Lab- Evaluation -1

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```
#define MAX_SIZE 100
#include<stdio.h>
int main()
{
    int arr[MAX_SIZE], result[MAX_SIZE],
        stack[MAX_SIZE], n, top;
    top = -1;
    // printf("Enter the value of n: ");
    scanf("%d", &n);
    for (int i=0; i<n; i++)
    {
        while(top!=-1)
        scanf("%d", &arr[i]);
    }
    for (int i=0; i<n; i++) {
        while(top!=-1 && stack[top]>=a
        {
            top--;
        }
        if (top==-1)
        {
            result[i] = -1;
        }
        else
        {   result[i] = stack[top];
        }
```

```
        top++;
        stack[top] = arr[i];
    }
    for (int i=0; i<n; i++) {
            printf("%d ", result[i]);
    }
    return 0;
}
```

Q2.

```
#include <stdio.h>
#define SIZE 10

int q[SIZE], front = -1, rear = -1;

void enqueue(int value) {
    if (rear == SIZE - 1)
    {
        printf("\nqueue is full");
    }
    else {
        if (front == -1)
        {
            front = 0;
        }
        rear++;
        q[rear] = value;
    }
}

void dequeue() {
    if (front == -1)
    {
        printf("\nqueue is Empty!");
    }
    else {
        printf("\n Deleted: %d", q[front
        front++;
        if (front > rear) {
            front = rear = -1;
    }
}
```

```
void front () {
    if (rear == -1)
        printf ("\n Queue is Empty!");
    else
        print ("front Element is : %d,
                                q[front]);
}

int count () {
    return rear - front;
}

void reorder (int k, int arr(), int n) {
    int temp;
    for (int i = k+1; i > 0; i--)
    {
        enqueue (arr[i]);
    }
    for (int i = k ; i<n; i++) {
        enqueue (arr[i]);
    }.

void display () {
    if (rear == -1)
        printf ("\n Queue is Empty!");
    else {
        int i;
        printf ("\n queue elements are: \n");
        for (i = front; i<=rear; i++)
            printf ("%d", q[i]);
    }
```

```
    printf("\n");
}

int main() {
    int n, arr[SIZE], k;
    printf("Enter no. of Elements: ");
    scanf("%d", &n);
    for(int i = 0; i<n; i++)
        scanf("%d", &arr[i]);
    printf("Enter k: ");
    scanf("%d", &k);
    reorder(k, arr, n);
    display();
    return 0;
}
```