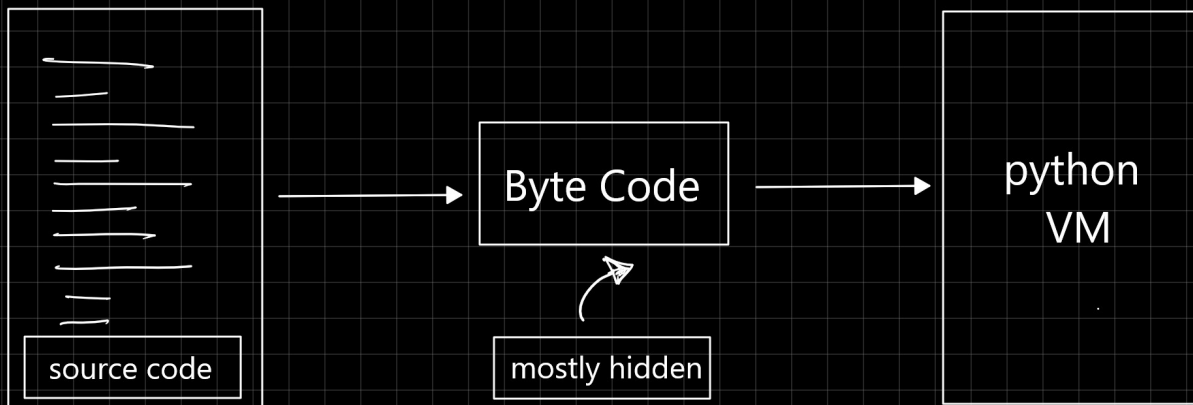


# Internal working of python

> python app.py



## 1. Compile to Byte Code

→ Low level & platform Independent

→ Byte code runs faster

• **pyc** → compiled python (Frozen Binaries)

-- **pycache** --

Source change & Python Version

hello-abhi.cpython-312.pyc

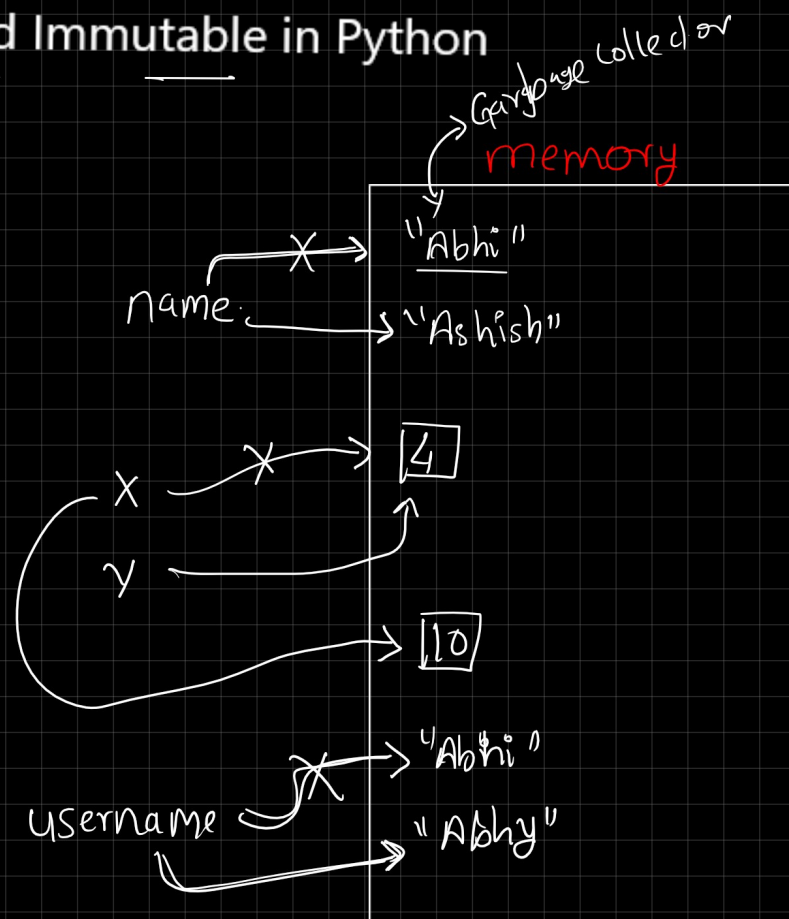
→ Works only for imported files.

