

AMITOJ SINGH 4th FEB Assignment

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

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

```
In [3]: minfo= [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis',
```

```
In [11]: sorted_minfo = sorted(minfo, key=lambda x: x[1])
print(sorted_minfo)
```

```
[['Virat Kohli', 24936], ['Jack Kallis', 25534], ['Ricky Ponting', 27483],
['Sachin Tendulkar', 34357]]
```

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

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

```
In [1]: l1=[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
list(map(lambda x:x**2,l1))
```

```
Out[1]: [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
```

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

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

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

```
In [2]: l= [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
tuplefrom_l=tuple(map(str,l))
print(tuplefrom_l)
```

```
('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')
```

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

```
In [3]: from functools import reduce
```

```
In [10]: new_list=[]  
         for i in range(1,26):  
             new_list.append(i)
```

```
In [11]: new_list
```

```
Out[11]: [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]
```

```
In [12]: reduce(lambda x,y:x*y,new_list)
```

```
Out[12]: 15511210043330985984000000
```

Q5. Write a python program to filter the numbers in a given list that are divisible by 2 and 3 using the filter function. [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

```
In [21]: lims=[2, 3, 6, 9, 27, 60, 90, 120, 55, 46]  
         list(filter(lambda x:x%2==0 and x%3==0 ,lims))
```

```
Out[21]: [6, 60, 90, 120]
```

Q5. Write a python program to find palindromes in the given list of strings using lambda and filter function.

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

```
In [27]: string_list = ['python', 'php', 'aba', 'radar', 'level']  
is_palindrome = lambda string: string == string[::-1]  
palindrome_list = list(filter(is_palindrome, string_list))  
print(palindrome_list)
```

```
['php', 'aba', 'radar', 'level']
```

```
In [ ]:
```