```c
#include<stdio.h>
#include<conio.h>
#define N 3
int queue[3][N];
int front[3]={0,0,0};
int rear[3]={-1,-1,-1};
int item,pr;
int main()
{
int ch;
while(1)
{
printf("PRIORITY QUEUE\n");
printf("*****************\n");
printf("\n\t1:PQInsert\n");
printf("\n\t2:PQDelete\n");
printf("\n\t3:PQDisplay\n");
printf("\n\t4:Exit\n");
printf("\nEnter the Choice : \n");
scanf("%d",&ch);
switch(ch)
{
 case 1:printf("\nEnter the Priority Number\n");
        scanf("%d",&pr);
        if(pr>0 && pr<4)
        pqinsert(pr-1);
        else
        printf("Only 3 priority exists 1 2 3\n");
        break;
case 2:pqdelete();
       break;
case 3:display();
       break;
case 4:exit(0);
}
}
return 0;
}
```

```
return 0;
}
int pqinsert(int pr)
{
 if(rear[pr]==N-1)
 printf("\n Queue overflow\n");
 else
 {
 printf("\nenter the item\n");
 scanf("%d",&item);
 rear[pr]++;
 queue[pr][rear[pr]]=item;
 }
 return;
}
int pqdelete()
{
int i;
for(i=0;i<3;i++)
{
  if(rear[i]==front[i]-1)
  printf("queue empty\n");
  else
  {
  printf("deleted item is %d of queue %d\n",queue[i][front[i]],i+1);
  front[i]++;
  return;
  }
 }
}
int display()
{
int i,j;
for(i=0;i<3;i++)
{
if(rear[i]==front[i]-1)
  printf("Queue empty %d\n",i+1);
else
```

```
 scanf("%d",&item);
 rear[pr]++;
 queue[pr][rear[pr]]=item;
 }
 return;
}
int pqdelete()
{
int i;
for(i=0;i<3;i++)
{
  if(rear[i]==front[i]-1)
  printf("queue empty\n");
  else
  {
  printf("deleted item is %d of queue %d\n",queue[i][front[i]],i+1);
  front[i]++;
  return;
  }
 }
}
int display()
{
int i,j;
for(i=0;i<3;i++)
{
if(rear[i]==front[i]-1)
  printf("Queue empty %d\n",i+1);
else
  {
  printf("\nQUEUE %d:",i+1);
  for(j=front[i];j<=rear[i];j++)
    printf("%d\t",queue[i][j]);
  }
}
  return;
}
```

C:\WINDOWS\SYSTEM32\cmd.exe

```
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
1

Enter the Priority Number
2

enter the item
5
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
1

Enter the Priority Number
1

enter the item
10
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
1
```

C:\WINDOWS\SYSTEM32\cmd.exe

```
Enter the Choice :
1

Enter the Priority Number
3

enter the item
15
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
3

QUEUE 1:10
QUEUE 2:5
QUEUE 3:15      PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
2
deleted item is 10 of queue 1
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
2
```

C:\WINDOWS\SYSTEM32\cmd.exe

```
deleted item is 5 of queue 2
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
2
queue empty
queue empty
deleted item is 15 of queue 3
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
3
Queue empty 1
Queue empty 2
Queue empty 3
PRIORITY QUEUE
****************

        1:PQInsert

        2:PQDelete

        3:PQDisplay

        4:Exit

Enter the Choice :
4


------------------
(program exited with code: 0)

Press any key to continue . . .
```