

Programming Fundamentals (CL-1002)

Lab 11

Task_01:

You need to implement the the following 2 struct.

```
struct Student{}; struct Register{};
```

Student contains attribute StudentId, FirstName, LastName, cellNo, email.

Register contains attribute CourseId, CourseName.

Now you need to inherit the Register struct in Student struct. It means that student struct holds the variable of Register struct variable. After that you need to take input for 5 students and then print them

[Hint: Declare array of struct Student std[5]; for 5 students]

Task_02:

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 swapped().

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

```
Enter value of num1: 3
Enter value of num2: 4
Enter value of num3: 5
Before Swapping: num1 is: 3, num2 is: 4, num3 is: 5
After Swapping: num1 is: 4, num2 is: 5, num3 is: 3
```

Task_03:

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

Task_04:

Write a program to find the min and max from an array using pointers.

Task_05:

Write a program to create a calculator using array of pointer to function.

Task_06:

Write a program that implements the function(WordCount).

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

```
ENTER A STRING: Eman shahid
You have entered: Eman shahid
THERE ARE 2 WORDS IN THE STRING
```

Task_07:

Write a program that implements the SortFunction that takes argument pointer to an array, size of the array and the order in which it is going to be sort. Such as, 1 for Ascending order and 2 for Descending orde. Finally, print this array in Main() to check.

```
void SortFunction(int *arr, int *size, int order);
```

Task_08:

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 = "Muhib Ahmed";
```