Map and Lambda Function

by harsh_beria93

Let's learn some new Python concepts! You have to generate a list of the first N fibonacci numbers, 0 being the first number. Then, apply the *map* function and a *lambda* expression to cube each fibonacci number and print the list.

Concept

The `map()` function applies a function to every member of an iterable and returns the result. It takes two parameters: first, the function that is to be applied and secondly, the iterables.
Let's say you are given a list of names, and you have to print a list that contains the length of each name.

```
>> print (list(map(len, ['Tina', 'Raj', 'Tom'])))
[4, 3, 3]
```

Lambda is a single expression anonymous function often used as an inline function. In simple words, it is a function that has only one line in its body. It proves very handy in functional and GUI programming.

```
>> sum = lambda a, b, c: a + b + c
>> sum(1, 2, 3)
6
```

Note:

Lambda functions cannot use the return statement and can only have a single expression. Unlike *def*, which creates a function and assigns it a name, *lambda* creates a function and returns the function itself. Lambda can be used inside lists and dictionaries.

Input Format

One line of input: an integer N.

Constraints

$0 \leq N \leq 15$

Output Format

A list on a single line containing the cubes of the first N fibonacci numbers.

Sample Input

```
5
```

Sample Output

```
[0, 1, 1, 8, 27]
```

Explanation

The first 5 fibonacci numbers are $[0, 1, 1, 2, 3]$, and their cubes are $[0, 1, 1, 8, 27]$.

Submissions: 12849

Max Score: 20

Difficulty: Easy

Rate This Challenge:

More

Current Buffer (saved locally, editable) Python 3

```
1  cube=lambda x: x**3
2
3  def fibonacci(n):
4      # return a list of fibonacci numbers
5      def fib(x): return x if x < 2 else fib(x - 1) + fib(x - 2)
6      return list(map(fib, range(n)))
7
8  if __name__ == '__main__':
9      n = int(input())
10     print(list(map(cube, fibonacci(n))))
```

Line: 6 Col: 36

Upload Code as File Test against custom input Run Code Submit Code

Congrats, you solved this challenge!

Challenge your friends:

- ✔ Test Case #0
- ✔ Test Case #1
- ✔ Test Case #2
- ✔ Test Case #3
- ✔ Test Case #4
- ✔ Test Case #5
- ✔ Test Case #6
- ✔ Test Case #7
- ✔ Test Case #8
- ✔ Test Case #9

You've earned 20.00 points. Next Challenge