Lambda within User-Defined Functions

Let's first remember what is lambda??

`lambda` function is used for creating small, one-time, anonymous function objects in Python.

lambda arguments : expression
(basic syntax)

Lambda can take many arguments but only can have only one expression.In this example, x and y are arguments to the function and x + y is the expression. Its values are returned as output.

```
  ● 1    add = lambda x, y : x + y
    2
    3    print(add(2, 3))
    4    print(type(add))
    5
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMIN

→ ~ /opt/homebrew/bin/python3 /Users/tepe/D
5
<class 'function'>

```
267    x = [24, 6, 56, 10]
268    y = [22, 44, 44, 60]
269    z = [32, 10, 50, 50]
270
271    ortalama = list(map(lambda x, y, z: (x + y + z) / 3 , x, y, z))
272    print(ortalama)
273    print('---------------***------------')
274
275    l = lambda x, y, z: (x + y + z) / 3
276    ortalama = list(map(l, x, y, z))
277    print(ortalama)
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   1: Python   ∨   +

→ ~ /opt/homebrew/bin/python3 /Users/tepe/Desktop/GitHub/VSCODE/PYTHON/050821.ic.py
[26.0, 20.0, 50.0, 40.0]
---------------***------------
[26.0, 20.0, 50.0, 40.0]

Lambda within User-Defined Functions

▶ **Lambda within def :**

'Usage of def and lambda is one of the most important invention of this century ' *Instructor Joseph**

It basically make a new function from another function!!

just read the codes you will get the idea...

```
296  def repeater(n):
297      return lambda x: x * n
298
299  five_repeat = repeater(5)
300  print(five_repeat('Clarusway! '))
301
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
→  ~ /opt/homebrew/bin/python3 /Users/tepe/Desktop/GitHu
Clarusway! Clarusway! Clarusway! Clarusway! Clarusway!
→  ~ 
```

```
304  def powerer(n):
305      return lambda x: x ** n
306
307  power3 = powerer(3)
308  print(power3(5))
309  print('**********************')
310  power2 = powerer(2)
311  print(power2(8))
312
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
→  ~ /opt/homebrew/bin/python3 /Users/tepe/Desktop,
125
**********************
64
```

```python
314 ∨ def i_function(n):
315       return lambda x: n(x)
316
317   print('---------------------------')
318
319   i_print = i_function(print)
320   i_print('with i_print we used print function')
321   i_print('***********************')
322
323   i_bool = i_function(bool)
324   x = 5
325   y = 10
326   i_print(i_bool(x == y))
327   i_print('***********************')
328
329   i_max = i_function(max)
330   listem = [1, 3, 5, 99, 11]
331   i_print(i_max(listem))
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**   1: Python

```
→  ~ /opt/homebrew/bin/python3 /Users/tepe/Desktop/GitHub/VSCODE/PY
---------------------------
with i_print we used print function
***********************
False
***********************
99
```

```
334  ∨ def emojer(n):
335        return lambda x: x + n
336
337    smile = emojer(' :))')
338    print(smile('I am happy'))
339
340    print('————————————————————')
341
342    sad = emojer(' :((')
343    print(sad('I am sad'))
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
→  ~ /opt/homebrew/bin/python3 /Users/tepe/Desktop/Git
————————————————————
I am happy :))
————————————————————
I am sad :((
```