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1  #include <stdio.h>
2  #include<stdlib.h>
3  #define MAX 50
4  void insert();
5  void delete();
6  void display();
7  int queue_array[MAX];
8  int rear = - 1;
9  int front = - 1;
10 int main()
11 {
12     int choice;
13     while (1)
14     {
15         printf("1.Insert element to queue \n");
16         printf("2.Delete element from queue \n");
17         printf("3.Display all elements of queue \n");
18         printf("4.Quit \n");
19         printf("Enter your choice : ");
20         scanf("%d", &choice);
21         switch(choice)
22         {
23             case 1:
24                 insert();
25                 break;
26             case 2:
27                 delete();
28                 break;
29             case 3:
30                 display();
31                 break;
32             case 4:
33                 exit(1);
34             default:
35                 printf("Wrong choice \n");
36         }
37     }
38 }
39 void insert()
40 {

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41 int item;
42 if(rear == MAX - 1)
43 printf("Queue Overflow \n");
44 else
45 {
46 if(front == - 1)
47 front = 0;
48 printf("Inset the element in queue : ");
49 scanf("%d", &item);
50 rear = rear + 1;
51 queue_array[rear] = item;
52 }
53 }
54 void delete()
55 {
56 if(front == - 1 || front > rear)
57 {
58 printf("Queue Underflow \n");
59 return;
60 }
61 else
62 {
63 printf("Element deleted from queue is : %d\n", queue_array[front]);
64 front = front + 1;
65 }
66 }
67 void display()
68 {
69 int i;
70 if(front == - 1)
71 printf("Queue is empty \n");
72 else
73 {
74 printf("Queue is : \n");
75 for(i = front; i <= rear; i++)
76 printf("%d ", queue_array[i]);
77 printf("\n");
78 }
79 }

```

```

1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 5
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 6
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 7
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 8
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 3
Queue is :
5 6 7 8 n1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 2
Element deleted from queue is : 5

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Inset the element in queue : 6
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 7
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 1
Inset the element in queue : 8
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 3
Queue is :
5 6 7 8 n1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 2
Element deleted from queue is : 5
1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice : 3
Queue is :
6 7 8 n1.Insert element to queue
2.Delete element from queue
3.Display all elements of queue
4.Quit
Enter your choice :
```