Darshan UNIVERSITY

योग: कर्मसु कौशलम्

Python for Data Science - 2305CS303

Lab - 5 Part-2

Roll No. : 111

Name : Dhara Maru

1. WAP to create a list of squared numbers from 0 to 9 with and without using List Comprehension.

In [3]:
```
# With Comprehension
l1 = [i*i for i in range(10)]
print(l1)

#Wihtout comprehension
li1 = []
for i in range(10):
    li1.append(i*i)
print(li1)
```

```
[0, 1, 4, 9, 16, 25, 36, 49, 64, 81]
[0, 1, 4, 9, 16, 25, 36, 49, 64, 81]
```

2. WAP to find Maximum and Minimum K elements in a given tuple.

In [4]:
```
t = (5, 1, 9, 4, 7, 3)
k = 3
sorted_t = sorted(t)
mink = sorted_t[:k]
maxk = sorted_t[-k:]
print("Min K:", mink)
print("Max K:", maxk)
```

```
Min K: [1, 3, 4]
Max K: [5, 7, 9]
```

3. WAP to find tuples which have all elements divisible by K from a list of tuples.

In [5]:
```
data = [(10, 20), (15, 25), (30, 60), (12, 18)]
k = 5
```

```
result = []
for tup in data:
    if all(x % k == 0 for x in tup):
        result.append(tup)
print(result)
```

```
[(10, 20), (15, 25), (30, 60)]
```

4. WAP to create a list of tuples from given list having number and its cube in each tuple.

In [7]:
```
l4 = [1, 2, 3, 4, 5]
l5 = []
for i in l4:
    l5.append((i, i**3))
print(l5)
```

```
[(1, 1), (2, 8), (3, 27), (4, 64), (5, 125)]
```

5. WAP to remove tuples of length K.

In [8]:
```
l1 = [(1, 2), (3, 4, 5), (6,), (7, 8)]
k = 2
l2 = []
for i in l1:
    if len(i) != k:
        l2.append(i)
print(l2)
```

```
[(3, 4, 5), (6,)]
```