

1.1 Is Unique - determine if a string has all Unique characters.

→ Input → Return values → Pseudocode → Questions  
Simplest Version of the problem

IN - "a"

OUT - "a" → True

Problem v2

IN - "ab"

OUT - ~~True~~ True

Problem v3

IN - "abac" → aabc

OUT - ~~True~~ False

Code:

```
def isUnique(string):  
    l = list(string)  
    sort.l.sort()  
    for i in range(len(sort)-1):  
        if sort[i] == sort[i+1]:  
            return false  
    return true
```

#SOLUTION → mergesort

- Sort the chars
- Compare each char with successor

- ~~Make~~ Make an boolean Array and put true if it has already been used
- As you iterate you check if a char is marked true.

$O(n)$  - Time

$O(1)$  - space

- Use a bitwise

- Notes from solution -

- Ask is string is ASCII or Unicode

- Return false if num characters exceeds 128 or

- 109,384 chars in Unicode 6.0 → 1,111,998

- Sorting only works if you can modify the string