

Valid Anagram

s = anagram \Rightarrow nagaram ✓✓

t = rat \Rightarrow cat ✗
↓
strings

[a, n, a, g, r, a, m]
↓ ↓ ↓ ↓ ↓ ↓ ↓
↓ ↓ ↓ ↓ ↓ ↓ ↓

↳ same size

↳ identical letters

Al: Brute Force

sort(s) == sort(t)

↓
True

↳ TC: Quick Sort
↳ $(n \log n)$

A2: Bucket Array

s		t
A	1 1 1 1 1	-1 -1 -1
B		
C		
i		

Sum = 0

i			$\text{Sum} = 0$ \Downarrow Anagram
:			
G	+1	-1	
:			
M	+1	-1	
N	+1	-1	
R	^{2nd} +1	-1	

Code:

$S = S.\text{toLowerCase}();$

$t = t.\text{toLowerCase}();$

// Strip white space

$S = S.\text{replace}(" ", "");$

$t = t.\text{replace}(" ", "");$

// bucket array

vector<int> counts(26)

// Filling the bucket

```
for (int i=0; i<s.size(); i++)  
{  
    counts[s.charAt(i)-'a']++;  
}
```

// Empty the bucket

```
for (int i=0; i<t.size(); i++)  
{ counts[t.charAt(i)-'a']--;  
}
```

```
for (int count: counts)  
{ if (count != 0)  
    { return false;  
    }
```

```
    }  
    }  
return true;
```

