

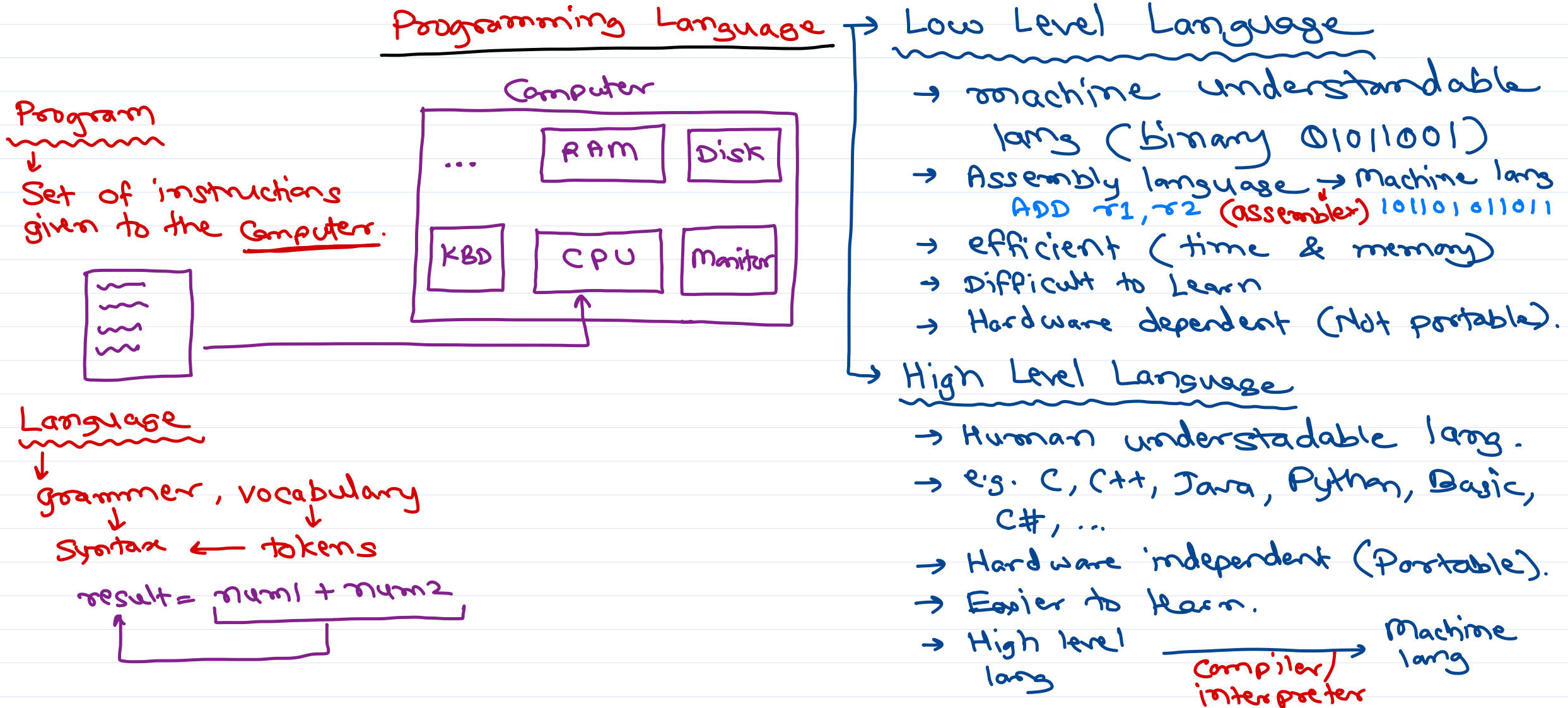


Python Programming @ Sunbeam Infotech

Trainer: Nilesh Ghule

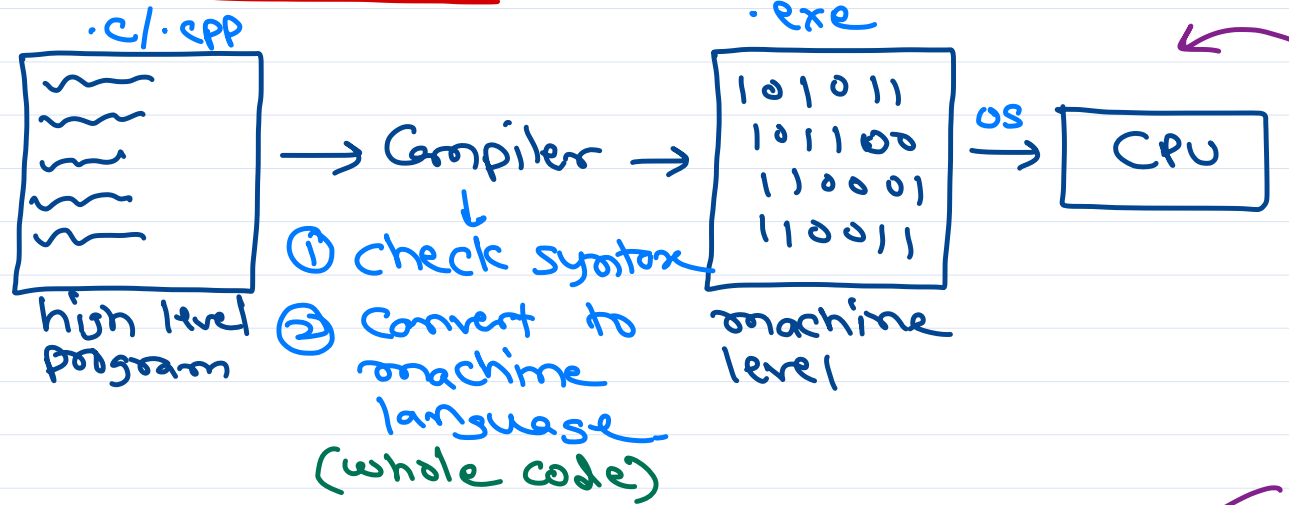


Python Programming Language



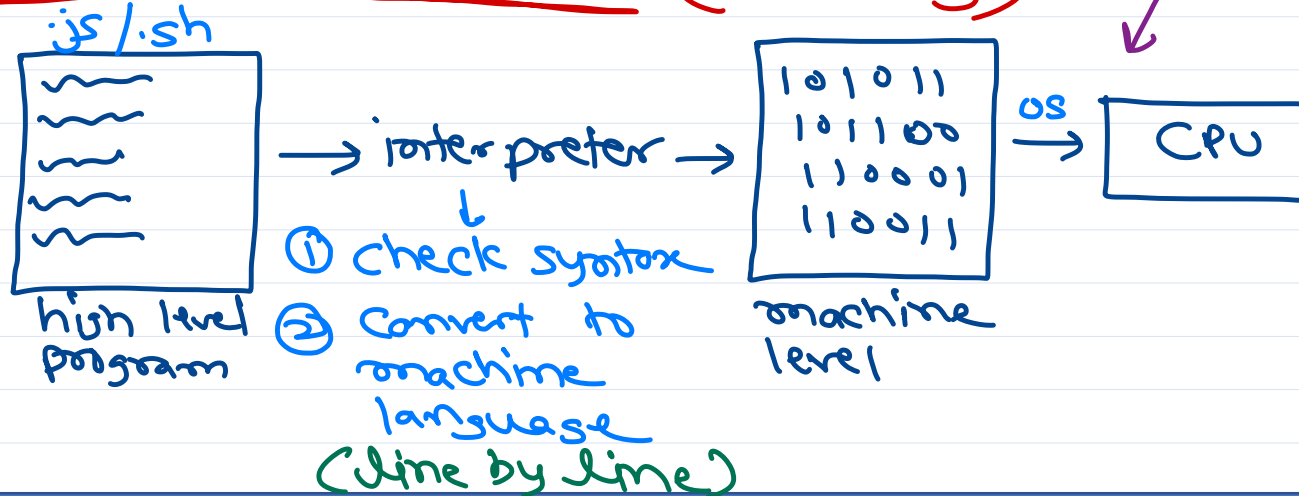
Compiled language vs Interpreted language

Compiled Language



* More efficient / faster execution
* more difficult than interpreted language
* e.g. C/C++ ...

Interpreted Language (Scripting)



* Slower execution
* much easier to learn/code
* increases productivity
* e.g. JS, shell scripts, ...

Python/Java
↳ interpreted + compiled



Python program execution

demo01.py

```
print("hello")  
~~~~~  
~~~~~  
~~~~~
```

python demo01.py
