#include<stdio.h>

int maxc=5;

int max=10;

int frontc=-1;

int rearc=-1;

int front=-1;

int rear=-1;

int insertion(int value,int arr[])

{

printf("linear queue insertion");

if(rear>max)

{

printf("queue is full\n");

return 1;

}

if (front==-1)

{

front=0;

}

arr[++rear]=value;

printf("circuilar queue insertion");

if ((rearc+1)%max==front)

{

printf("queue is full");

return 1;

}

if (frontc==-1)

{

frontc=0;

}

rearc=(rear+1)%max;

arr[rearc]=value;

}

int deletion(int arr[])

{

printf("linear queue deletion");

if(front>rear||front<0)

{

printf("empty queue deletion operation cannot be performed\n");

return 1;

}

else

{

printf("the deleted element is : %d",arr[front]);

printf("\n");

front=front+1;

}

printf("circuilar queue deletion");

if(frontc>0)

{

printf("empty queue ");

return 1;

}

else

{

printf("the deleted element is :%d",arr[frontc]);

printf("\n");

frontc=(frontc+1)%10;

}

}

int display(int arr[])

{

printf("linear queue display");

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

{

printf("%d",arr[i]);

printf(" ");

}

printf("circulair queue display");

for(int i=frontc;i<rearc;i++)

{

printf("%d",arr[

}

int main()

{

printf("linear queue\n");

int arrc[maxc];

int arr[max];

char a ='y';

while(a=='y')

{

int option;

printf("\n 1.ENQUEUE(insertion)\n 2.DEQUEUE(deletion) \n 3.DISPLAY QUEUE\n");

printf("enter option:");

scanf("%d",&option);

switch(option)

{

case 1:

{

int x;

printf("enter element to be inserted (enqued):");

scanf("%d",&x);

insertion(x,arr);

break;

}

case 2:

{

deletion(arr);

break;

}

case 3:

{

display(arr);

break;

}

default:

printf("invalid option");

break;

}

char b;

printf("do you wanna continue (y/n):");

scanf(" %c",&b);

if (b=='n'||b=='N')

a=b;

}

} `