

## ASSIGNMENT DAY -2

1. Write the program for deleting an element from the beginning and from any position.

Ans. `#include <stdio.h>`

```
#define MAX_SIZE 100
```

```
int main()
{
    int arr[MAX_SIZE];
    int i, size, pos;
```

```
/* Input size and element in array */
    printf("Enter size of the array : ");
    scanf("%d", &size);
    printf("Enter elements in array : ");
    for(i=0; i<size; i++)
    {
        scanf("%d", &arr[i]);
    }
```

```
/* Input element position to delete */
    printf("Enter the element position to delete : ");
    scanf("%d", &pos);
```

```
/* Invalid delete position */
    if(pos < 0 || pos > size)
    {
        printf("Invalid position! Please enter position between 1 to %d", size);
    }
    else
    {
        /* Copy next element value to current element */
        for(i=pos-1; i<size-1; i++)
        {
            arr[i] = arr[i + 1];
        }
```

```
/* Decrement array size by 1 */
    size--;
```

```
/* Print array after deletion */
    printf("\nElements of array after delete are : ");
    for(i=0; i<size; i++)
    {
        printf("%d\t", arr[i]);
    }
}
```

```
    return 0;
}
```

2. Write the program for printing the array after rotating it k times towards left, where k would be taken as user input.

**Ans.** #include <stdio.h>

```
/* Function to left Rotate arr[] of size n by 1 */
void leftRotatebyOne(int arr[], int n);
```

```
/*Function to left rotate arr[] of size n by d*/
void leftRotate(int arr[], int d, int n)
{
    int i;
    for (i = 0; i < d; i++)
        leftRotatebyOne(arr, n);
}
```

```
void leftRotatebyOne(int arr[], int n)
{
    int temp = arr[0], i;
    for (i = 0; i < n - 1; i++)
        arr[i] = arr[i + 1];
    arr[i] = temp;
}
```

```
/* utility function to print an array */
void printArray(int arr[], int n)
{
    int i;
    for (i = 0; i < n; i++)
        printf("%d ", arr[i]);
}
```

```
/* Driver program to test above functions */
int main()
{
    int arr[] = { 1, 2, 3, 4, 5, 6, 7 };
    leftRotate(arr, 2, 7);
    printArray(arr, 7);
    return 0;
}
```