Multiple Priority queue

```
# include <stdio.h>
# include <stdlib.h>
# define N 3
int queue[3][N];
int front[3]={0,0,0};
int rear[3]={-1,-1,-1};
int item, pr;
void main()
{
int ch;
while(1)
{
printf("Priority Queue \n");
printf("***** \n");
printf("\n\t1: PQ insert \n");
printf("\n\t2: PQ delete \n");
printf("\n\t3: PQ display \n");
printf("\n\t4: Exit \n");
printf("\n enter the choice \n");
scanf("%d", &ch);
Switch(ch)
{
Case 1: Printf("\n enter 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);
}
}
}
Pqinsert (int pr)
{
 if (rear[Pr] == N-1)
printf ("\n Queue over flow \n");
 else
{
 Printf ("\n enter the item \n");
 Scanf ("%d", &item);
rear[Pr]++;
queue[Pr][rear[Pr]] = item;
}
```

```
    return;
  }
  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;
    }
   }
  }
  display()
  {
   int i, j;
  for(i=0; i<3; i++)
  {
   if(rear[i]==front[i]-1)
```

```
printf("queue is empty %d\n", i+2);
else
{printf("\n queue.%d:", i+1);
  for(j = front[i]; j<=rear[i]; j++)
    printf("%dt", queue[i][j]);
  }
}
return;
}.
```