22. 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  $x[i] \ge y[i]$  (in alphabetical order) for all i between 0 and n-1.

```
def can_break(s1, s2):
    s1_sorted = sorted(s1)
    s2_sorted = 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 c1, c2 in zip(s1_sorted, s2_sorted))
    return can_s1_break_s2 or can_s2_break_s1
    s1 = "abc"
    s2 = "xya"
    print(can_break(s1, s2))
INPUT:ABC,XYA
TIME COMPLEXITY:
O(n)
```

## **Output:**

```
True
PS C:\Users\surya> & C:\Users\surya/AppOata/Local/Programs/Python/Python312/python.exe c:\Users\surya/Untitled-1.py
True
```