**Running Time**

1. **String Cleaning Operation**
   1. String cleanedString1 = string1.replaceAll("\\s+", "").toLowerCase();
   2. The replaceAll method takes O(n1) time, and the toLowerCase also takes the same time.
      1. Hence the total time to clean **String 1 is O(n1) and for String 2 is O(n2)**
2. **Checking Lengths**
   1. **The if-statement:** if (cleanedString1.length() != cleanedString2.(length))has a **constant time operation** **O(1).**
   2. For (int i = 0; i < cleanedString1.length(); i++) - since I’m comparing two characters per iteration (and the loop runs for the length of the string) -> it takes **O(n)** time.
3. **Overall Time Complexity**
   1. **Cleaning Both Strings: O(n)**
   2. **Comparing characters in the for-loop: O(n).**

* Hence, this algorithm's overall time complexity is **O(n) => n = the length of the input string. (thus**, it runs in **linear time**)