

main.c

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #define MAX 3
4
5 int front=0;
6 int rear=-1;
7
8 int queue[MAX];
9
10 void Enque(int);
11 int Deque();
12 void display();
13 int main(int argc, char **argv)
14 {
15     int option;
16     int item;
17     do{
18         printf("\n 1. Insert to Queue (EnQueue)");
19         printf("\n 2. delete from the Queue (DeQueue)");
20         printf("\n 3. Display the content ");
21         printf("\n 4. Exit\n");
22         printf("Enter the option :");
23         scanf("%d",&option);
24         switch(option)
25         {
26             case 1: printf("Enter the element\n");
27             break;
```



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25     {
26         case 1: printf("Enter the element\n");
27             scanf("%d",&item);
28             Enque(item);
29             break;
30         case 2: item=Dequeue();
31             if(item==-1)
32                 printf("Queue is empty\n");
33             else
34                 printf("Removed element from the queue
35                     %d",item);
36             break;
37         case 3: display();
38             break;
39         case 4: exit(0);
40     }
41 } while (option!=4);
42 return 0;
43
44 void Enque(int ele)
45 {
46     if (near==MAX-1)
47         printf("Queue is full\n");
48     else
49     {
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46     if (rear==MAX-1)
47         printf("Queue is full\n");
48     else
49     {
50         rear++;
51         queue[rear]=ele;
52     }
53 }
54 int Deque()
55 {
56     int item;
57     if(front == -1)
58         return -1;
59     else
60     {
61         item=queue[front];
62         front++;
63         if(front>rear)
64         {
65             front=-1;
66             rear=-1;
67         }
68     }
69     return item;
70 }
71
72
```



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68     }
69     return item;
70 }
71
72 }
73
74 void display()
75 {
76     int i;
77     if(front==-1)
78         printf("Queue is empty\n");
79     else
80     {
81         printf("\n Queue contents:");
82         for(i=front;i<=rear;i++)
83             printf("%d", queue[i]);
84     }
85 }
```

