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Roll no: 56

Batch : C2

Assignment 2

1. Create a list of 10 integers and sort it in ascending order.

```
[1]: l = [2,1,6,3,2,8,4,6,5,0]
l.sort()
print(l)
```

[0, 1, 2, 2, 3, 4, 5, 6, 6, 8]

2. Create a list of 10 integers and sort it in descending order.

```
[2]: l = [2,1,6,3,2,8,4,6,5,0]
l.sort(reverse = True)
print(l)
```

[8, 6, 6, 5, 4, 3, 2, 2, 1, 0]

3. Create a tuple of 6 numbers and sort it in ascending order.

```
[3]: t = (4,2,7,5,9,3)
sorted_tuple = tuple(sorted(t))
print(sorted_tuple)
```

(2, 3, 4, 5, 7, 9)

```
[4]: l1 = [1,4,32]
l2 = [6,4,9]
merged_list = l1 + l2
print(merged_list)
```

[1, 4, 32, 6, 4, 9]

5. Merge two tuples of numbers and print resulting tuple.

```
[5]: t1 = (1,2,4)
t2 = (6,5,8)
merged_tuple = t1 + t2
print(merged_tuple)
```

(1, 2, 4, 6, 5, 8)

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6. Take a list of 8 numbers and print first 4 using slicing.

```
[6]: l = [1,2,4,5,6,8,9,0]
      l[:4:]
```

[1, 2, 4, 5]

7. Take a list of 8 numbers and print the last 4 elements using slicing.

```
[13]: l = [1,2,4,5,6,8,9,0]
       l[-4::]
```

[6, 8, 9, 0]

8. From a list of 10 elements, print every second element using slicing.

```
[14]: l = [2,1,6,3,2,8,4,6,5,0]
       l[::2]
```

[2, 6, 2, 4, 5]

9. From a tuple of 7 elements, print elements from index 2 to 5 using slicing.

```
[15]: t = (4,2,7,5,9,3,88)
       t[2:5:]
```

(7, 5, 9)

10. From a tuple of 7 elements, print all elements in reverse order using slicing.

```
[16]: t = (4,2,7,5,9,3,88)
       t[::-1]
```

(88, 3, 9, 5, 7, 2, 4)

```
[17]: l1 = [1,4,32]
       l2 = [6,4,9]
       merged_list = l1 + l2
       merged_list.sort()
       print(merged_list)
```

[1, 4, 4, 6, 9, 32]

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12. Combine two tuples, sort the combined tuple in ascending order, and print the result.

```
[19]: t1 = (1,2,4)
t2 = (6,5,8)
merged_tuple = t1 + t2
sorted_tuple = tuple(sorted(merged_tuple))
print(sorted_tuple)
```

(1, 2, 4, 5, 6, 8)

13. Create a list of strings and sort them alphabetically.

```
[21]: l = ["bc", "eqw", "ih", "paq"]
l.sort()
print(l)
```

['bc', 'eqw', 'ih', 'paq']

14. Merge a list of strings with another list of string and arrange them alphabetically

```
[22]: l1 = ["ac", "id", "pq"]
l2 = ["vo", "cy", "bu"]
print(l1+l2)
```

['ac', 'id', 'pq', 'vo', 'cy', 'bu']

15. Take a list of 10 numbers, split it into two halves, reverse each half separately, and print both halves.

```
[24]: l = [2,1,6,3,2,8,4,6,5,0]
half1 = l[:5:]
half2 = l[5::]
half1.sort()
half2.sort()
print(half1)
print(half2)
```

[1, 2, 2, 3, 6]

[0, 4, 5, 6, 8]