School of Information Technology and Engineering

BCSE102P -Structured and Object-Oriented Programming Lab

Digital Assignment -II

SUBMISSION DATA : 3.5.2023.

1. Write a C program to generate the possible permutation of a given string using pointer.

```
Enter the string
hello

The permutation is :

hello
helol
hello
helol
heoll
heoll
hlelo
hleol
hlleo
hlloe
hloel
hlole
hlelo
hleol
hlleo
hlloe
hloel
hlole
hoell
```

2. Write a program to count the number of occurrences of any two vowels in succession in a line of text using dynamic memory allocation.

Input: Please read this application and give me gratuity

Output : ea , ea ,ui

3. create a structure called library to hold accession number ,title of the book,author name,price of the book,and flag indicating whether book is issued or not. Write a menu driven program that implements the working of a library. The menu options should be

1. adding book information
2. display book information
3. List all books of given author
4. List the title of specified book
5. List the count of books in the library
6. List the books in the order of accession number
7. exit

4. Kristen is a contender for valedictorian of her high school. She wants to know how many students (if any) have scored higher than her in the exams given during this semester.

Write a c++ program with a class named student with the following specifications:

An instance variable named score to hold a 5 student's exam scores.

A void input() function that reads 5 integers and saves them to scores

An *int calculateTotalScore()* function that returns the sum of the student's scores.

Constraints

1<=n<=100
0<=scores<=50

The first line contains , the number of students in Kristen's class. The subsequent lines contain each student's exam grades for this semester.

Input:

3

30 40 45 10 10

40 40 40 10 10

50 20 30 10 10

Kristen's grades are on the first line of grades

Sample Output

1

Only 1 student scored higher than her.

5.A farmer is asking you to tell him how many legs can be counted among all his animals. The farmer breeds three species:

- ***chickens = 2 legs***
- ***cows = 4 legs***
- ***pigs = 4 legs***

Write a c++ program to create a class named ***farmer*** which has the data members chicken, cows and pigs and also has member function called ***animals***() to receive the input . He has maintained 4 different farm and wants to send the following inputs to you (input)

farm1 :animals(2, 3, 5)

farm2:animals(1, 2, 3)

farm3:animals(5, 2, 8)

farm4 :animals(17,6,9)

You have to implement a function as comput_legs that returns the **total number of legs** of all the animals of his farms.

Sample output: 202