(Python Compiler)

- ① check syntax
- ② Convert to byte code (IL).

> python -m py_compile demo01.py

↳ create demo01.pyc (byte code)

> python demo01.pyc

↳ run Python byte code

demo01.pyc

Python
byte
code

PVM
machine
level lang

Python Virtual Machine

memory

Stack

...

.. VCPU ..

CPU
(Intel / AMD)

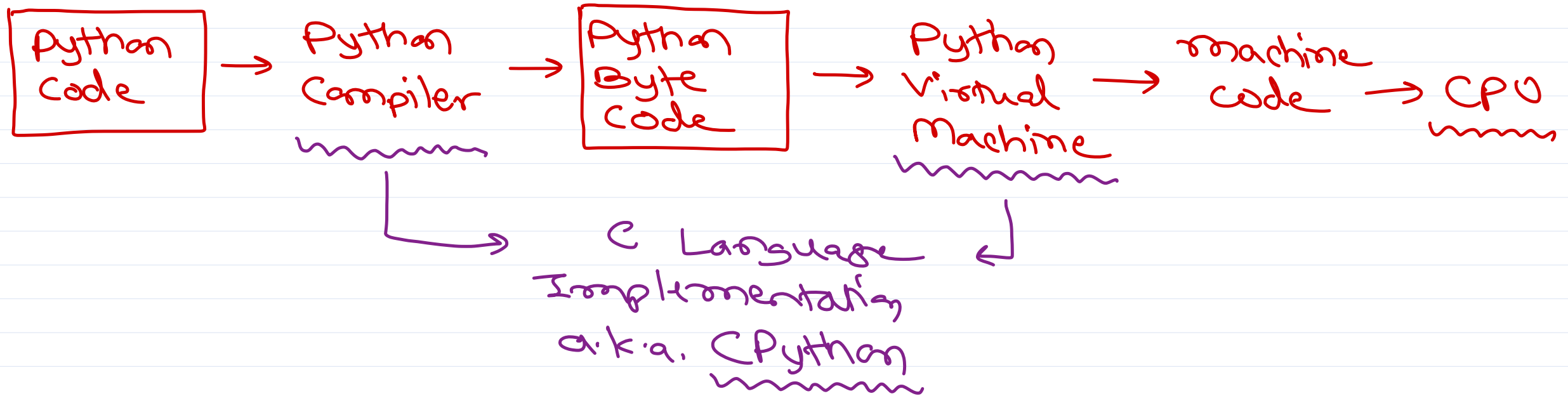
010101
110011
0000



interpreter
(converts byte code into
CPU machine lang)



Python implementations



① CPython → C (Standard & most used Python impl).

② JPython → Java based

③ IronPython → C# based

④ MicroPython → C based for MC.

⑤ PyPy → Python based





Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>

