#DAY 7

# DAY 7 OF 200 DAY'S PYTHON CHALLENGE

# MAP FUNCTION

- The map() function in Python is a built-in function that allows you to process and transform all the items in an iterable without using an explicit for loop.
- map() is a fundamental component of functional programming in Python. It takes a function object and an iterable (or multiple iterables) as arguments.

Day 7.py

```
l = [2,3,4,5,6]
def sq(x):
  return x**2
list(map(sq , l))
list(map(lambda x : x**2 , l))
```

# REDUCE FUNCTION

- The reduce() function in Python applies a function of two arguments cumulatively to the elements of an iterable, from left to right, so as to reduce the iterable to a single value.

Day 7.py

```
from functools import reduce
l = [1,2,3,3,4,5]
reduce(lambda x ,y : x+y , l)#Sum of list l
reduce(lambda x ,y : x+y , [])#Error
reduce(lambda x ,y : x+y , [1]) #acception 1
```

# FILTER FUNCTION

The filter() function in Python is a built-in function that takes two arguments: a function and an iterable. The function is called on each element of the iterable, and the filter() function returns an iterator that yields the elements for which the function returns True

Day 7.py

```
l = [1,2,3,3,4,5]
list(filter(lambda x : x % 2 == 0 , l))#Even
list(filter(lambda x : x % 2 != 0 , l))#odd
```

# PRACTICE

*All Previous Topics*

- Basic
- String
- List
- Tuples
- Sets
- Dictionary
- Conditional Statement
- Loops
- Functions

# FOLLOW FOR MORE

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