Lab 11
PF – BSDS

Task 1: Initialize a list of 10 elements at random in range 10 to 99. Create a copy of list. Sort new list using bubble sort and print all elements after each iteration of loop in single line.

Next, trace each element of previous list in new list and print it's position. See sample run for your understanding:

Sample Run:

```
27 45 12 23 18
27 12 23 18 45
12 23 18 27 45
12 18 23 27 45
12 18 23 27 45
------------------
27 is at position 3
45 is at position 4
12 is at position 0
23 is at position 2
18 is at position 1
```

`y = [x[i] for i in range(len(x))]` code to create copy

Task 2: Create a list to store marks of 30 students. Initialize them randomly with marks 0 to 100. Print them in single line. Create another list of same size and store roll numbers 1 to 30. Next, at random remove 3-5 students by storing sentinel value in the roll no list (you may use -1 as sentinel value). Next, print roll numbers and marks column wise. Count the remaining students. Create two more lists according to count and store existing students and their roll numbers in the new list. Print new lists (using print(list) statement). See sample run carefully,

78 81 65 72 89 31 …

Roll No	**Marks**
1	**78**
2	**81**
3	**65**
5	**89**

…

[1, 2, 3, 5, …
[78, 81, 65, 89, …