

Name of Student : AHMED ALI ANSARI**ID No : 1402-2020****Task :**

- 1. Write code that reverses and sorts lists, dictionary and tuple.?**

Answer :

```
In [8]: #sorts list in ascending order
prime_numbers = [4,7,2,1,9,0]

prime_numbers.sort()

print(prime_numbers)

|

[0, 1, 2, 4, 7, 9]
```

```
In [11]: #sorts list in descending order
prime_numbers = [4,7,2,1,9,0]

prime_numbers.sort(reverse=True)

print(prime_numbers)

[9, 7, 4, 2, 1, 0]
```

- 2. When should we use "" (triple quotes) to define strings?**

Answer :

Name of Student : AHMED ALI ANSARI**ID No : 1402-2020**

```
In [16]: #ascending order sorting dictionary
Dict = {4: 'Zealux', 2: 'Axis', 3: 'Jax' , 1:"somoa"}

# Sort by key
sorts = (sorted(Dict.items()))
print(sorts)

# Sort by value
sorts_item = dict(sorted(Dict.items(), key=lambda item: item[1]))
print(sorts_item)

[(1, 'somoa'), (2, 'Axis'), (3, 'Jax'), (4, 'Zealux')]
{2: 'Axis', 3: 'Jax', 4: 'Zealux', 1: 'somoa'}
```

```
In [25]: from collections import OrderedDict

#decending order sorting dictionary
Dict = {1: 'Zealux', 2: 'Axis', 3: 'Jax' , 4:"somoa"}

# printing original dictionary
print("The original dictionary : " + str(Dict))
res =dict(reversed(list(Dict.items())))

# printing reversed order dictionary
print("The reversed order dictionary : " + str(res))

The original dictionary : {1: 'Zealux', 2: 'Axis', 3: 'Jax', 4: 'somoa'}
The reversed order dictionary : {4: 'somoa', 3: 'Jax', 2: 'Axis', 1: 'Zealux'}
```

3. Print the following patterns using loop?

Answer:

Name of Student : AHMED ALI ANSARI**ID No : 1402-2020**

```
In [23]: def pypart(n):  
  
    # outer loop to handle number of rows  
    # n in this case  
    for i in range(0, n):  
        # inner loop to handle number of columns  
        # values changing acc. to outer loop  
        for j in range(0, i+1):  
  
            # printing stars  
            print("* ",end="")  
  
        # ending line after each row  
        print("\r")  
  
n = 5  
pypart(n)
```

```
*  
* *  
* * *  
* * * *  
* * * * *
```

```
In [22]: n = 5  
m = (2 * n) - 2  
for i in range(0, n):  
    for j in range(0, m):  
        print(end=" ")  
    m = m - 1 # decrementing m after each loop  
    for j in range(0, i + 1):  
  
        # printing full Triangle pyramid using stars  
        print("* ", end=' ')  
  
    print(" ")
```

```
  *  
 * *  
* * *  
* * * *  
* * * * *
```

Name of Student : AHMED ALI ANSARI**ID No : 1402-2020****5. Print multiplication table of 24, 50 and 29 using loop.?**

Answer:

In [24]: *#Table of 24*

```
num = 24

for i in range(1, 11):
    print(num, 'x', i, '=', num*i)
```

```
24 x 1 = 24
24 x 2 = 48
24 x 3 = 72
24 x 4 = 96
24 x 5 = 120
24 x 6 = 144
24 x 7 = 168
24 x 8 = 192
24 x 9 = 216
24 x 10 = 240
```

In [25]: *#Table of 50*

```
num = 24

for i in range(1, 11):
    print(num, 'x', i, '=', nu
```

```
24 x 1 = 24
24 x 2 = 48
24 x 3 = 72
24 x 4 = 96
24 x 5 = 120
24 x 6 = 144
24 x 7 = 168
24 x 8 = 192
24 x 9 = 216
24 x 10 = 240
```

In [26]: *#Table of 50*

```
num = 29

for i in range(1, 11):
    print(num, 'x', i, '=
```

```
29 x 1 = 29
29 x 2 = 58
29 x 3 = 87
29 x 4 = 116
29 x 5 = 145
29 x 6 = 174
29 x 7 = 203
29 x 8 = 232
29 x 9 = 261
29 x 10 = 290
```

6. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6?

Name of Student : AHMED ALI ANSARI**ID No : 1402-2020**

Answer:

```
In [28]: for x in range(6):  
         if (x == 3 or x==6)  
             continue  
         print(x,end=' ')
```

0 1 2 4 5

7. Write a Python program to sum all the items in a dictionary.?

Answer:

```
In [32]: my_dict = {'data1':100,'data2':-54,'data3':247}  
         print(sum(my_dict.values()))
```

293

8. Write a Python program to find the repeated items of a tuple.?

Answer :

```
In [36]: n = 4  
         tuplex = 2, 4, 5, 6, 2, 3, 4, 4, 7  
         print(tuplex)  
         #pass value want to search as a duplicate in the tuple  
         count = tuplex.count(n)  
         print('item',n , 'appears : ' ,count, ' times')
```

(2, 4, 5, 6, 2, 3, 4, 4, 7)
item 4 appears : 3 times

**9. Write a Python program to replace last value of tuples in a list. Sample list:
[(10, 20, 40), (40, 50, 60), (70, 80, 90)] Expected Output: [(10, 20, 100), (40, 50,
100), (70, 80, 100)]?**

Answer:

Name of Student : AHMED ALI ANSARI

ID No : 1402-2020

```
In [37]: l = [(10, 20, 40), (40, 50, 60), (70, 80, 90)]
         print([t[:-1] + (100,) for t in l])
         |
         [(10, 20, 100), (40, 50, 100), (70, 80, 100)]
```
