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Assignment 1: Early Termination Bubble Sort

Program 2: Write a program(in C/C++/Python) to implement Early Termination Bubble Sort. Show Each Iteration of the bubble sort

```
def bubblesort(a):
    for i in range(1, len(a)):
        print(str(i)+" iteration:-> ", a)
        f = 0
        for j in range(0,len(a)-1):
            if(a[j]>a[j+1]):
                t=a[j]
                print("shifting: ", t)
                a[j]=a[j+1]
                a[j+1]=t
                f=1
                print(a)
            if(f==0):
                break
def takeinputfromuser():
    list=[]
    n=int(input("Enter the number of element to be inserted"))
    for i in range(n):
        t = int(input("Enter the "+str(i)+ "The Number ->"))
        list.append(t)
    return list
a = takeinputfromuser()
print(a)
bubblesort(a)
print("Sorted List", a)
```

```
Enter the number of element to be inserted5
Enter the 0The Number ->3
Enter the 1The Number ->2
Enter the 2The Number ->1
Enter the 3The Number ->8
Enter the 4The Number ->4
[3, 2, 1, 8, 4]
1 iteration:->  [3, 2, 1, 8, 4]
shifting:  3
[2, 3, 1, 8, 4]
shifting:  3
[2, 1, 3, 8, 4]
shifting:  8
[2, 1, 3, 4, 8]
```

```
2 iteration:->  [2, 1, 3, 4, 8]
shifting:  2
[1, 2, 3, 4, 8]
3 iteration:->  [1, 2, 3, 4, 8]
4 iteration:->  [1, 2, 3, 4, 8]
Sorted List [1, 2, 3, 4, 8]
```

```
conda install -c conda-forge pandoc
```

```
Collecting package metadata (current_repodata.json): \
```