

In [1]: #Q1

```
In [3]: subject_marks = [('Sachin tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]
print("Original list of tuples:")
print(subject_marks)
subject_marks.sort(key = lambda x: x[1])
print("\nSorting the List of Tuples:")
print(subject_marks)
```

Original list of tuples:

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

Sorting the List of Tuples:

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

In [4]: #Q2

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

Out[5]: [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]

In [6]: #Q3

```
In [52]: list_tuple=[1,2,3,4,5,6,7,8,9,10]
print("original tuple is :"+str(list_tuple))
list_tuple=tuple(map(str,list_tuple))
print("modified tuple is:"+str(list_tuple))
```

original tuple is :[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

modified tuple is:('1', '2', '3', '4', '5', '6', '7', '8', '9', '10')

In [55]: #Q4

```
In [56]: from functools import reduce
l=[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]
reduce(lambda x,y:x*y,l)
```

Out[56]: 15511210043330985984000000

In [61]: #Q5

```
In [80]: lis = [2, 3, 6, 9, 27, 60, 90, 120, 55, 46]

lis2 = [i for i in lis if i % 2 == 0]
lis3=[i for i in lis if i %3==0]

# Printing output
print(lis2)
print(lis3)
```

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

In [86]: #Q6

```
In [2]: list_of_strings = ['python', 'php', 'aba', 'radar', 'level']  
  
# use an anonymous function to filter palindromes.  
result = list(filter(lambda x: (x == ''.join(reversed(x))), list_of_strings))  
  
# print the palindromes  
print(result)  
  
['php', 'aba', 'radar', 'level']
```

In []: