# #13

**SOURCE CODE:**

#include<iostream> #include<bits/stdc++.h> using namespace std; const short M = 5;

class pizza{

int front, rear, order[M]; public: pizza(){

front = -1;

rear = -1;

}

public: bool isFull();

bool isEmpty(); void addOrder(); void serve(); void display();

};

bool pizza::isFull(){

if (front == (rear + 1)%M){return true;} else{return false;}

}

bool pizza::isEmpty(){

return (rear == -1)? true : false;

}

void pizza::addOrder(){

if (!isFull()){

cout << "Enter Order Number : " ; if (front == -1 && rear == -1){

front = 0;

rear = 0;

cin >> order[rear];

}

else{

}

char c;

rear = (rear + 1)%M; cin >> order[rear];

cout << "Do you want to add another order? : "; cin >> c;

if (c == 'y' || c == 'Y'){

addOrder();

}

else{

}

cout << "Queue Overflow" << endl; return;

}

}

void pizza::serve(){

if (!isEmpty()){

if (front == rear){

cout << "Order been served is : " << order[front] << endl; front = -1;

rear = -1;

}

else{

}

else{

}

cout << "Order been served is : " << order[front] << endl; front = (front + 1)%M;

cout << "No orders currently "<< endl; return;

}

}

void pizza::display(){

if (!isEmpty()){

for(int i = front; i != rear ; i = (i+1)%M){ cout << order[i] << " ";

}

else{

}

}

}

cout << order[rear] << endl;

cout << "There are no Orders !!" << endl; return;

int main(){

pizza p;

bool flag = true; while(flag){

cout << "\nChoices : " << endl;

cout << "1. Place an order\n2. Display an Order\n3. Serve the order\n4. Exit" <<

endl;

cout << "Enter your choice : "; int ch;

cin >> ch; cout << endl; switch(ch){ case 1:

case 2:

p.addOrder(); break;

p.display(); break;

case 3:

case 4:

p.serve(); break;

flag = false;

cout << "Program Ended !!" << endl; break;

default:

cout << "Invalid Choice " << endl; break;

}

}

}