Syllabus

Part 1

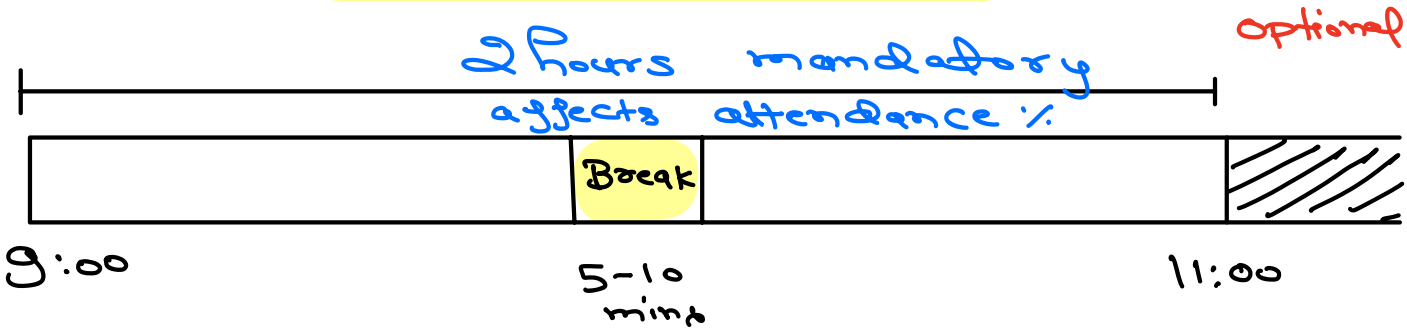
Python Refresher

- 1
- 2
- 3

Part 2

- Time and Space Complexity
- OOP 1 and 2
- Functional Programming 1 and 2
- Exception Handling
- File Handling

Class Structure



To - do

- Assignments (V important)
- Homework (optional)
- Extra Questions (optional)

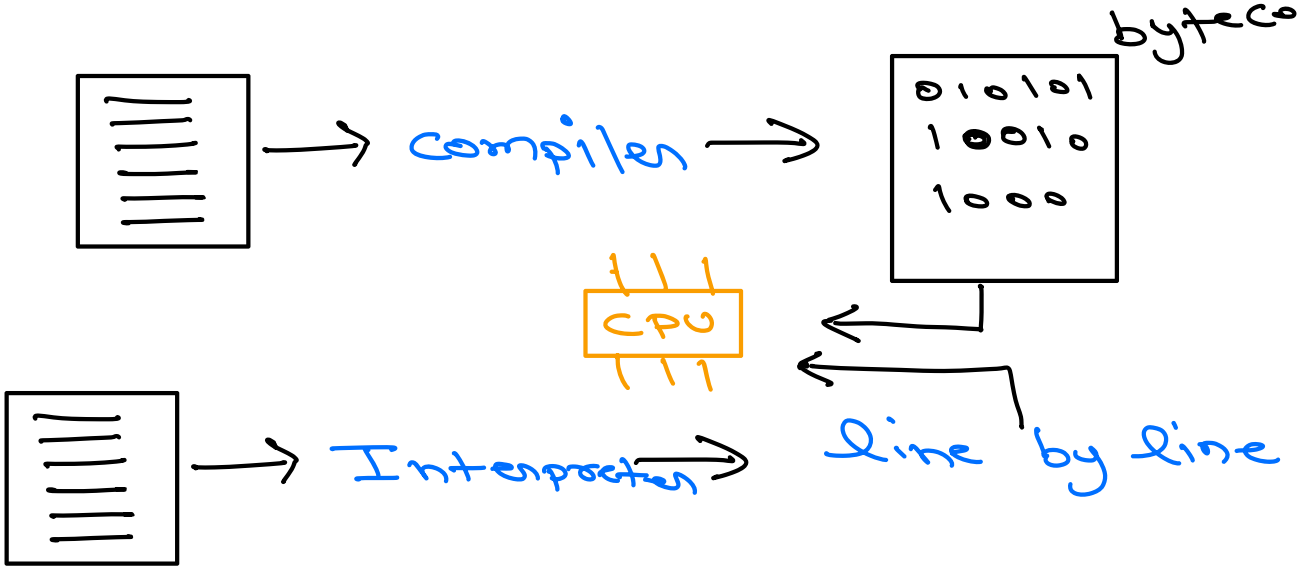
* After Every 6 Session we will have a Problem Solving optional Session to discuss all Queries

