#include<stdio.h>

int queue[100],n=0,choice,front,rear,element,i;

void add();

void del();

void display();

int main()

{

front=-1; rear=-1;

printf("\n Enter the size of QUEUE[MAX=100]:");

while(!(n<=100 && n>0))scanf("%d",&n);

printf("\nQUEUE OPERATIONS USING ARRAY");

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

printf("\n 1.INSERT\n 2.DELETE\n 3.DISPLAY\n 4.EXIT");

do

{

printf("\nEnter the Choice:");

scanf("%d",&choice);

switch(choice)

{

case 1:

{

add();

break;

}

case 2:

{

del();

break;

}

case 3:

{

display();

break;

}

case 4:

{

printf("\nEXIT POINT ");

break;

}

default:

{

printf ("\nPlease Enter a Valid Choice(1/2/3/4)");

}

}

}

while(choice!=4);

return 0;

}

void add()

{

if(rear==n-1 )

{

printf("\nQueue is over flow");

}

else

{

if(front==-1)front=0;

printf(" Enter a value to be added:");

scanf("%d",&element);

rear++;

queue[rear]=element;

}

}

void del()

{

if(front==-1)

{

printf("\nQueue is empty");

}

else {

if(front>rear){

front=rear=-1;

printf("\nQueue is empty");

}

else

{

printf("\nThe deleted elements is %d",queue[front]);

front++;

}

}

}

void display()

{

if(front==-1)

{

printf("\n The QUEUE is empty");

}

else

{

printf("\n The elements in QUEUE \n");

for(i=front; i<=rear; i++)

printf("\n%d",queue[i]);

printf("\n Press Next Choice");

}

}