**INPUT CODE:**

#include <iostream>

#define MAX 5

using namespace std;

class cqueuepizza {

int q[MAX], rear, front;

public:

cqueuepizza();

void insert(int);

int delete1();

void display();

};

cqueuepizza::cqueuepizza() {

front = rear = -1;

}

void cqueuepizza::insert(int value) {

if (((rear == MAX - 1) && (front == -1)) || (rear - front) == -1) {

cout << "\nQueue is Full";

} else {

if (rear == MAX - 1)

rear = -1;

rear++;

q[rear] = value;

cout << "Order added at " << rear << endl;

}

}

int cqueuepizza::delete1() {

int value;

if (rear == front) {

cout << endl << "Queue is Empty";

return -999;

} else {

if ((front == MAX - 1) && rear < front)

front = -1;

front++;

value = q[front];

cout << "Order removed from " << front << endl;

return value;

}

}

void cqueuepizza::display() {

int i;

cout << endl;

if (front <= rear) {

i = front + 1;

while (i <= rear)

cout << q[i++] << " ";

} else {

i = front + 1;

while (i <= MAX - 1)

cout << q[i++] << " ";

i = 0;

while (i <= rear)

cout << q[i++] << " ";

}

}

int main() {

int choice, x, y;

char ans;

cqueuepizza q1;

do {

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

cout << "\n1. Place an order id ";

cout << "\n2. Remove an order id ";

cout << "\n3. Display the queue ";

cout << "\nEnter your choice: ";

cin >> choice;

switch (choice) {

case 1:

cout << "\nEnter the order id: ";

cin >> y;

q1.insert(y);

q1.display();

break;

case 2:

x = q1.delete1();

if (x != -999)

cout << "\nThe removed order is: " << x;

q1.display();

break;

case 3:

q1.display();

break;

default:

cout << "\nWrong choice!!";

break;

}

cout << "\nDo you want to continue (y/n)? ";

cin >> ans;

} while (ans == 'y');

return 0;

}

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**OUTPUT:**

\*\*\*\*\*MENU\*\*\*\*\*

1. Place an order id

2. Remove an order id

3. Display the queue

Enter your choice: 1

Enter the order id: 101

Order added at 0

101

Do you want to continue (y/n)? y

\*\*\*\*\*MENU\*\*\*\*\*

1. Place an order id

2. Remove an order id

3. Display the queue

Enter your choice: 1

Enter the order id: 102

Order added at 1

101 102

Do you want to continue (y/n)? y

\*\*\*\*\*MENU\*\*\*\*\*

1. Place an order id

2. Remove an order id

3. Display the queue

Enter your choice: 2

Order removed from 0

The removed order is: 101

102

Do you want to continue (y/n)? n