/\* LAB ASSIGNMENT 13

Pizza parlor accepting maximum M orders. Orders are served in first come first served basis.

Order once placed cannot be cancelled. Write C++ program to simulate the system using circular queue

using array \*/

#include<iostream>

using namespace std;

class pizza

{

int order[10];

int max;

int f,r;

public :

pizza()

{

f=-1,r=-1;

cout<<"\nEnter Maximum order : ";

cin>>max;

}

int full()

{

if(((f==0)&&(r==(max-1)))||(f==(r+1)%max))

return 1;

else

return 0;

}

int qempty()

{

if(f==-1)

return 1;

else

return 0;

}

void add(int a)

{

if(full())

{

cout<<"\nOrder is Full!!!";

}

else

{

if(f==-1)

{

f=r=0;

}

else

{

r=(r+1)%max;

}

order[r]=a;

}

}

void remove()

{

int i;

i=order[f];

if(f==r)

{

f=r=-1;

}

else

{

f=(f+1)%max;

}

cout<<"\n Order deleted : "<<i;

}

void display()

{

int temp;

temp=f;

if(qempty())

{

cout<<"\nNo orders currently\n";

}

else

{

cout<<"\nThe oders are : \n\n";

while(temp!=r)

{

cout<<" "<<order[temp];

temp=(temp+1)%max;

}

cout<<" "<<order[temp];

}

}

};

int main()

{

int ch;

pizza p;

do

{

cout<<"\n1. Order \n2. Remove order \n3.Display orders \n4. Exit"<<endl;

cin>>ch;

switch(ch)

{

case 1:int o;

cout<<"\nEnter Order number : ";

cin>>o;

p.add(o);

break;

case 2:p.remove();

break;

case 3:p.display();

break;

}

}

while(ch!=4);

return 0;

}