

```

1  #include <stdio.h>
2  #include<stdlib.h>
3  #include<string.h>
4  int max;
5  int cqueue[100];
6  int front=-1, rear=-1;
7
8  void enqueue(int);
9  void deque();
10 void display();
11
12 int main()
13 {
14     int choice, item;
15     printf("Enter the number of calls waiting: \n");
16     scanf("%d",&max);
17     do{
18         printf("\n1.Insert \n2.Delete \n3.Display \n4.Exit\n");
19         printf("Enter choice: \n");
20         scanf("%d", &choice);
21
22         switch(choice){
23             case 1: if((front==0) && (rear==max-1) || (front==rear+1))
24             {
25                 printf("Queue full, please call later\n");
26             }
27             else{
28                 printf("Enter call no. : \n");
29                 scanf("%d", &item);
30                 enqueue(item);

```



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29         scanf("%d", &item);
30         enqueue(item);
31     }
32     break;
33     case 2: deque();
34     break;
35     case 3: display();
36     break;
37     case 4: exit(0);
38     default: printf("Invalid choice\n");
39     }
40 }while(choice!=4);
41 return 0;
42 }
43
44 void enqueue(int ele)
45 {
46     if((front==rear+1) || (front==0 && rear==max-1))
47     printf("System reached max capacity. Please call later\n");
48     else{
49         int p_no;
50         char name[100];
51         if(front==-1)
52         front=0;
53         return;
54         rear==(rear+1)%max;
55         printf("Enter name and phone no. : \n");
56         fflush(stdin);
57         scanf("%c", &name);
58         scanf("%d", &p_no);

```



main.c

```
54     rear==(rear+1)%max;
55     printf("Enter name and phone no. : \n");
56     fflush(stdin);
57     scanf("%c", &name);
58     scanf("%d", p_no);
59     cqueue[rear]=ele;
60     printf("You are in queue\n");
61 }
62 }
63
64 void deque()
65 {
66     int item;
67     if((front==-1) && (rear==-1))
68     {
69         printf("Queue empty, you have no calls\n");
70         return;
71     }
72     else{
73         item= cqueue[front];
74         if(front==rear)
75         {
76             front=-1;
77             rear=-1;
78         }
79         else {
80             front=(front+1)%max;
81         }
82     }
83     printf("Call deleted\n");
84     return;
```

input



.c

```
77         rear=-1;
78     }
79     else {
80         front=(front+1)%max;
81     }
82 }
83 printf("Call deleted\n");
84 return;
85 }
86
87 void display()
88 {
89     int i, p_no;
90     char name[100];
91     if(front==-1 && rear==-1)
92     {
93         printf("Queue empty, you have no calls\n");
94         return;
95     }
96     else {
97         printf("Queue call details: \n");
98         for(i=front; i!=rear; i=(i+1)%max)
99         {
100             printf("Customer name: ", name[i]);
101             printf("Phone no. : ", p_no);
102         }
103         printf("%d ", cqueue[rear]);
104         return;
105     }
106 }
```

input



Enter the number of calls waiting:

2

1.Insert

2.Delete

3.Display

4.Exit

Enter choice:

1

Enter call no. :

1

1.Insert

2.Delete

3.Display

4.Exit

Enter choice:

1

Queue full, please call later

1.Insert

2.Delete

3.Display

4.Exit

main.c

```
return;  
}  
86  
87 void display()
```

Queue full, please call later

- 1.Insert
- 2.Delete
- 3.Display
- 4.Exit

Enter choice:

2

Call deleted

<

- 1.Insert
- 2.Delete
- 3.Display
- 4.Exit

Enter choice:

2

Call deleted

- 1.Insert
- 2.Delete
- 3.Display
- 4.Exit

Enter choice:

2

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86

87 void display()



3.Display

4.Exit

Enter choice:

2

Call deleted

1.Insert

2.Delete

3.Display

4.Exit



Enter choice:

2

Call deleted

1.Insert

2.Delete

3.Display

4.Exit

Enter choice:

4

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...Program finished with exit code 0  
Press ENTER to exit console.

