# .Priority Queue

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

#define N 3

void pqinsert(int);

void pqdelete();

void display();

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: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("\nonly 3 priority exists 1 2 3\n");

break;

case 2:pqdelete();

break;

case 3:display();

break;

case 4:exit(0);

}

}

}

void 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;

}

}

void pqdelete()

{

int i;

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

{

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

printf("\nqueue empty\n");

else

{

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

front[i]++;

return;

}

}

}

void display()

{

int i,j;

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

{

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

printf("\nqueue 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;

}

Output:





