**North South University**

**Department of Electrical and Computer Engineering**

**CSE 115L: Programming Language I Lab**

**Week 07 – Assignments**

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1. Write a program that converts all lowercase characters in a given string to its equivalent uppercase character without using any library function.
2. Write a program that converts a string like "124" to an integer 124.
3. Write a program that replaces two or more consecutive blanks in a string by a single blank. For example, if the input is : Grim return to the planet of apes !!
   the output should be : Grim return to the planet of apes!!
4. Write a C Program to Find the Frequency of a Character in a String.
   Sample Input String: abaacton
   Sample Input Character: a
   Sample Output: 3
5. Write a C Program to remove all Characters in a String except digits.
   Sample Input String: a5R899Lj4
   Sample Output: 58994
6. Write a C Program to check whether a string is palindrome or not.
   Sample Input: abba Sample Output: Yes
   Sample Input: abaa Sample Output: No
7. Write a C program to remove all occurrence (except the first one) of a character in given string.
   Sample Input: abttpatp
   Sample Output: abtp
8. Write a C program to take a string as input and
   I. Find the maximum occurring **Special Character** of that string and also find the number of occurrence of that Special Character.
   II. Eliminate all the characters **except** alphabets from that given string and print the remaining string.

   **Sample Input:** h3.ell%1o&.wo%r#l%d
   **Sample Outputs:** The maximum occurring Special Character is '%'
   It appeared 3 times
   Filtered String : helloworld

9. Write a C program to take a string as input and
   a. Count the total number of words in a string.
   b. Eliminate all the characters **except** alphabets from that given string and print the remaining string.

   **Sample Input :** I love my family
   **Sample Outputs:** There are 4 words
   Filtered String : Ilovemyfamily

10. Write a C program to take a string as input and

i. Count the total number of alphabets, digits and special characters in that string.
ii. Eliminate all the characters **except** digits from that given string and print the remaining string.

**Sample Input :** 7%a:u8^bq$>#7Q2

**Sample Outputs:** Number of Alphabets in the string is : 5
Number of Digits in the string is : 4
Number of Special characters in the string is : 6
Filtered String : 7872

11. Write a C program to take a string as input and
    a. Count total number of **vowel** and **consonant** in that string.
    b. Now replace lowercase **Vowels** by uppercase and vice-versa.

    **Sample Input :** a=Q78u*Ic?K!b$R(ow/Nf%O#x

    **Sample Outputs:** The total number of vowel in the string is : 5
    The total number of consonant in the string is : 9
    Filtered String : A=Q78U*ic?K!b$R(Ow/Nf%o#x

12. Write a C program to take a string as input and
    I. Find the **largest** and **smallest** word in that string
    II. Now change the case of the **largest** word to **uppercase** and print the updated string.

    **Sample Input :** I love myself

    **Sample Outputs:** The largest word is 'myself'
    The smallest word is 'I'
    Filtered String : I love MYSELF

13. Write a C program to take a string as input and
    a. Count total number of **vowel** in that string and print it.
    b. If the number of Vowels are greater than 4 then eliminate the blank spaces and print the updated string.

    **Sample Input:** I love travelling

    **Sample Outputs:** The total number of vowel in the string is : 6
    Filtered String: Ilovetravelling

14. A password is called STRONG if it holds all of the following properties:
    (a) It has at least 8 characters.
    (b) It contains at least one lower case letter, and at least one upper case letter.
    (c) It does not contain any blank space.
    Write down a C program that will take a password as input to a string and will print a message indicating whether it is STRONG or WEAK.
    Sample input: Strange
    Sample output: The password is WEAK