```
                            Name-Rakesh Rajput
                          Assignment type-Python
```

In [4]:
```python
"""Q1. Create a python program to sort the given list of tuples based on integer value using a
lambda function."""

subject_marks = [('Sachin Tendulkar', 34357), ('Ricky Ponting', 27483), ('Jack Kallis', 25534), ('Virat Kohli', 24936)]
subject_marks.sort(key=lambda x: x[1])
print(subject_marks)
```

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

In [20]:
```python
"""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]"""

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

# using map

def sq(b):
    return b**2

print(list(map(sq,a)))


#by  of lambda function

c=lambda x:x**2
print(list(map(c,a)))
```

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

In [25]:
```python
"""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')"""

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

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

In [27]:
```python
"""Q4. Write a python program using reduce function to compute the product
of a list containing numbers from 1 to 25."""

from functools import reduce

a=[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]
b=lambda x,y:x*y
reduce(b,a)
```

Out[27]: 15511210043330985984000000

In [29]:
```python
"""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]"""
a=[2, 3, 6, 9, 27, 60, 90, 120, 55, 46]
b=lambda x:x%2==0 and x%3==0
list(filter(b,a))
```

Out[29]: [6, 60, 90, 120]

In [39]:
```python
"""Q6. Write a python program to find palindromes in the given list of strings
using lambda and filter function. ['python', 'php', 'aba', 'radar', 'level']"""
a=['python', 'php', 'aba', 'radar', 'level']
b=lambda x:(x=="".join(reversed(x)))
print(list(filter(b,a)))
```

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

In [ ]:

In [ ]:

In [ ]: