The first assignment

Operations on array

-as we can see the program will execute line by line from the beginning of the main, we will create 3 variables ch, ITEM and K ch being the storage, ITEM is the elements we will insert or to delete after we insert them after this, we will start a while loop and we will put the print statements that will create the menu to select which operation to choose from.

And then we will start the switch statement and the condition will be taken from ch because it’s the storage that will hold what user input is stored in; in this switch statement there will be 4 cases.

the first one is when the user enter 1 and this case will check if the array is full by using IsFull()what this going to do is check if N=size, size being the constant number of elements 10 if they are equal that means that this array is full and we can’t insert anything to it if they are not equal will continue running and ask the user to insert elements to the array by storing the input in ITEM and in K index and here will run Find\_Location\_To\_Insert () and we will pass ITEM to it.

Inside Find\_Location\_To\_Insert(ITEM) we have a for loop that will run as long as I is bigger than N which is the number of elements in the array which we have as constant 10 after finding the location to insert we will run Insert(K,ITEM) and what this will do is a for loop that will run is long as i is bigger than K and in this for loop we will shift the elements for one index and after this will give ITEM the value that array A have and increment N by 1 each time.

And case 2 is to delete elements from the array at the start of the case unlike case 1 we will run IsEmpty () because in this case we will delete elements from the array and if the array is empty we can’t delete anything and in IsEmpty () we will check if N==0 then that means this array is empty and we cant insert any more variables to it otherwise we can.

And then if the array is not empty we can carry on executing the rest of case 2, after we make sure that the array is not empty the program will run Delete(K,ITEM) and this will have a for loop that will execute from the value of K to N-1 because we need to move and then decrease N by 1 and then give back the value of ITEM

Code and output:





