

## Chapter 46 - Map Filter

### Theory:

This chapter covers the topic of Map Filter.

### Code Example:

```
from functools import reduce
#map
#
ls = [1,2,3,4,5,6,7,8]
squaredList= lambda x: x*x
sqList = map(squaredList , ls)
print(list(sqList))

# filter
def even(n):
    if (n%2==0):
        return True
    return False
onlyEven = filter(even ,ls)
print(list(onlyEven))

#reduce func
def Sum(a, b):
    return a + b
x = int(input("Enter num1: "))
y = int(input("Enter num2: "))
nums = [x, y]
result = reduce(Sum, nums)
print("Sum using named function:", result)

# ex 2
x = int(input("Enter a num1: "))
y = int(input("Enter a num2: "))
# Create a list of the two numbers
nums = [x, y]
# Use reduce to sum them
result = reduce(lambda a, b: a + b, nums)
print("The sum is:", result)
```