

queue.c

```
1  #include<stdio.h>
2  #define maxsize 5 //defining max of the queue
3  int front = -1; //setting front empty
4  int rear = -1; //setting back empty
5  int queue[maxsize]; //makng array
6
7  //making insert function
8  void insert (int item){
9      if (rear >= maxsize -1 ){
10         printf("The queu is full\n");
11     }
12
13     else{
14         rear++;
15         queue[rear] = item;
16         if (front == -1 ){
17             front = 0;
18         }
19     }
20 }
21
22 //making delete function
23 int delete(){
24     if (front == -1 ){
25         printf("Queue is empty\n");
26         return 0;
27     }
28     else {
29         int item = queue[front];
30         if (front == rear){
31             front = rear = -1;
32
33         }
34
35         else{
36             front++;
37         }
38         return item;
39     }
40 }
41
42 //making delete function
43 void display(){
44     if (front == -1){
45         printf("Queue if empty\n");
46     }
47
48     else {
```

```
49     for (int i = front; i <= rear; i++)
50     {
51         printf("The value is : %d \t\n",queue[i]);
52     }
53 }
54 }
55
56 //main body of the code
57 int main(){
58     int choise,item,loop = 1;
59
60     while (loop)
61     {
62         printf("1. Insert\n2. Delete\n3. Display\n4. Exit\n");
63         printf("Enter your choise : ");
64         scanf("%d",&choise);
65
66         switch (choise)
67         {
68             case 1:
69                 printf("Enter Data : ");
70                 scanf("%d",&item);
71                 insert(item);
72                 break;
73
74             case 2 :
75                 item = delete();
76                 printf("The deleted item is %d\n ",item);
77                 break;
78
79             case 3 :
80                 display();
81                 break;
82
83             case 4 :
84                 loop = 0;
85                 break;
86
87             default:
88                 printf("Invalid choise\n");
89                 break;
90         }
91     }
92 }
```