

```
}  
else  
{  
    printf("Element deleted from the queue is %d\n",queue[front]);  
    front=front+1;  
}  
}
```

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

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  #define size 50
4
5  int queue[size];
6  int rear=-1;
7  int front=-1;
8
9  void insert()
10 {
11     int x;
12     if(rear==size-1)
13         printf("Queue overflow\n");
14     else
15     {
16         if(front==-1)
17             front=0;
18         printf("Insert an element in queue: ");
19         scanf("%d",&x);
20         rear=rear+1;
21         queue[rear] = x;
22     }
23 }
24
25
26 void delete()
27 {
28
29     if(front==-1 || front>rear)
30     {
31         printf("queue is underflow\n");
32         return;
33     }
```

```
55
56
57 void main()
58 {
59     int ch;
60     while(1)
61     {
62         printf("\n");
63         printf("1:Insert an element\n");
64         printf("2>Delete an element\n");
65         printf("3:Display an element\n");
66         printf("4:Exit \n");
67         printf("Enter your choice\n");
68         scanf("%d",&ch);
69         switch(ch)
70         {
71             case 1:
72                 insert();
73                 break;
74
75             case 2:
76                 delete();
77                 break;
78
79             case 3:
80                 display();
81                 break;
82
83             case 4:
84                 exit(1);
85                 break;
86
87             default:
```

```
87         default:
88             printf("Wrong choice\n");
89         }
90     }
91 }
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
1
Insert an element in queue: 6
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
1
Insert an element in queue: 8
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
3
Queue is: 6      8
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
2
Element deleted from the queue is 6
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
3
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
1
Insert an element in queue: 8
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
3
Queue is: 6      8
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
2
Element deleted from the queue is 6
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
3
Queue is: 8
```

```
1:Insert an element
2:Delete an element
3:Display an element
4:Exit
Enter your choice
4
```