

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#define max 100

int q[max], front=1, rear=-1;
void insert();
void delete();
void display();

void main()
{
    while(1)
    {
        printf("Enter your choice\n");
        printf("1.Enqueue\n 2.Dequeue\n 3.Display\n 4.Exit\n");
        int choice=0;
        scanf("%d", & choice);
        switch(choice)
        {
            case 1:
                insert();
                break;
            case 2:
                delete();
                break;
            case 3:
                display();
                break;
            case 4:
                exit(0);
                break;
            default:
                printf("Incorrect Input\n");
        }
    }
}

void insert()
{
    int val=0;
    printf("Enter value to be inserted\n");
    scanf("%d", & val);
```

```
    if(rear==max-1)
printf("Queue Overflow\n");
    if (front==-1||rear==-1)
    {
        front=0;
        rear=0;
    }
    else{
        rear=rear+1;
    }
    q[rear]=val;
}

void delete()
{
    if (front>rear||front==-1)
    {
        printf("Queue Underflow\n");
    }
    else{
        printf("%d has been deleted\n",q[front]);
        front=front+1;
    }
}

void display()
{
    printf("The queue is-\n");
    for(int i=front; i<=rear; i++)
        printf("%d\t\t",q[i]);
    printf("\n");
}
```

```
PS C:\Users\kadab\OneDrive\Desktop\DS> gcc three.c
PS C:\Users\kadab\OneDrive\Desktop\DS> .\a.exe
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
1
Enter value to be inserted
1
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
1
Enter value to be inserted
2
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
1
Enter value to be inserted
3
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
3
The queue is-
1          2          3
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
2
1 has been deleted
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
3
The queue is-
2          3
Enter your choice
1.Enqueue
2.Dequeue
3.Display
4.Exit
4
PS C:\Users\kadab\OneDrive\Desktop\DS> 
```

Both
opsec

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