

## ASSIGNMENT- 8

1. Write a program to sort the given words and count the number of characters, words, lines in a given input text.
2. Write a program to read the content from a text file IN.TXT, count the number of alphabets, digits and special characters present in it and write these information into a text file OUT.TXT .
3. Write a function in C++ to count and display the number of lines not starting with 'A' present in a text file " STORY.TXT"

**Example:**

If the file "STORY.TXT" contains the following lines,

The rose is red.

A girl is playing there.

There is a playground.

An aeroplane is in the sky.

Numbers are not allowed in the password.

The function should display the output as 3

4. Write a structure to store the name, account number and balance of customers (more than 10) and store their information.
  - 1 - Write a function to print the names of all the customers having balance less than \$200.
  - 2 - Write a function to add \$100 in the balance of all the customers having more than \$1000 in their balance and then print the incremented value of their balance.
5. Write a structure to store the names, salary and hours of work per day of 10 employees in a company. Write a program to increase the salary depending on the number of hours of work per day as follows and then print the name of all the employees along with their final salaries.

Hours of work per day	8	10	$\geq 12$
Increase in salary	\$50	\$100	\$150
6. Write a program to create a structure called Student. The annual examination is conducted for 10 students for three subjects. Write a program to read the data and determine the following:
  - (a) Total marks obtained by each student.
  - (b) The highest marks in each subject and the Roll No. of the student who secured it.
  - (c) The student who obtained the highest total marks.

7. Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' with the constructor having the three sides as its parameters.
8. Write a program by creating an 'Employee' class having the following functions and print the final salary.
  - 1 - 'getInfo()' which takes the salary, number of hours of work per day of employee as parameters
  - 2 - 'AddSal()' which adds \$10 to the salary of the employee if it is less than \$500.
  - 3 - 'AddWork()' which adds \$5 to the salary of the employee if the number of hours of work per day is more than 6 hours.
9. Write a program to print the area of a rectangle by creating a class named 'Area' having two functions. First function named as 'setDim' takes the length and breadth of the rectangle as parameters and the second function named as 'getArea' returns the area of the rectangle. Length and breadth of the rectangle are entered through keyboard.
10. Write the definition for a class called complex that has floating point data members for storing real and imaginary parts. The class has the following member functions:  
void set(float, float) to set the specified value in object  
void disp() to display complex number object  
complex sum(complex) to sum two complex numbers & return complex number
  - i. Write the definitions for each of the above member functions.
  - ii. Write main function to create three complex number objects. Set the value in two objects and call sum() to calculate sum and assign it in third object. Display all complex numbers.