

1.Easy\07.Valid_anagram.cpp

```
1  /*
2  QUESTION:-
3  Given two strings s and t, return true if t is an anagram of s, and false otherwise.
4  An Anagram is a word or phrase formed by rearranging the letters of a different word or
   phrase, typically using all the original letters exactly once.
5
6  Example 1:
7
8  Input: s = "anagram", t = "nagaram"
9  Output: true
10 Example 2:
11
12 Input: s = "rat", t = "car"
13 Output: false
14
15 Problem: Valid Anagram
16
17 Approach:
18 1. Create an unordered map to store the count of each character in string `s`.
19 2. Iterate over each character in `s` and increment its count in the map.
20 3. Iterate over each character in `t`.
21    - If the character is not present in the map or its count is zero, return false.
22    - Decrement the count of the character in the map.
23    - If the count becomes zero, remove the character from the map.
24 4. After iterating through all characters in `t`, if the map is empty, return true;
   otherwise, return false.
25
26 Code:
27 */
28
29 bool isAnagram(string s, string t) {
30     unordered_map<char,int>mp;
31     for(auto c:s)
32         mp[c]++;
33     for(auto c:t){
34         if(mp.find(c)==mp.end())
35             return false;
36         mp[c]--;
37         if(mp[c]==0)
38             mp.erase(c);
39     }
40     return (mp.size()==0);
41 }
42
43 /*
44 Time complexity: O(max(s.length(), t.length()))
45 Space complexity: O(s.length())
46 */
```