Day – 50 of the #101 days of the coding challenge----------

Problem→ Left and Right shifting elements according to the given position by the user.

Code:-

```
#include <iostream>

using namespace std;

void rightShiftArray(int *arr, int position, int n)
{
   if (position < 0) {
      cout << "Invalid position. Position should be non-negative." << endl;
      return;
   }
   // Right shifting
      position %= n; // Ensure position is within array size
      int temp[n];

      for (int i = 0; i < n; i++) {
```

```
        temp[(i + position) % n] = arr[i];
    }

    for (int i = 0; i < n; i++) {
        arr[i] = temp[i];
    }
}


void leftShiftArray(int *arr, int position, int n)
{
   if (position < 0) {
      cout << "Invalid position. Position should be non-negative." << endl;
      return;
   }
   //Left shifting
      position %= n; // Ensure position is within array size
      int temp[n];

      for (int i = 0; i < n; i++) {
         temp[i] = arr[(i + position) % n];
```

```
        }

        for (int i = 0; i < n; i++) {
            arr[i] = temp[i];
        }
    }
int main()
{
    int n;
    cout << "Enter the size of the array: ";
    cin >> n;

    int arr[n];
    cout << "Enter the elements of the array for right shift:" << endl;
    for (int i = 0; i < n; i++) {
        cin >> arr[i];
    }

    int arr1[n];
    cout << "Enter the elements of the array for left shift:" << endl;
    for (int i = 0; i < n; i++) {
```

```
    cin >> arr1[i];
}

int position;
cout << "Enter the number of positions to shift: ";
cin >> position;

cout << "Right Shift---->"<<endl;;
rightShiftArray(arr, position, n);

 for (int i = 0; i < n; i++) {
    cout << arr[i] << " ";
}

cout << endl;
cout << "Array after shifting:" << endl;

cout << "Left Shift---->"<<endl;;

leftShiftArray(arr1, position, n);
```

```
    cout << "Array after left shifting:" << endl;
    for (int i = 0; i < n; i++) {
        cout << arr1[i] << " ";
    }
    cout << endl;

    return 0;
}
```

Output:-

```
Enter the size of the array: 5
Enter the elements of the array for right shift:
1 2 3 4 5
Enter the elements of the array for left shift:
1 2 3 4 5
Enter the number of positions to shift: 2
Right Shift---->
4 5 1 2 3
Array after shifting:
Left Shift---->
Array after left shifting:
3 4 5 1 2
```