- remember Assignments impact PSP which is one of the key metric used by hiring managers along with attendance %

* PSP = Problem Solving %

.pyc

- Compiled + interpreted



~~Primitive Data types~~

Object → FCC

str int float bool None Complex

1) First Class Citizen
   - Everything in python is object with equal rights
   - We can pass them to functions as argument, return as output

Object

FCC

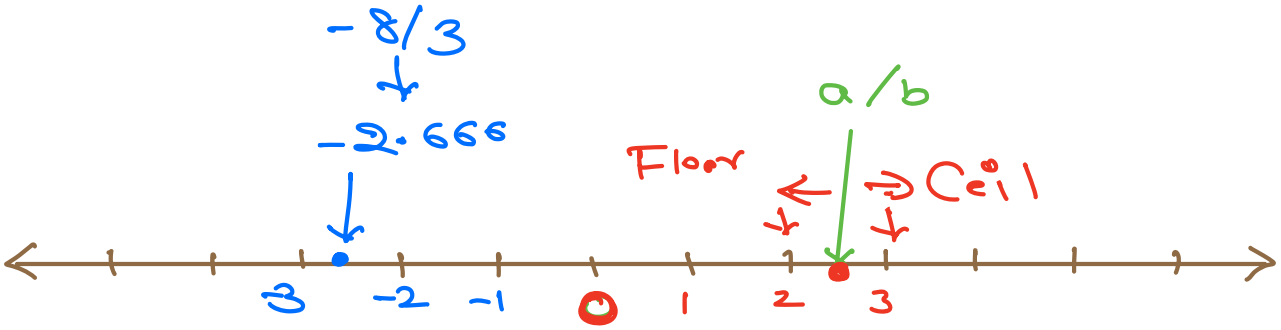
float bool None Complex Functions Class

HOF

Decorator

2) Everything in python is instance of object Class

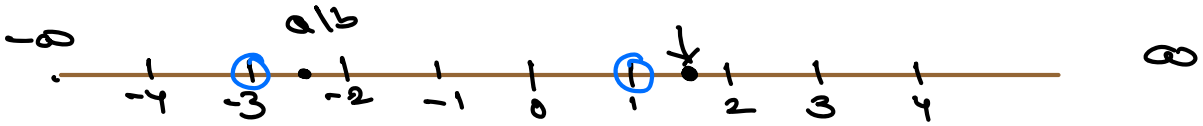
instance . function ← Method



a and b

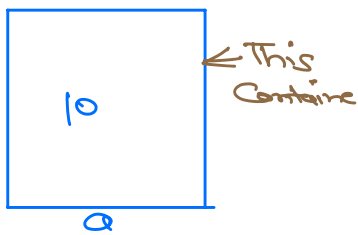
a // b

a \ b vs a // b



Identifiers: Are the names that we give to our Variables

a is our identifier here a = 10



Rules

① Every identifier should start with alphabets or _

② Other characters can be alphanumeric or _

Inbuilt Data Structure

1. List
2. Dictionary (Hashmap)
3. Set (Hashset)

} mutables

4. Tuples

Apart from L, S and D every thing else is considered "Immutabiles"

