

C mulpri.c x

C mulpri.c > pqdelete()

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  #define N 5
4  int queue[3][N];
5  int front[3]={0,0,0};
6  int rear[3]={-1,-1,-1};
7  int item,pr;
8
9  int pqinsert(int pr)
10 {
11     if(rear[pr]==N-1)
12         printf("\n Queue overflow\n");
13     else
14     {
15         printf("\n enter the item\n");
16         scanf("%d",&item);
17         rear[pr]++;
18         queue[pr][rear[pr]]=item;
19     }
20 }
21 int pqdelete()
22 {
23     int i;
24     for(i=0;i<3;i++)
25     {
26         if(rear[i]==front[i]-1)
27             printf("\nqueue empty\n");
28         else
29         {
30             printf("deleted item is %d of queue %d\n",queue[i][front[i]],i+1);
31             front[i]++;
32         }
33     }
34 }
35 int display()
36 {
37     int i,j;
```

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```
34 }
35 int display()
36 {
37     int i,j;
38     for(i=0;i<3;i++)
39     {
40         if(rear[i]==front[i]-1)
41             printf("\nqueue %d is empty\n",i+1);
42         else
43         {
44             printf("\nQUEUE %d:",i+1);
45             for(j=front[i];j<=rear[i];j++)
46                 printf("%d\t",queue[i][j]);
47         }
48     }
49 }
50 }
51 int main()
52 {
53     int ch;
54     while(1)
55     {
56         printf("\n1:PQinsert\n");
57         printf("\n2:PQdelete\n");
58         printf("\n3:PQdisplay\n");
59         printf("\n4:Exit\n");
60         printf("\nenter the choice\n");
61         scanf("%d",&ch);
62         switch(ch)
63         {
64             case 1:printf("\nenter the priority number\n");
65                     scanf("%d",&pr);
66                     if(pr>0 && pr<4)
67                         pqinsert(pr-1);
68                     else
69                         printf("\nonly 3 priority exists 1 2 3\n");
70                     break;
71             case 2: pqdelete();
```

```

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47     }
48 }
49
50 }
51 int main()
52 {
53     int ch;
54     while(1)
55     {
56         printf("\n1:PQinsert\n");
57         printf("\n2:PQdelete\n");
58         printf("\n3:PQdisplay\n");
59         printf("\n4:Exit\n");
60         printf("\nenter the choice\n");
61         scanf("%d",&ch);
62         switch(ch)
63         {
64             case 1:printf("\nenter the priority number\n");
65                     scanf("%d",&pr);
66                     if(pr>0 && pr<4)
67                         pqinsert(pr-1);
68                     else
69                         printf("\nonly 3 priority exists 1 2 3\n");
70                     break;
71             case 2: pqdelete();
72                     break;
73             case 3: display();
74                     break;
75             case 4:exit(0);
76         }
77     }
78 }

```

mulpri.c

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mulpri.c > pqdelete()

47 | }

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

1: PQinsert
2: PQdelete
3: PQdisplay
4: Exit
enter the choice
1
enter the priority number
1
enter the item
10
1: PQinsert
2: PQdelete
3: PQdisplay
4: Exit
enter the choice
1
enter the priority number
1
enter the item
20
1: PQinsert
2: PQdelete
3: PQdisplay

mulpri.c

mulpri.c > pqdelete()

47

}

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

1: PQinsert
2: PQdelete
3: PQdisplay
4: Exit
enter the choice
1
enter the priority number
2
enter the item
30
1: PQinsert
2: PQdelete
3: PQdisplay
4: Exit
enter the choice
1
enter the priority number
3
enter the item
50
1: PQinsert
2: PQdelete
3: PQdisplay

mulpri.c

×

mulpri.c

>

ppqdelete()

47

}

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

1: PQinsert

2: PQdelete

3: PQdisplay

4: Exit

enter the choice

3

QUEUE 1:10 20

QUEUE 2:30

QUEUE 3:50

1: PQinsert

2: PQdelete

3: PQdisplay

4: Exit

enter the choice

2

deleted item is 10 of queue 1

deleted item is 30 of queue 2

deleted item is 50 of queue 3

1: PQinsert

2: PQdelete

3: PQdisplay

4: Exit

enter the choice

3

QUEUE 1:10 20

```
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47 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: Code

```
1:PQinsert
2:PQdelete
3:PQdisplay
4:Exit

enter the choice
2
deleted item is 10 of queue 1
deleted item is 30 of queue 2
deleted item is 50 of queue 3
```

```
1:PQinsert
2:PQdelete
3:PQdisplay
4:Exit

enter the choice
3
```

```
QUEUE 1:20
queue 2 is empty
queue 3 is empty
```

```
1:PQinsert
2:PQdelete
3:PQdisplay
4:Exit

enter the choice
```

Multiple priority queue

```
#include <stdio.h>
```

```
#include <conio.h>
```

```
#define N 5
```

```
int queue[3][N];
```

```
int front[3] = {0, 0, 0};
```

```
int rear[3] = {-1, -1, -1};
```

```
int item, pr;
```

```
int pqrinsert (int pr)
```

```
{ if (rear[pr] == N-1)
```

```
printf ("Queue overflow\n");
```

```
else
```

```
{ printf ("enter the item\n");
```

```
scanf ("%d", &item);
```

```
rear[pr]++;
```

```
queue[pr][rear[pr]] = item;
```

```
}
```

```
}
```

```
int pqrdelete()
```

```
{ int i;
```

```
for (i = 0; i < 3; i++)
```

```
{ if (rear[i] == front[i]-1)
```

```
printf ("queue is empty");
```

```
else
```

```
printf ("deleted item is %d of queue %d\n", queue[pr][front[i]], i+1);
```

```
front[i]++;
```

```
}
```

```
}
```

```
}
```



```
int display()
```

```
{ int i, j;
```

```
for (i=0; i<3; i++)
```

```
{ if (rear[i] == front[i]-1)
```

```
printf("In queue %d is empty\n", i+1);
```

```
else
```

```
{ printf("In queue %d:", i+1);
```

```
for (j=front[i]; j<=rear[i]; j++)
```

```
printf("%d ", queue[i][j]);
```

```
}
```

```
}
```

```
int main()
```

```
{ int ch;
```

```
while
```

```
printf("1. pq insert\n2. pq delete\n3. pq display\n4. Exit\n");
```

```
printf("enter the choice\n");
```

```
scanf("%d", &ch);
```

```
switch(ch)
```

```
{ case 1: printf("enter the priority number\n");
```

```
scanf("%d", &p1);
```

```
if (p1>0 && p1<4)
```

```
pq insert(p1-1);
```

```
else
```

```
printf("only 3 queue exist\n");
```

```
break;
```

```
case 2: pq delete();
```

```
break;
```

```
case 3: display();
```

```
break;
```

```
case 4: exit(0);
```

```
}
```

```
}
```

```
}
```