#include <stdio.h>

#define Q\_SIZE 20

struct queue

{

int a[Q\_SIZE];

int front,rear;

}q;

void insert()

{

int x;

if(q.rear==Q\_SIZE-1)

printf("\n\nQueue full.insertion not possible");

else

{

printf("\nEnter data to insert :");

scanf("%d",&x);

q.rear++;

q.a[q.rear]=x;

}

}

void deleteq()

{

if (q.front==q.rear)

printf("\n\nQueue is empty.Deletion not possible.");

else

{

++q.front;

printf("\n\nThe deleted element is %d",q.a[q.front]);

}

}

void show()

{

int i;

if (q.front==q.rear)

printf("\n\nQUEUE Empty");

else

{

printf("\n\nThe element is the queue:\n");

printf("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n");

printf("\tFront--->");

for(i=q.front+1;i<=q.rear;i++)

printf("%d",q.a[i]);

printf("<---Rear\n");

}

}

void main()

{

int n,i,ch;

q.front=q.rear=-1;

printf("\nNo. of elements initially in the queue: ");

scanf("%d",&n);

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

{

q.rear++;

printf("\n\tEnter the element:");

scanf("%d",&q.a[i]);

}

show();

while(1)

{

printf("\n\n\t\tSelect your choice:");

printf("\n\t1->Insertion");

printf("\n\t2->Deletion");

printf("\n\t3->Exit");

printf("\n\nEnter your choice:");

scanf("%d",&ch);

switch(ch)

{

case 1 : insert();

show();

break;

case 2 : deleteq();

show();

break;

case 3 : exit(0);

}

}

}