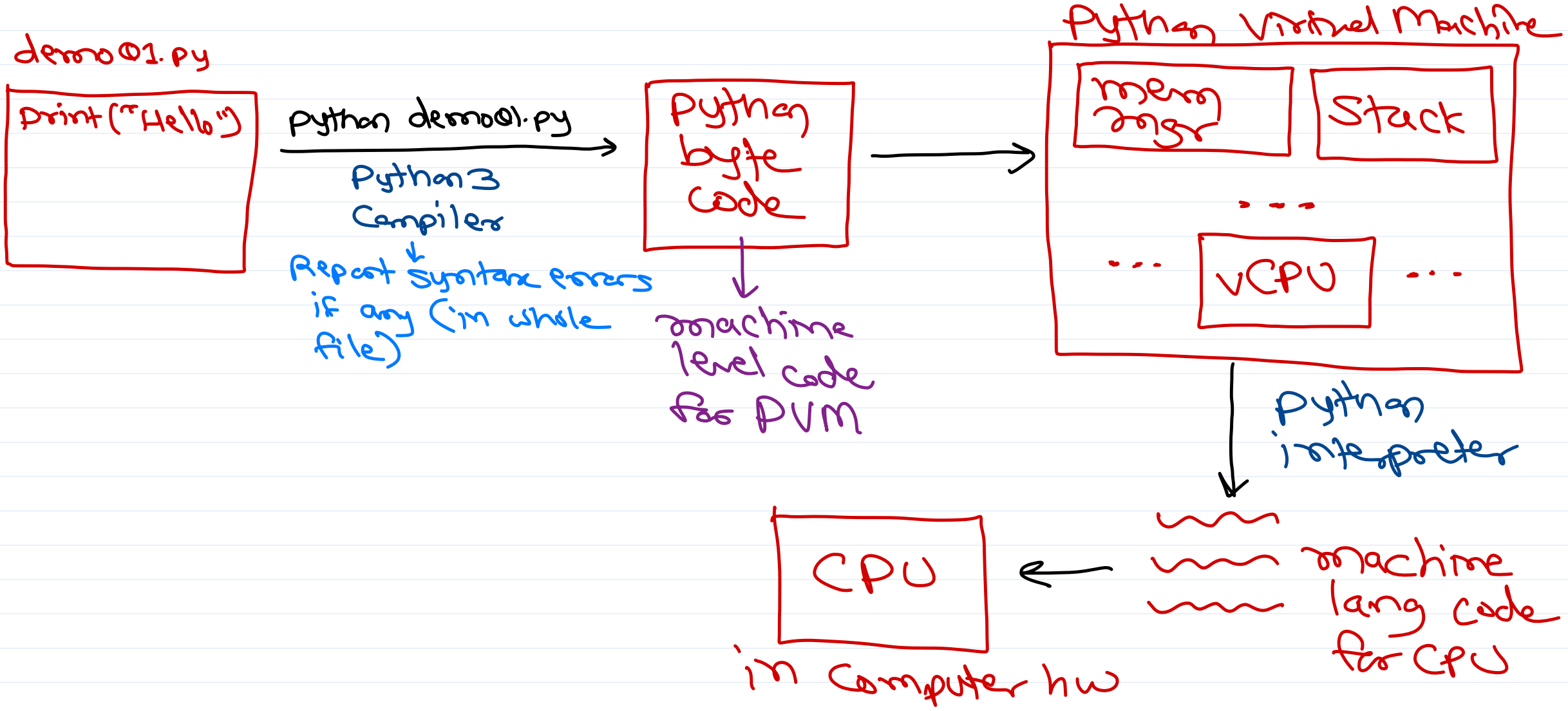
Python language features

* Mixed = Compiled + Interpreted
  e.g. Python, Java, ...

Python language

1. General-purpose
2. Scripting lang
3. Procedure oriented lang
4. Object oriented lang
5. Functional programming
6. Aspect oriented programming
7. Dynamic typing
8. Garbage collection
9. Free & open source (PSF)
10. Compiled + Interpreted
11. Many implementations

Python program execution



Thank you!

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