# Programming Assignment 3: Order in Randomness

**Due on 2020-10-15, 23:59 IST**

You all have used the random library of python. You have seen in the screencast how powerful it is.
In this assignment, you will sort a list let's say **list_1** of numbers in increasing order using the random library.

Following are the steps to sort the numbers using the random library.

**Step 1**: Import the randint definition of the **random** library of python. Check this (https://www.codecademy.com/en/forum_questions/55c1eabde39efed2110002ae) page if you want some help.

**Step 2**: Take the elements of the **list_1** as input.

**Step 3**: randomly choose two indexes **i** and **j** within the range of the size of **list_1**.

**Step 4**: Swap the elements present at the indexes i and **j**. After doing this, check whether the **list_1** is **sorted or not**.

**Step 5**: Repeat step **3** and **4** until the array is **not sorted**.

**Input Format:**
The first line contains a single number **n** which signifies the number of elements in the **list_1**.
From the second line, the elements of the **list_1** are given with each number in a new line.

**Output Format:**
Print the elements of the **list_1** in a single line with each element separated by a space.
NOTE 1: There should **not** be any space after the last element.

Example:

Input:
4
3
1
2
5

Output:
1 2 3 5

Explanation:
The first line of the input is **4**. Which means that **n** is **4**, or the number of elements in **list_1** is **4**. The elements of **list_1** are **3, 1, 2, 5** in this order.
The sorted version of this list is **1 2 3 5**, which is the output.

NOTE 2: There are many ways to sort the elements of a list. The purpose of this assignment is to show the power of randomness, and obviously the Joy.

Select the Language for this assignment. Python3

```
n=int(input())

listOne = []

for i in range(n):
    listOne.append(int(input()))

listTwo=[]

while listOne:
    minimum = listOne[0]
    for x in listOne:
        if x < minimum:
            minimum = x
    listTwo.append(minimum)
    listOne.remove(minimum)
sarr = [str(a) for a in listTwo]
print(' '.join(sarr), end='')
```

You may submit any number of times before the due date. The final submission will be considered for grading.
**This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.**

Save as Draft | Compile & Run | Submit | Reset

**Compilation : Passed**

**Public Test Cases: 3 / 3 Passed**

***Note: These tests may not be considered while scoring. Know more.***

| Public Test Cases | Input | Expected Output | Actual Output | Status |
|---|---|---|---|---|
| Test Case 1 | 2<br>4<br>3 | 3 4 | 3 4 | Passed |
| Test Case 2 | 3<br>4<br>9<br>1 | 1 4 9 | 1 4 9 | Passed |
| Test Case 3 | 4<br>10<br>3<br>7<br>6 | 3 6 7 10 | 3 6 7 10 | Passed |