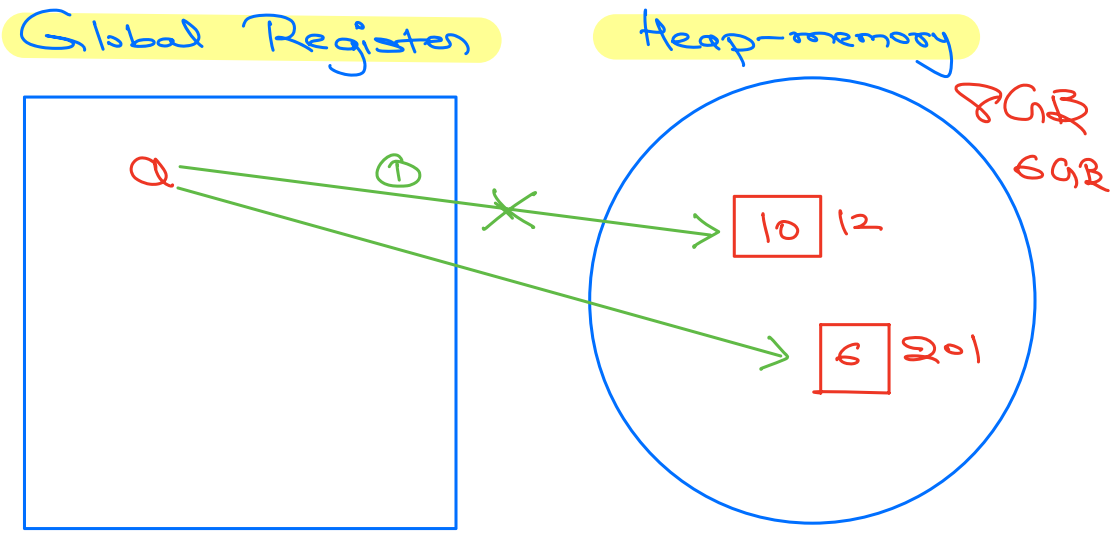
Mutable vs immutable

* Mutables: Whose value can be changed
* Immutables: Whose value cannot be changed.

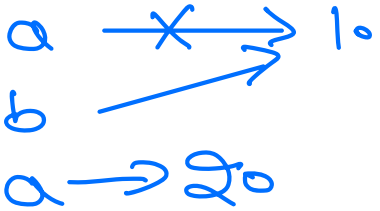
Mutable	immutable
List	Str
Set	int
Dictionary	float
	bool
	tuple
	etc

a = 10 ①

a = 6 ②



a = 10
b = a
a = 20



- Mutable when updated does not change → Memory locations stay same

- Immutable when updated changes → Memory location changes as well

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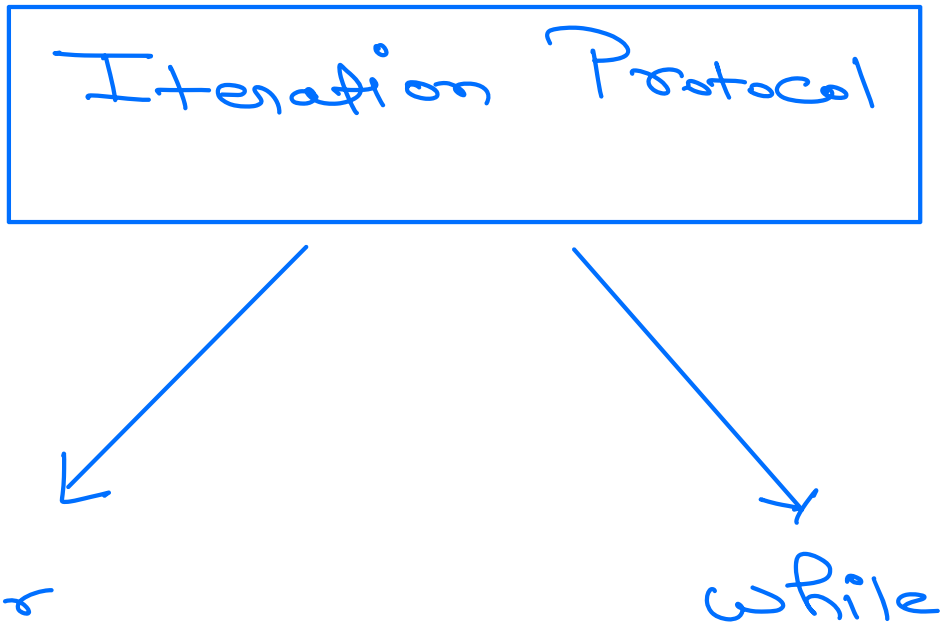
xindentationx

Doesn't have {} 3 to define Scope block

```
if (conditions):
    ---
    ----
    -- --
else:
    ---
    ----
    -- --
```

Line 20



For loop in Python Follows iteration protocol

--iter--

iterable : Data structure on which we can do For loops

iterator : Stream of data where values are generated one by one.