24. You are given a string s. Consider performing the following operation until s becomes empty: For every alphabet character from 'a' to 'z', remove the first occurrence of that character in s (if it exists). For example, let initially s = "aabcbbca". We do the following operations: Remove the underlined characters s = "aabcbbca". The resulting string is s = "abbca". Remove the underlined characters s = "abbca". The resulting string is s = "ba". Remove the underlined characters s = "ba". The resulting string is s = "". Return the value of the string s right before applying the last operation. In the example above, answer is "ba".

PROGRAM:

```
def func(s):
    for char in range(ord('z'), ord('a') - 1, -1):
        char = chr(char)
        if char in s:
            s = s[:s.index(char)] + s[s.index(char) + 1:]
    return s
s = "aabcbbca"
print(func(func(s)))
```

OUTPUT:

```
PS C:\Users\chall\OneDrive\Desktop\DAA> & C:/Users/chall/AppData/Local/Programs/Python/Python312/python.exe
"
ba
PS C:\Users\chall\OneDrive\Desktop\DAA>
```

TIME COMPLEXITY:

Time complexity for the above code is O(n)