***Assignments*** **Deadline: Wednesday (before 12 am)**

**Problems :**

1. In this problem you have to take an array of size 10 and write the following functions:
   1. Add() function that add the elements in the array.
   2. Display() function that displays the elements in the array.
   3. Reverse() function that reverse the overall array
   4. Search() function that searches the values in the array and also try to find duplications in values.
2. Write a program using arrays and using pointer try to learn the memory address in the memory and actually visualize it and try it for various data types.
3. Write a class named car and takes various parameters and perform all the necessary operations using class member functions only.

Extend this program to do these using access modifiers and also write overloaded.

1. In this problem you have to take an array of size 10 and write the Push, Pop and Display functions for that and also take care of overflow and underflow conditions. All the work must be done in classes.

1. Furthermore you must write isEmpty(), isFull() and status() function.
2. isEmpty() has return type of Boolean and check the underflow.
3. isFull() has return type of Boolean and check the overflow.
4. Status() tells the current available spaces in the stack.

Also perform following function

Create two objects of above class provide inputs and also check wether the two stacks are equal or not by writing equal() function

In above case size of stack is fixed do all the work with size provided by user.

1. In this problem you have to take an array of size 10 and write the Enqueue, Dequeue and Display functions for that and also take care of overflow and underflow conditions. All the work must be done in classes.

1. Furthermore you must write isEmpty(), isFull() and status() function.
2. isEmpty() has return type of Boolean and check the underflow.
3. isFull() has return type of Boolean and check the overflow.
4. Status() tells the current available spaces in the stack.
5. In this problem you have to take an array of size 10 and divide it into two equal parts. In half part apply Stack and in remaining half apply Queue.

Best of luck ☺