Assignment-8

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1. **Program to print first 10 natural numbers using while loop**

```
i=1
while i<=10:
        print(i)
        i=i+1
```

Output:-

```
1
2
3
4
5
6
7
8
9
10
```

2. Program to sort array elements in the ascending order

```python
arr = [5, 2, 8, 7, 1];
temp = 0;
print("Elements of original array: ");
for i in range(0, len(arr)):
    print(arr[i], end=" ");
for i in range(0, len(arr)):
    for j in range(i+1, len(arr)):
        if(arr[i] > arr[j]):
            temp = arr[i];
            arr[i] = arr[j];
            arr[j] = temp;
print();
print("Elements of array sorted in ascending order: ");
for i in range(0, len(arr)):
    print(arr[i], end=" ");
```

Output:-

Elements of original array:

5 2 8 7 1

Elements of array sorted in ascending order:

1 2 5 7 8

3. **Program to find the maximum and minimum numbers in a list of 10 elements and to also find the index position of them**

```python
def minimum(a, n):
    print("Minimum :",min(a))
    print("Maximum :",max(a))
    minpos = a.index(min(a))
    maxpos = a.index(max(a))
    print("The minimum is at position", minpos + 1)
    print("The maximum is at position", maxpos + 1)
a = [3, 4, 1, 3, 4, 5,8,45,60,10]
minimum(a, len(a))
```

Output:-

Minimum : 1
Maximum : 60
The minimum is at position 3
The maximum is at position 9

4. **Program to find the intersection of two elements from two lists**

```python
def intersection(lst1, lst2):
    lst3 = [value for value in lst1 if value in lst2]
    return lst3
lst1 = [4, 9, 1, 17, 11, 26, 28, 54, 69]
lst2 = [9, 9, 74, 21, 45, 11, 63, 28, 26]
print("intersected elements :", intersection(lst1, lst2))
```

Output:-

intersected elements : [9, 11, 26, 28]

5. **Program to fetch only email ID from text file which include following**
   name
   roll number
   mobile number
   Email id

```
import re
s = "Name:K.Kalyani Roll no.:321910302051
Mobile_no.:9900925574 Email_ID:kalyanik4141@gmail.com"
list = re.findall("\S+@\S+",s)
print(list)
```

Output:-

['Email_ID:kalyanik4141@gmail.com']