#### CA3001 - Programming and Data Structures using C

# **Assignment 8**

## [19.01.2021 - Tuesday - Lab 8]

#### **Common to All Students:**

#### Write a C Program for the following problem statements

- 1. read from a terminal using scanf function and print using printf function.
- 2. read a lines of text from a terminal using fgets function and print using puts function.
- 3. convert
- a. Upper case to Lower case
- b. Lower case to Upper case
- c. Toggle case
- d. Sentence case
- 4. perform String Concatenation (With and Without String Handling Functions).
- 5. perform String Reversal (With and Without String Handling Functions).
- 6. perform Substring Extraction (With and Without String Handling Functions).
- 7. copy one string into another and count the no of elements copied. (With and Without String Handling Functions).
- 8. read a string and prints if it is a palindrome or not.
- 9. read a line of text and count all occurrences of particular word.
- 10. read a string and rewrite it in the alphabetical order.
- 11. Print the Words Ending with Letter S
- 12. Delete All Repeated Words in the line of text.

#### **Practice Ouestions [Optional]:**

#### Write a C Program for the following problem statements

- 1. find the number of vowels, consonants, numerals and special characters in a text string.
- 2. print the alphabet set a to z and A to Z in decimal and character form.
- 3. read 2 string constants into a and b. Compare whether they are equal or not. if not, join them together. Then copy the contents of a to the variable c. At the end of the program, print the contents of all three variables and their length. (With and Without String Handling Functions).

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- 4. read a line of text and count all occurrences of particular character.
- 5. Remove all Characters in a String except alphabet
- 6. count no of characters and words in the line of text.
- 7. using for loop to print the following output:

S

SM

**SMA** 

.

••

...

**SMART HACKATHON** 

...

..

.

**SMA** 

SM

S

- 8. extract the portion of character string and print the extracted string.
- 9. extract the portion of words from line of text and print the extracted line of text.
- 10. replace a particular character by another character in a string.
- 11. replace a particular word by word character in a line of text.

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