

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 [2]: l = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis',  
l.sort(key = lambda x : x[1])  
l
```

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

```
Out[7]: [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 [9]: l2 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]  
tuple(map(lambda x: str(x) ,l2))
```

```
Out[9]: ('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 [12]: from functools import reduce  
l = list(range(1,26))  
  
reduce(lambda x, y: x*y ,l)
```

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

```
Out[13]: [6, 60, 90, 120]
```

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

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

```
In [26]: l = ['python', 'php', 'aba', 'radar', 'level']
         list(filter(lambda x: list(x)==[i for i in reversed(x)], l))
```

```
Out[26]: ['php', 'aba', 'radar', 'level']
```