

```
#include<iostream>
#include<cstdlib>
using namespace std;
class pizza{
    int front,rear,q[5];
public:
    pizza(){
        front=-1;
        rear=-1;
    }
    int isfull(){
        if((front==0&&rear==4)||front==rear+1){
            return 1;
        }
        else{
            return 0;
        }
    }
    int isEmpty(){
        if(front==-1&&rear==-1){
            return 1;
        }
        else{
            return 0;
        }
    }
    void add(){
        if(isfull()==0){
            cout<<"\n Enter the Pizza ID: ";
            if(front=-1&&rear=-1){
                front=0;
                rear=0;
                cin>>q[rear];
            }
            else{
                rear=(rear+1)%5;
                cin>>q[rear];
            }
            char c;
            cout<<" Do you want to add another order?";
            cin>>c;
            if(c=='y' || c=='Y')
                add();
        }
        else{
            cout<<"\n Orders are full ";
        }
    }
    void serve(){
        if(isEmpty()==0){
            if(front==rear){
                cout<<"\n Order served is: "<<q[front];
                front=-1;
                rear=-1;
            }
            else{
                cout<<"\n Order served is: "<<q[front];
                front=(front+1)%5;
            }
        }
        else{
            cout<<"\n Orders are empty ";
        }
    }
    void display(){
        if(isEmpty()==0){
```

```

        for(int i=front;i<=rear;i=(i+1)%5)
            cout<<q[i]<<"<- ";
        cout<<q[rear];
    }
    else{
        cout<<"\n Orders are empty";
    }
}
void check(){
    int ch;
    cout<<"\n\n**** PIZZA PARLOUR **** \n\n";
    cout<<"\n 1. Add a Pizza \n 2. Display the Orders \n 3. Serve a pizza \n 4. Exit
\n Enter your choice: ";
    cin>>ch;
    switch(ch){
        case 1:
            add();
            break;
        case 2:
            display();
            break;
        case 3:
            serve();
            break;
        case 4:
            exit(0);
        default:
            cout<<"Invalid choice ";
            check();
    }
    char chl;
    cout<<"\n Do you want to continue?";
    cin>>chl;
    if(chl=='y' || chl=='Y')
        check();
}
};
int main(){
    pizza pl;
    pl.check();
    return 0;
}

```

/

```

*****

```

Output : -

```
ubuntu@ubuntu-OptiPlex-3090:~/Documents/dsl_practicals$ g++ practical12dsl.cpp
```

```
ubuntu@ubuntu-OptiPlex-3090:~/Documents/dsl_practicals$ ./a.out
```

```
**** PIZZA PARLOUR ****
```

1. Add a Pizza
2. Display the Orders
3. Serve a pizza
4. Exit

Enter your choice: 1

Enter the Pizza ID: 78

Do you want to add another order?y

Enter the Pizza ID: 43

Do you want to add another order?y

Enter the Pizza ID: 10  
Do you want to add another order?n

Do you want to **continue?**y

\*\*\*\* PIZZA PARLOUR \*\*\*\*

1. Add a Pizza  
2. Display the Orders  
3. Serve a pizza  
4. Exit  
Enter your choice: 2  
78<- 43<- 10<- 10  
Do you want to **continue?**y

\*\*\*\* PIZZA PARLOUR \*\*\*\*

1. Add a Pizza  
2. Display the Orders  
3. Serve a pizza  
4. Exit  
Enter your choice: 3  
  
Order served is: 78  
Do you want to **continue?**y

\*\*\*\* PIZZA PARLOUR \*\*\*\*

1. Add a Pizza  
2. Display the Orders  
3. Serve a pizza  
4. Exit  
Enter your choice: 3  
  
Order served is: 43  
Do you want to **continue?**y

\*\*\*\* PIZZA PARLOUR \*\*\*\*

1. Add a Pizza  
2. Display the Orders  
3. Serve a pizza  
4. Exit  
Enter your choice: 2  
10<- 10  
Do you want to **continue?**y

\*\*\*\* PIZZA PARLOUR \*\*\*\*

1. Add a Pizza  
2. Display the Orders  
3. Serve a pizza  
4. Exit  
Enter your choice: 4