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Subject: Python (KCS - 453)

Prac - 1:

AIM: WAP a python program to perform selection sort.

## **PROGRAM:**

```
main.py
   1 def selectionSort( itemsList ):
          n = len( itemsList )
          for i in range( n - 1 ):
   3 -
              minValueIndex = i
   4
   5
  6 -
               for j in range( i + 1, n ):
  7 -
                   if itemsList[j] < itemsList[minValueIndex</pre>
  8
                       minValueIndex = j
  9
               if minValueIndex != i :
  10 -
                   temp = itemsList[i]
  11
                   itemsList[i] = itemsList[minValueIndex]
  12
  13
                   itemsList[minValueIndex] = temp
  14
          return itemsList
  15
  16
  17
  18
      el = [21,6,9,33,3]
  19
      print(selectionSort(el))
  20
  21
```

```
...Program finished with exit code 0
Press ENTER to exit console.
```

(3, 6, 9, 21, 33)

Prac - 2:

**AIM:** WAP a python program to find GCD of 2 numbers.

**PROGRAM:** 

```
main.py
  1 def find_gcd(x, y):
  2
  3 -
          if x > y:
             smaller = y
   4
  5 -
          else:
  6
              smaller = x
  7 -
          for i in range(1, smaller+1):
              if((x \% i == 0)) and (y \% i == 0)):
  8 -
                   hcf = i
  9
          return hcf
  10
  11
  12
      num1 = 33
  13
      num2 = 27
  14
  15
      print("The GCD is", find_gcd(num1, num2))
  16
  17
```

```
...Program finished with exit code 0
Press ENTER to exit console.
```

The GCD is 3