

DS2500

1/10 - Fri !!

Admin

- Lab 1 Monday 1/13
3/5 for full credit
- Hw 1 out next Friday 1/17
- Policy: attendance

Agenda

1. Short Little Python Review
2. Discussion + Questions
3. Python

what happens if...?

1. Short Little Python Review

PyCharm is our IDE

↳ create a new project (every Hw, lab, etc.)

configure Python interpreter (3.10+)

File > New... create Python file

In our Python File

"header"	~ describe the file
imports	~ Python libraries your own files/functions
CONSTANTS	~ variables that don't change
Function defs	~ our functions
main	~ start of the code

run the code

joined.com
mvd nmh

2:31

Qs:

for loop

list slicing

arg vs params

cant in 2D list

!=, ==

Conditionals

if

_____ ;

code block

code block

boolean (True/False)

$x == y$

$x != y$

$x > y$

$x < y$

$x \geq y$

$x \leq y$

2nd
or
not

2D list Counting

lst = [[1,3], [3,5]]

lst.count(3) $\emptyset$

lst.count([3,5]) 1

def func(p1, p2):
p1 * p2 ...

p1, p2
are params

Slicing

lst[a:b]

func(3,8)

3,8 are
arguments

↳ give us a list, starting at pos a (incl)
ending at pos b (excl)

lst = [1, 8, 9, 7]

loop for num in lst:

(ex) lst = [8, 5, 4]

num = 8

num = 5

num = 4

} structure:
iterate by
value

lst[1:] [8, 9, 7]

lst[:1] [1]

lst[1:3] [8, 9]

tuples

tuple is a data structure
(one/2/3/4 many values)

(_, _, _, _) positions + values

0 1 2 3

Same as list, except can't be modified

(ex) tup = (8, 7, 1, 3)

print(tup[1]) 7 ✓

tup[1] = 12 ✗

!!
n

We use tuples:

- protect data
- combine values to return

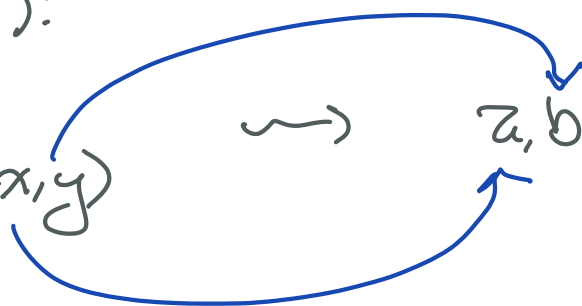
def func():

~~~~~

return (x, y)

→

a, b = func()



return x, y

Function to find max

value in a dictionary

return key, value as a tuple

(ex) {'a': 1, 'b': 8, 'c': 5}

'b', 8