C despri2.c > ⊕ display()

```c
1    #include <stdio.h>
2    #include <string.h>
3    #include <stdlib.h>
4    #define MAX 6
5
6    int pq[MAX];
7    int count = 0;
8
9    void insert(int data){
10       int i = 0;
11          if(count==MAX)
12          {
13              printf("Queue overflow\n");
14              return;
15          }
16          // if queue is empty, insert the data
17          if(count == 0){
18              pq[count++] = data;
19          }else{
20              // start from the right end of the queue
21              for(i = count - 1; i >= 0; i-- ){
22              // if data is larger, shift existing item to right end
23              if(data > pq[i]){
24                  pq[i+1] = pq[i];
25              }else{
26                  break;
27              }
28          }
29
30          // insert the data
31          pq[i+1] = data;
32          count++;
33      }
34
35  }
36
37  int removeData(){
```

```c
31            pq[i+1] = data;
32            count++;
33        }
34
35  }
36
37  int removeData(){
38      return pq[--count];
39  }
40  void display()
41  {int i;
42  if (count==0)
43  {
44      printf("queue is empty\n");
45      return;
46  }
47  printf("Contents of queue: ");
48  for(i=0;i<count;i++)
49  {
50      printf("%d ",pq[i]);
51  }
52  printf("\n");
53  }
54
55  int main() {
56      int choice,item;
57      for(;;)
58      {
59          printf("\n1:insert\n2:delete_largest\n3:display\n4:exit\n");
60          printf("Enter the choice :");
61          scanf("%d",&choice);
62          switch(choice)
63          {
64              case 1:printf("Enter the item to be inserted :");
65              scanf("%d",&item);
66              insert(item);
67              break;
68              case 2:item=removeData();
```

```c
47      printf( contents or queue:  );
48      for(i=0;i<count;i++)
49      {
50          printf("%d ",pq[i]);
51      }
52      printf("\n");
53      }
54
55      int main() {
56          int choice,item;
57          for(;;)
58          {
59              printf("\n1:insert\n2:delete_largest\n3:display\n4:exit\n");
60              printf("Enter the choice :");
61              scanf("%d",&choice);
62              switch(choice)
63              {
64                  case 1:printf("Enter the item to be inserted :");
65                  scanf("%d",&item);
66                  insert(item);
67                  break;
68                  case 2:item=removeData();
69                  if(item==-1)
70                  printf("Queue is empty\n");
71                  else
72                  printf("item deleted=%d\n",item);
73                  break;
74                  case 3:display();
75                  break;
76                  default:exit (0);
77
78              }
79
80          }
81
82      }
```

PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL                                                    1: Code          ∨    +    ▯

```
1:insert
2:delete_largest
3:display
4:exit
Enter the choice :1
Enter the item to be inserted :10

1:insert
2:delete_largest
3:display
4:exit
Enter the choice :1
Enter the item to be inserted :2

1:insert
2:delete_largest
3:display
4:exit
Enter the choice :1
Enter the item to be inserted :5

1:insert
2:delete_largest
3:display
4:exit
Enter the choice :3
Contents of queue: 10 5 2

1:insert
2:delete_largest
3:display
4:exit
Enter the choice :2
item deleted=2

1:insert
2:delete_largest
3:display
4:exit
Enter the choice :
```