#include <iostream>

const int MAX=5;

using namespace std;

class PizzaParlour

{

int front,rear;

int orders[MAX];

public:

PizzaParlour()

{

front=rear=-1;

}

bool addOrder(int data);

void serveOrder();

void display();

};

bool PizzaParlour::addOrder(int id)

{

if(rear==-1)

{

front=rear=0;

orders[rear]=id;

return true;

}

else

{

rear=(rear+1)%MAX;

if(rear==front)

{

cout<<"\nCafe Is Full.Please Wait For Some Time"<<endl;

return false;

}

else

{

orders[rear]=id;

return true;

}

}

}

void PizzaParlour::serveOrder()

{

if(front==-1)

{

cout<<"\nNo Orders In Cafe"<<endl;

return;

}

else

{

cout<<"\nOrder No."<<orders[front]<<" Is Processed\n";

if(front==rear)

{

front=rear=-1;

}

else

{

front=(front+1)%MAX;

}

}

}

void PizzaParlour::display()

{

int i=0;

if(front==-1)

{

cout<<"\nCafe Is Empty.No Orders"<<endl;

return;

}

else{

cout<<"Order Id Is:"<<endl;

for(i=front;i<=rear;i=((i+1)%MAX))

{

cout<<orders[i]<<" "<<endl;

}

}

}

int main()

{

int ch,id=0;

PizzaParlour p;

do{

cout<<"\n\*\*\*\*\*\*\*\*MENU\*\*\*\*\*\*\*\*\*\*\*\*";

cout<<"\n1.Accept Order"<<endl;

cout<<"2.Serve Order"<<endl;

cout<<"3.Display Order"<<endl;

cout<<"4.Exit"<<endl;

cout<<"Enter Your Choice:"<<endl;

cin>>ch;

switch(ch)

{

case 1:

id++;

if(p.addOrder(id))

{

cout<<"Thanks For Your Order. Your Order Id Is:"<<id;

}

else

id--;

break;

case 2:p.serveOrder();

break;

case 3:p.display();

break;

}

}while(ch!=4);

cout<<"Thank You! Keep Visiting"<<endl;

}