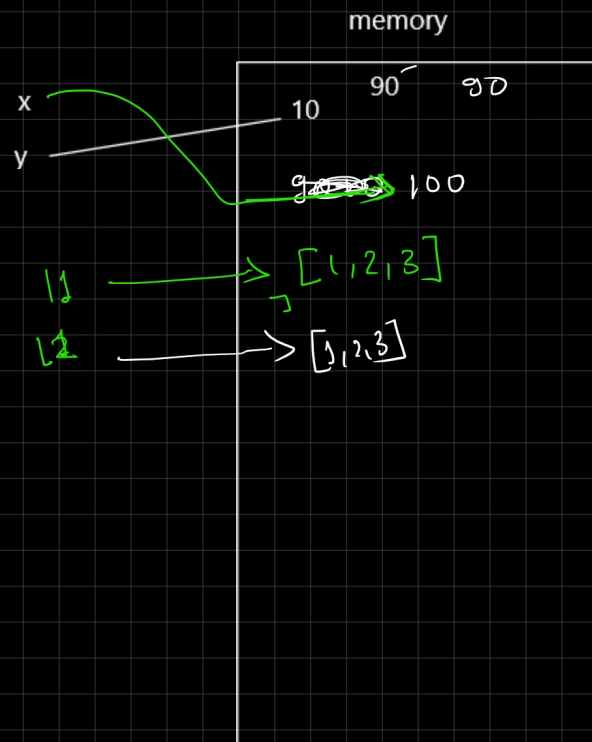
→ Not for top level files.

## 2. Python Virtual Machine (PVM)

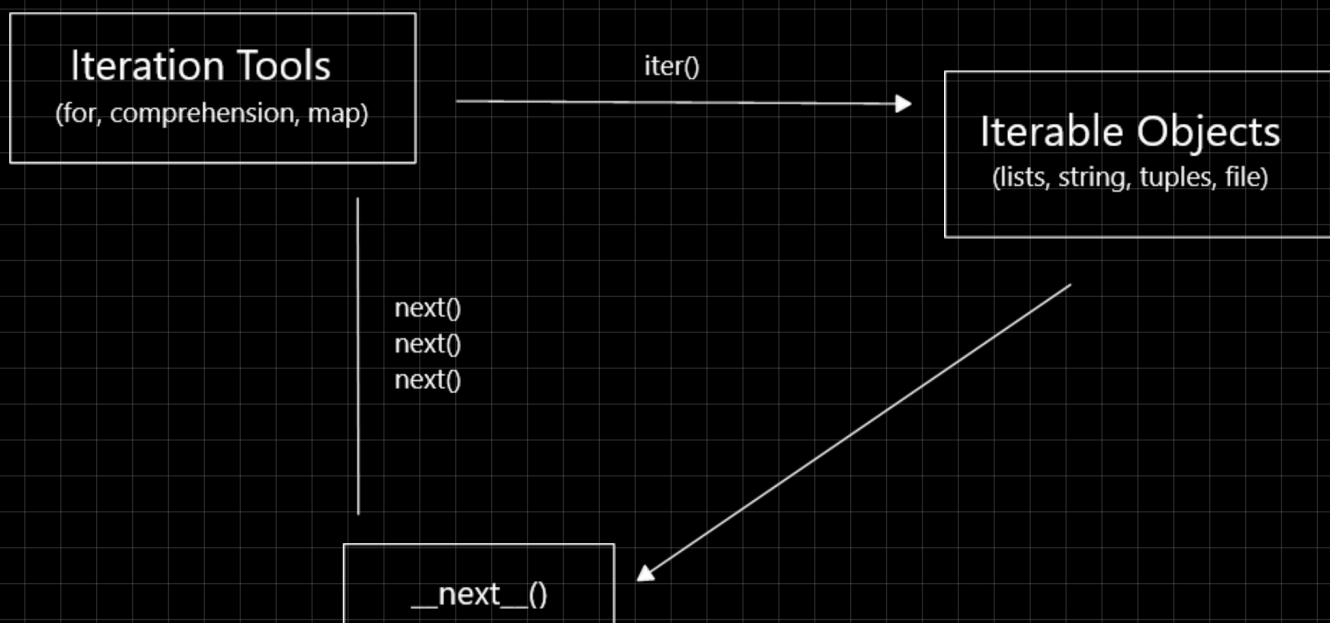
- Code loops to iterate bytecode
- Runtime engine
- Also known as python interpreter
- Bytecode is not machine code.
- Python specific interpretation
- cpython, jython, IronPython, Stackless, PyPy
  - ↑  
standard implementation

## Mutable and Immutable in Python





## Internals of Loops



# Functions in Python

Function is a block of code which only runs when it is called.

Function has a name for identification.

```
def functionName(args):  
    # function body  
    # code
```

## Function Definition Vs Function Call

```
def greet():  
    print("hello, good morning")  
  
greet()
```

Once function is defined, it can be called any number of times.

## Ways to define a function

- 1) Takes nothing, return nothing
- 2) Takes nothing, return something
- 3) Takes something, return nothing
- 4) Takes something, return something

## Variables

### Global Variable Vs Local Variable

```
name="abhi"  
def greet():  
    print("hello, good morning")
```

```
def greet():  
    name="abhi"  
    print("hello, good morning")
```