#include<stdio.h>

#define MAX 50

int cqueue\_arr[MAX];

int front = -1;

int rear = -1;

void insert(int item)

{

if((front == 0 && rear == MAX-1) || (front == rear+1))

{

printf("\nQueue Overflow ");

return;

}

if(front == -1)

{

front = 0;

rear = 0;

}

else

{

if(rear == MAX-1)

rear = 0;

else

rear = rear+1;

}

cqueue\_arr[rear] = item ;

}

void deletion()

{

if(front == -1)

{

printf("\nQueue Underflow");

return ;

}

printf("\nElement deleted from queue is : %d\t",cqueue\_arr[front]);

if(front == rear)

{

front = -1;

rear=-1;

}

else

{

if(front == MAX-1)

front = 0;

else

front = front+1;

}

}

void display()

{

int front\_pos = front,rear\_pos = rear;

if(front == -1)

{

printf("Queue is empty");

return;

}

printf("Queue elements :");

//if( front\_pos <= rear\_pos )

while(front\_pos <= rear\_pos)

{

printf("%d ",cqueue\_arr[front\_pos]);

front\_pos++;

}

// else

// {

// while(front\_pos <= MAX-1)

// {

// printf("%d ",cqueue\_arr[front\_pos]);

// front\_pos++;

// }

// front\_pos = 0;

// while(front\_pos <= rear\_pos)

// {

// printf("%d ",cqueue\_arr[front\_pos]);

// front\_pos++;

// }

//}

printf("\n");

}

int main()

{

int choice,item;

do

{

printf("\n1.Insertion \n2.Deletion \n3.Display \n4.Quit \nEnter your choice : ");

scanf("%d",&choice);

switch(choice)

{

case 1 :

printf("\nInput the element for insertion in queue : ");

scanf("%d", &item);

insert(item);

break;

case 2 :

deletion();

break;

case 3:

display();

break;

case 4:

break;

default:

printf("\nWrong choice");

}

}while(choice!=4);

return 0;

}

