

COL216 ASSIGNMENT-1

by Harshit Mawandia

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Report:

I have used 3 separate files.

1. *test.s*
2. *String_comp.s*
3. *UsefulFunctions.s*

1. test.s:

This file contains our *main* function and is mainly to take user inputs and give output.

On running this program, The console asks you to enter 2 *strings* of length upto 1024 characters terminating with a `\r` or `\n` and then an Integer 0 or 1 to check for case insensitive or case sensitive comparison respectively.

This user input is done by using *fgets* function.

Then we call the *compare* function which compares the strings and returns 0, 1 or 2 depending upon whether the string A is less than, equal to or greater than string B

2. String_comp.s:

This program compares 2 strings and checks which one is lexicographically smaller. This is done by iterating through the lines of code and checking until one character is different between the two strings. If no such character is found, We say the strings are equal.

We also have a chunk of code which converts lower case characters to upper case in case we need to do a case insensitive comparison.

3. UsefulFunctions.s:

We use the *prints* and the *fgets* functions with slight modification to take input and produce an output from and to the console respectively in our *test.s* file.

Results:

String 1: harshit
String 2: Harshit
Integer: 0
Output: Equal Strings

String 1: harshit
String 2: Harshit
Integer: 1
Output: 2nd String less than 1st String

String 1: H
String 2: Harshit
Integer: 1
Output: 1st String less than 2nd String

String 1: aamnmnfnvnfjvk
String 2: Harshit
Integer: 0
Output: 1st String less than 2nd String

String 1: aamnmnfnvnfjvk
String 2: Harshit
Integer: 1
Output: 2nd String less than 1st String

String 1: a
String 2: ab
Integer: 1
Output: 1st String less than 2nd String