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School of Computer Science and Engineering

LAB – 6: Exercise

Course Code	:	**CSE3041 – Programming for Data Science (MIA)**	**Date**	:	**29/07/2020**
Lab Experiment	:	**Practical Exercises on strings in Python**	**Slots**	:	**L49+L50+L51 L58+L59+L60**
Instructors	:	**Prof. Ramesh Ragala**			

Objective: To illustrate the notions of string in Python

1. Write a program that takes your full name as input and displays the abbreviations of the first and middle names except the last name which is displayed as it is. For example, if your name is Ragala Ramesh Babu, then the output should be R. R. Babu.
2. Write a program to find the number of vowels, consonents, digits and white space characters in a string.
3. Write a program to find out the largest and smallest word in given string. Example: String: VIT University Chennai :Ans:University and VIT.
4. Write down the names of 10 of your friends in a list and then sort those in alphabetically ascending order.
5. Write a program to check if a given string is a Palindrome.
6. Write a program to check if the two strings entered by user are anagrams or not. Two words are said to be anagrams if the letters of one word can be rearranged to form the other word. For example, jaxa and ajax are anagrams of each other.
7. Let us assume, the given string is str1 = "P@#yn26at^&i5ve". You need to write a python program to total number of chars, digits and symbols.

8. Write a program that accepts a comma separated sequence of words as input and prints the words in a comma-separated sequence after sorting them alphabetically.
9. Write a program that accepts sequence of lines as input and prints the lines after making all characters in the sentence capitalized.
10. Write a program that accepts a sequence of whitespace separated words as input and prints the words after removing all duplicate words and sorting them alphanumerically.
11. Write a program that accepts a sentence and calculate the number of upper case letters and lower case letters.
12. A website requires the users to input username and password to register. Write a program to check the validity of password input by users.

    Following are the criteria for checking the password:

    1. At least 1 letter between [a-z]
    2. At least 1 number between [0-9]
    3. At least 1 letter between [A-Z]
    4. At least 1 character from [$#@]
    5. Minimum length of transaction password: 6
    6. Maximum length of transaction password: 12

    Your program should accept a sequence of comma separated passwords and will check them according to the above criteria. Passwords that match the criteria are to be printed, each separated by a comma.