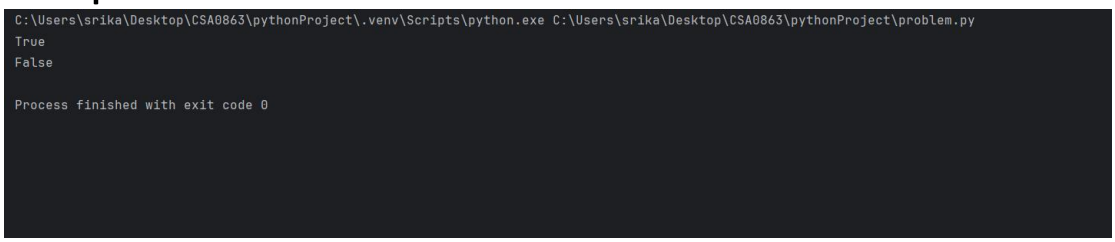
Q).Given two strings: s1 and s2 with the same size, check if some permutation of string s1 can break some permutation of string s2 or vice-versa. In other words s2 can break s1 or vice-versa. A string x can break string y (both of size n) if x[i] >= y[i] (in alphabetical order) for all i between 0 and n-1.

Program:

```
def canBreak(s1, s2):
    s1_sorted, s2_sorted = sorted(s1), sorted(s2)
    can_s1_break_s2 = all(c1 >= c2 for c1, c2 in zip(s1_sorted, s2_sorted))
    can_s2_break_s1 = all(c2 >= c1 for c2, c1 in zip(s2_sorted, s1_sorted))
    return can_s1_break_s2 or can_s2_break_s1
s1 = "abc"
s2 = "xya"
print(canBreak(s1, s2))
s1 = "abe"
s2 = "acd"
print(canBreak(s1, s2))
```

Output:



Time complexity:O(m+nlog(m+n))