1.Write a Python program to sort a list of tuples using Lambda.

```
subject_marks = [('English', 88), ('Science', 90), ('Maths', 97), ('Social sc
iences', 82)
```

In [1]:

```
subject_marks = [('English', 88), ('Science', 90), ('Maths', 97), ('Social sciences', 82)]
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:
[('English', 88), ('Science', 90), ('Maths', 97), ('Social sciences', 82)]

Sorting the List of Tuples:
[('Social sciences', 82), ('English', 88), ('Science', 90), ('Maths', 97)]
```

2) Write a Python program to square and cube every number in a given list of integers using Lambda.

In [2]:

```
nums = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
print("Original list of integers:")
print(nums)
print("\nSquare every number of the said list:")
square_nums = list(map(lambda x: x ** 2, nums))
print(square_nums)
print("\nCube every number of the said list:")
cube_nums = list(map(lambda x: x ** 3, nums))
print(cube_nums)
```

```
Original list of integers:
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

Square every number of the said list:
[1, 4, 9, 16, 25, 36, 49, 64, 81, 100]

Cube every number of the said list:
[1, 8, 27, 64, 125, 216, 343, 512, 729, 1000]
```

3) Write a Python program to add two given lists using map and lambda#

In [3]:

```
nums1 = [1, 2, 3]
nums2 = [4, 5, 6]
print("Original list:")
print(nums1)
print(nums2)
result = map(lambda x, y: x + y, nums1, nums2)
print("\nResult: after adding two list")
print(list(result))
```

```
Original list:
[1, 2, 3]
[4, 5, 6]

Result: after adding two list
[5, 7, 9]
```

4) Write an python program to filter all the elements in the list that are divisible by 13.

```
my_list = [12, 65, 54, 39, 102,  339, 221, 50, 70]
```

In [4]:

```
my_list = [12, 65, 54, 39, 102,  339, 221, 50, 70]
print("Orginal list:")
print(my_list)
result = list(filter(lambda x: (x % 13 == 0), my_list))
print("\nNumbers of the above list divisible by thirteen:")
print(result)
```

```
Orginal list:
[12, 65, 54, 39, 102, 339, 221, 50, 70]

Numbers of the above list divisible by thirteen:
[65, 39, 221]
```

5) Write a Python program that multiply each number of given list with a given number using lambda function. Print the result.

In [5]:

```
nums = [2, 4, 6, 9 , 11]
n = 2
print("Original list: ", nums)
print("Given number: ", n)
filtered_numbers=list(map(lambda number:number*n,nums))
print("Result:")
print(' '.join(map(str,filtered_numbers)))
```

```
Original list:  [2, 4, 6, 9, 11]
Given number:  2
Result:
4 8 12 18 22
```