DSML Intermediate - 2

Starting at 9.05 pm.

2 months

Only this module

June Beginner 1 (MWF) ✓

S-1 ⇒ June Beginner 2 (~~T~~ ~~T~~ S) → MWF

MWF

① ⇒ MWF

[Doubt session after every 2 weeks (Sat/Sun)]

② MWF MWS ✗

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8 weeks After 2 months (will confirm with team).

15th-20th Oct

Intermediate → Advance Transition Test

After 1 month ⇒ Mid module Test (—)

Floor division = floor

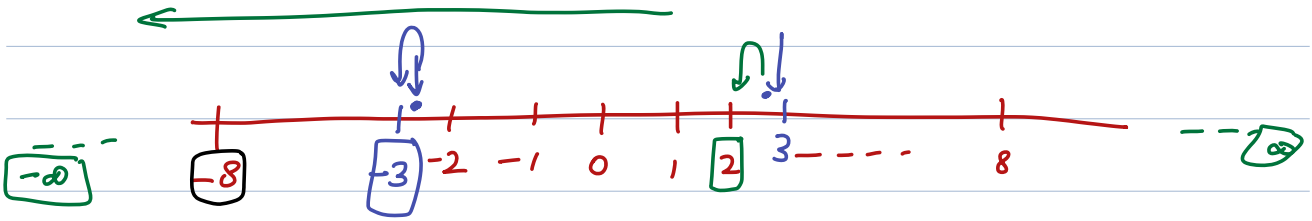
Take the nearest int on left

$-8 // 3$

$\Rightarrow -2.67$

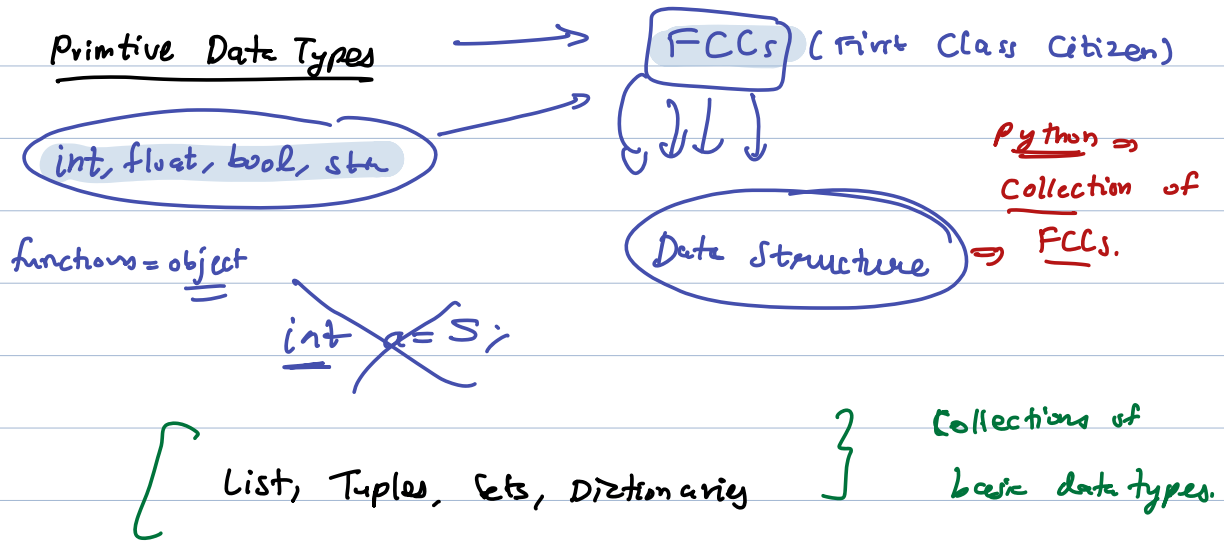
$\frac{8}{3} = 2.67$

$8 // 3 \Rightarrow 2$



$-(8//3) \Rightarrow -(2)$

Lists ? Data Structures?



From the last class:

Mutable ⇒ id (—) remains same

Immutable ⇒ id (—) will change.

3 musketeers

M

Python Data structures. Today Next LSD

Lists	Tuples	Sets	Dictionaries
- Mutable	- Immutable	- Mutable	- Mutable.
- ordered	- ordered	- unordered	In general
- Iterable	- Iterable	- Iterable	< 3.6 unordered.
- Index	- Index	- No index	- No index. x
Dynamic Arrays	Static Arrays	Hashing (Hash Set)	Hashing (Hash Map) / BST (Tree Map)

Binary Search Trees

Conceptual/Actual implementations.

In Intermediate

In Advance.

List Slicing

-6	-5	-4	-3	-2	-1
0	1	2	3	4	5

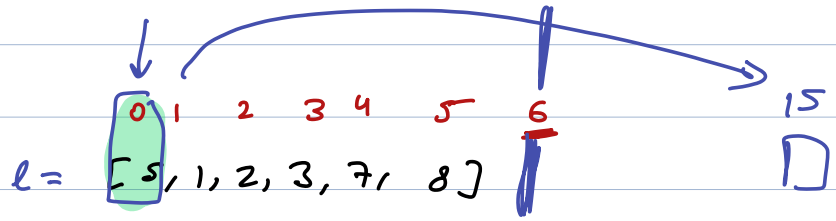
l = [5, 1, 2, 3, 7, 8] ⇒ unchanged

First 3 — start, end (excluded)

l[0:3:1] — inc.

⇒ [5,1,2] New List

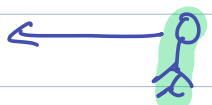
>0	<0
+ve	-ve.
(Left to Right)	(Right to Left)



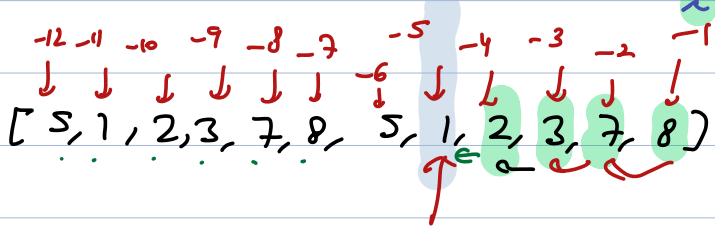
equal to $l[::15]$

$l[0:6:15] \Rightarrow [5]$

0 len(l)

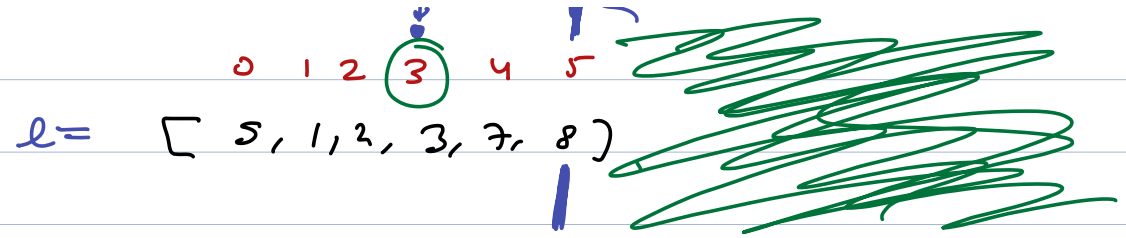


$-12-1 = -13$



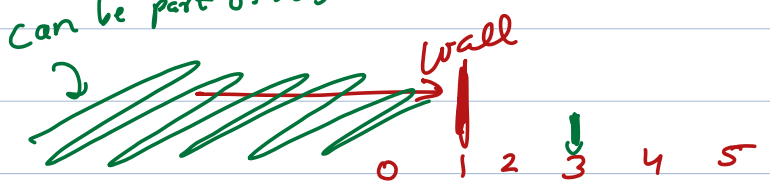
$l[-1:-5:-1]$ $[8, 7, 3, 2]$

R to L.



only this side can be part of ans.

l[3:5:-1] => []



0 1 2 3 4 5

l = [5, 1, 2, 3, 7, 8]

l[3:1:1] => []

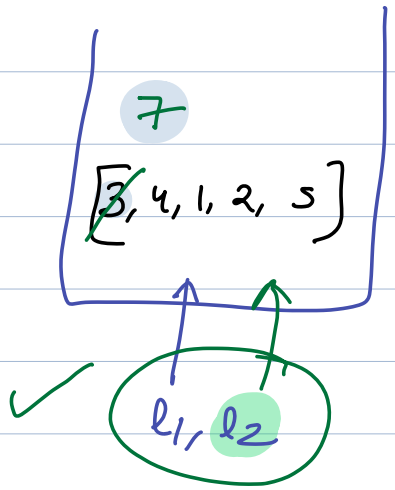
l[0:1:1] => [5]

Mutable

$l_1 = [3, 4, 1, 2, 5]$

$l_2 = l_1$

$l_1[0] = 7$

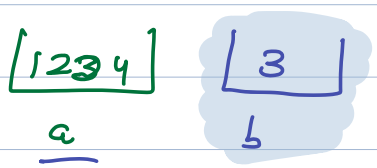


$a = 1234$

$b = a$

$b = 3$ ⟹ Immutable

print(a)



HW

board = [' ']*3 ⇒ [' ', ' ', ' ']

[' ', ' ', ' '] * 3 ⇒ ✗

[' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ', ' ']