

Programming Fundamentals (CL-1002)

Lab 11

Task_01:

Write a program to implement the exchange or swap the values of 3 variables{a,b,c}. To implement this, you need to write a function called swaped().

```
void swaped(int *aPtr, int *bPtr, int *cPtr);
```

such that; b ----> temp

a ----> b

c ----> a

temp -> a

Task_02:

Write a program that calculates the sum of all the elements in array using pointers

Task_03:

Write a program that finds the second highest number in a float type array of 20 elements using pointer.

Task_04:

Write a program that implements the function(WordCount).

```
int WordCount(char *Text, int *size);
```

Task_05: Write a program to print the following pattern using pointer and loops

```
UN
UNIV
UNIVER
UNIVERSI
UNIVERSITY
UNIVERSI
UNIVER
UNIV
UN
```

Task_06:

Write a program that takes N no of character in an array. Now you need to correct the array and convert it into the Sentence Case. To correct that, you need to pass that array to a function using pointer.

```
void SentenceCase(char *Text, int *size);
```

In the end you need to print the array in Main() to check.

Sentence Case: You capitalize just the first letter of the first word in sentence. The rest of the words and letters in the title should not be capitalized. Also the first letter after the fullstop(.)

Task_07:

Read an array through pointer and search for how many times a certain word has occurred in the given array. Example: Your word: is Search in: your task is to display the number which is given by user.

Occurrence: 2 times

Task_08:

Write a program in C using pointers for the union and intersection of two sets A and B:

- a. The union is the set that contains members of each of the two sets A and B.
- b. The intersection contains only those members that are members of both the sets A and B.

Task_09:

Write a program in C to count the number of vowels and consonants in a string using a pointer.

Task_10

Write a program that dynamically allocates 2 matrices A and B of order (nxn). Matrix A will be inputted by the user. Matrix B will be form as:

A

1	2	3
7	8	9
4	5	6

B

7	7	7
16	16	16
7	7	7

- First element of matrix B is the sum of first and last element of matrix A
- Second element of matrix B is the sum of second and second last element of matrix A and so on.

Task_11

Write a program that ask the user to enter the total 'N' no of characters in user's name {First Name + Last Name} to create a dynamic array of characters. After create a dynamic array of that 'N' no of characters using malloc or calloc function. Finally copy your full name in it that has already been taken from the user before
Dynamic Array = "Batch 2021";