

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #define SIZE 3
4
5 int PQ[SIE];
6 int count = 0;
7 int flag = 0;
8
9 void insert_rear(int pr){
10     int i = 0;
11     if(count==SIZE)
12     {
13         printf("Queue Overflow\n");
14         return;
15     }
16     if(count == 0)
17     {
18         PQ[count++] = pr;
19     }
20     else{
21         for(i = count - 1; i >= 0; i-- )
22         {
23             if(pr>PQ[i]){
24                 PQ[i+1] = PQ[i];
25             }else
26             {
27                 break;
28             }
29         }
30         PQ[i+1] = pr;
31         count++;
32     }
33 }
34
35
36 int Remove_Big()
37 {
38     return PQ[flag++];
39 }
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38     return PQ[flag++];
39 }
40 void display()
41 {
42     int i;
43     if (count==0)
44     {
45         printf("Queue is Empty\n");
46         return;
47     }
48     printf("Contents of Queue: \n");
49     for(i=flag;i<count;i++)
50     {
51         printf("%d\n",PQ[i]);
52     }
53 }
54
55 int main() {
56     int choice,item;
57     for(;;)
58     {
59         printf("\n1:Insert_Rear\n2:Remove_Big\n3:Display\n4:Exit\n");
60         printf("Enter the choice : \n");
61         scanf("%d",&choice);
62         switch(choice)
63         {
64             case 1:printf("Enter the Item to be Inserted : \n");
65                     scanf("%d",&item);
66                     insert_rear(item);
67                     break;
68             case 2:item=Remove_Big();
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();

```

```

48     printf("Contents of Queue: \n");
49     for(i=flag;i<count;i++)
50     {
51         printf("%d\n", PQ[i]);
52     }
53 }
54
55 int main() {
56     int choice,item;
57     for(;;)
58     {
59         printf("\n1:Insert_Rear\n2:Remove_Big\n3:Display\n4:Exit\n");
60         printf("Enter the Choice : \n");
61         scanf("%d",&choice);
62         switch(choice)
63         {
64             case 1:printf("Enter the Item to be Inserted : \n");
65                     scanf("%d",&item);
66                     insert_rear(item);
67                     break;
68             case 2:item=Remove_Big();
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
83
84

```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
1
Enter the Item to be Inserted :
5
```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
1
Enter the Item to be Inserted :
10
```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
1
Enter the Item to be Inserted :
15
```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
3
Contents of Queue:
15
10
5
```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
2
Item Deleted=15
```

```
1:Insert_Rear
2:Remove_Big
3:Display
4:Exit
Enter the choice :
```

Enter the choice :

2

Item Deleted=10

1:Insert_Rear

2:Remove_Big

3:Display

4:Exit

Enter the choice :

2

Item Deleted=5

1:Insert_Rear

2:Remove_Big

3:Display

4:Exit

Enter the choice :

2

Item Deleted=0

1:Insert_Rear

2:Remove_Big

3:Display

4:Exit

Enter the choice :

2

Queue is Empty

1:Insert_Rear

2:Remove_Big

3:Display

4:Exit

Enter the choice :

4

(program exited with code: 0)

Press any key to continue . . .