Q1 Copy the contents of one text file to another file, after removing all whitespaces.

Q2. Count the number of words in the given text file.

Q3 Define a class Person having a name as a data member. Inherit two classes, Student and Employee, from Person. The student has additional attributes such as course, marks and year, and Employee has department and salary. Write a display () method in all the three classes to display the corresponding attributes. Provide the necessary methods to show runtime polymorphism

Q4 Create a Triangle class. Add exception handling statements to ensure the following conditions: all sides are greater than 0, and the sum of any two sides is greater than the third. The class should also have overloaded functions for calculating the area of a right-angled triangle and using Heron's formula to calculate the area of any type of triangle.

Q5 Use the following requirements:

a. Define Shape, TwoDim and ThreeDim as abstract classes.

b. Define PI as static class member in Shape class

c. Define area calculation and print functions as pure virtual functions in the Shape class.

d. Use public inheritance

e. Define all data or member functions common to two-dimensional shapes in the TwoDim class. Do the same for all common data or member functions to three-dimensional shapes in the ThreeDim class.

Q7 Create a template function findPos() that accepts an array, size of the array and a key element. The function finds the key in the given array and returns the index value if the key is found else returns -1. Show the implementation with int, double and string datatypes.

Q6 Create a template class Vector to show input, display and addition of two Vectors. Implement it with int and double datatypes.

Q8 Rewrite program 1 to incorporate command line arguments and exception handling to raise appropriate errors.

Q9 WAP to print a triangle of stars as follows (take the number of lines from the user):

ABCDEFGHI

ABCD FGHI

ABC GHI

AB HI

A I

Q10 Write a program that prints a table indicating the number of occurrences of each alphabet in the text entered as command line arguments.

Q11 Write a menu-driven program to perform string manipulation (without using inbuilt string functions):

i) Show the address of each character in the string

ii) Concatenate two strings.

iii) Compare two strings

iv) Calculate the length of the string (use pointers)

v) Convert all lowercase characters to uppercase

vi) Reverse the string

vii) Insert a string in another string at a user-specified position