

Experiment No: 7 - Checking Whether Two Strings Are Anagrams Using User-Defined Function

Aim

To design and implement a Python program to check whether two given strings are **Anagrams** of each other using a user-defined function.

Definition: Two strings are said to be anagrams if they contain the same characters with the same frequency, but arranged in a different order.

Examples

- Listen → Silent ✓
- Dormitory → Dirty room ✓
- Hello → World ✗ (Not anagrams)

Problem Statement

Write a Python program that performs the following tasks:

1. Accept two strings from the user.
2. Define a user-defined function `is_anagram(str1, str2)` that checks whether the two strings are anagrams.
3. Ignore spaces and case differences while checking.
4. Compare the characters of both strings.
5. Display whether the given strings are anagrams or not.

Input

- First string
- Second string

Output

- Message indicating whether the given strings are anagrams or not anagrams

Concepts Used

- User-defined functions (def)
- String manipulation
- Built-in functions (`lower()`, `replace()`, `sorted()`)
- Conditional statements (if, else)
- Input/output statements

Result

Thus, a Python program using a user-defined function to check whether two strings are anagrams was successfully designed and implemented.

Test Case: 1

Sample Input:

Enter the first string: Listen
Enter the second string: Silent

Sample Output

The given strings are Anagrams.

Test Case: 2

Sample Input:

Enter the first string: HeLLo
Enter the second string: World

Sample Output

The given strings are Not Anagrams