

Untitled8

February 7, 2023

0.1 Assignment - 5

0.1.1 Q1. Create a python program to sort the given list of tuples based on integer value using a lambda function.

0.1.2 [(‘Sachin Tendulkar’, 34357), (‘Ricky Ponting’, 27483), (‘Jack Kallis’, 25534), (‘Virat Kohli’, 24936)]

```
[9]: l = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]
```

```
[10]: l2 = sorted(l, key = lambda x : x[1],reverse=True)
```

```
[11]: print("Reverse sorted list: ",l2)
      print("original list: ", l)
```

Reverse sorted list: [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]
original list: [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]

0.1.3 Q2. Write a Python Program to find the squares of all the numbers in the given list of integers using lambda and map functions.

0.1.4 [1,2,3,4,5,6,7,8,9,10]

```
[12]: List1 = [1,2,3,4,5,6,7,8,9,10]
```

```
[18]: sq = lambda x : x**2
```

```
[19]: m = map(sq,List1)
```

```
[20]: for i in m:
      print(i)
```

1
4
9
16
25

36
49
64
81
100

0.1.5 Q3. Write a python program to convert the given list of integers into a tuple of strings. Use map and lambda functions

0.1.6 Given String: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

0.1.7 Expected output: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')

```
[25]: List1 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
      integertoString = lambda x : str(x)
```

```
[28]: t1 = tuple(map(integertoString,List1))
```

```
[29]: t1
```

```
[29]: ('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')
```

0.1.8 Q4. Write a python program using reduce function to compute the product of a list containing numbers from 1 to 25.

```
[35]: from functools import reduce
```

```
[36]: List1 = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25]
```

```
[40]: reduce(lambda x,y : x*y,List1)
```

```
[40]: 15511210043330985984000000
```

0.1.9 Q5. Write a python program to filter the numbers in a given list that are divisible by 2 and 3 using the filter function.

0.1.10 [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

```
[55]: List1 = [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]
      List2 = filter(lambda x : x%2 == 0 and x%3 == 0,List1)
```

```
[58]: for i in List2:
      print(i)
```

6
60
90
120

0.1.11 Q6. Write a python program to find palindromes in the given list of strings using lambda and filter function.

0.1.12 ['python', 'php', 'aba', 'radar', 'level']

```
[59]: l = ['python', 'php', 'aba', 'radar', 'level']
```

```
[68]: l2 = filter(lambda x : x == x[::-1],l)
```

```
[69]: for i in l2:  
        print(i)
```

```
php  
aba  
radar  
level
```

```
[ ]:
```