University of Dhaka
Department of Computer Science and Engineering

CSE-3112:Software Engineering

Report Name :
Class Diagram & Sequence Diagram

Submitted To:
Dr. Sarkar Tanveer Ahmed Rumee
Associate Professor, Department of Computer Science and Engineering

Submitted by :
Amina Islam
Roll:36

Class Diagram

Code:

```
@startuml

' Abstract class Payment
abstract class Payment {
    amount
}

' Customer class
class Customer {
    name
    address
}

' Order class
class Order {
    date
    status
    calcTax()
    calcTotal()
    calcTotalWeight()
}

' OrderDetail class
class OrderDetail {
    quantity
    taxStatus
```

```
        calcSubTotal()
        calcWeight()
}

' Item class
class Item {
    shippingWeight
    description
    getPriceForQuantity()
    getWeight()
}

' Credit, Cash, Check subclasses
class Credit {
    number
    type
    expDate
    authorized
}
class Cash {
    cashTendered
}
class Check {
    name
    bankID
    authorized
}

' Relationships with navigability
Customer "1" -- "0..*" Order
Order "1" *-- "1..*" OrderDetail : line item
OrderDetail "0..*" --> "1" Item
```
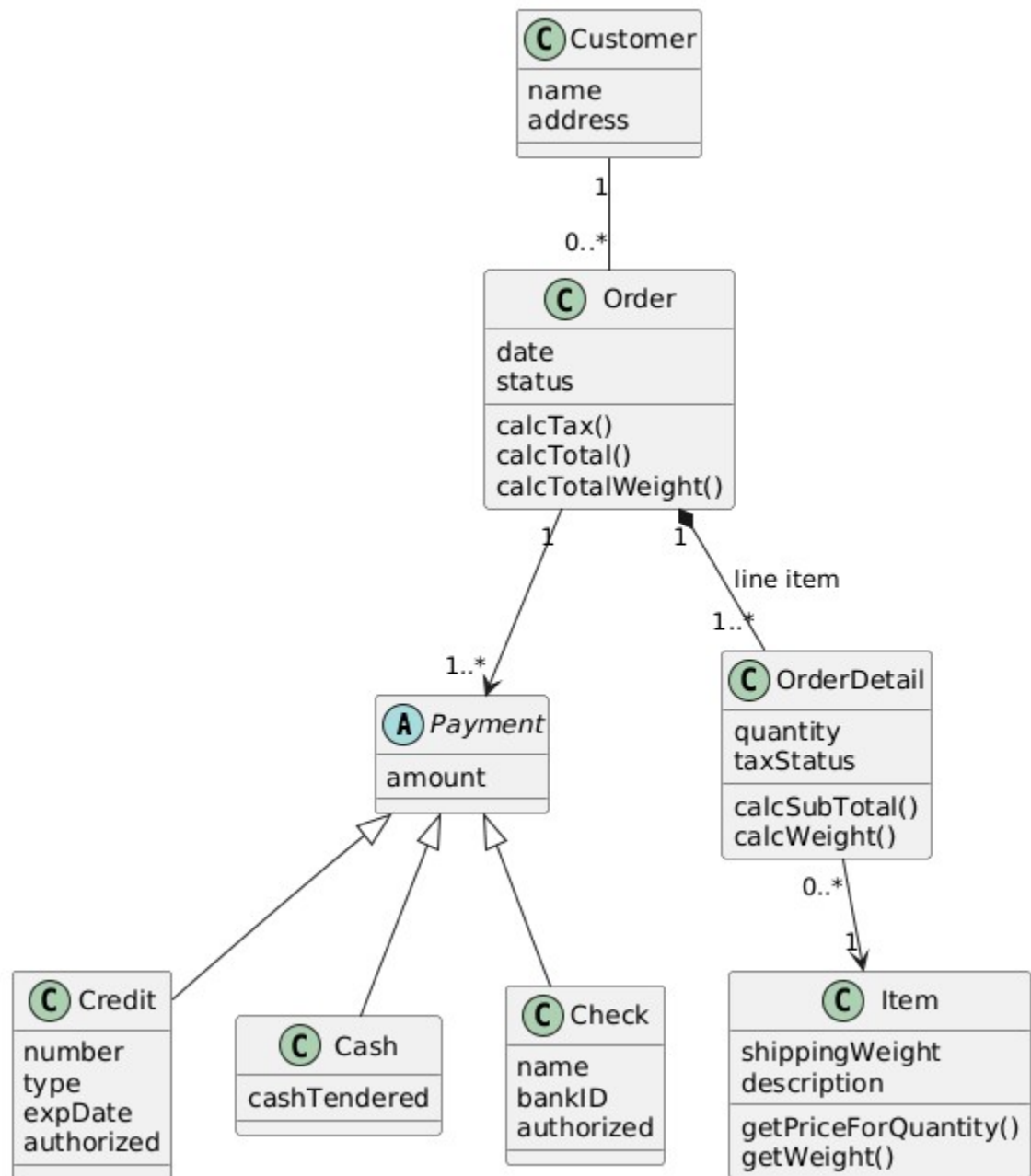
```
Order "1" --> "1..*" Payment
Payment <|-- Credit
Payment <|-- Cash
Payment <|-- Check

@enduml
```

Image :

Sequence Diagram

Code:

```
@startuml
participant "register : RegisterOffice" as register
participant "ar : AccountsReceivable" as ar
participant "drama : Class" as drama

activate register
register -> ar : getPastDueBalance(studentId)
activate ar
ar --> register : pastDueBalance
deactivate ar

register -> drama :[pastDueBalance = 0]
addStudent(studentId)
activate drama
drama --> register
deactivate drama
deactivate register

@enduml
```

Image: