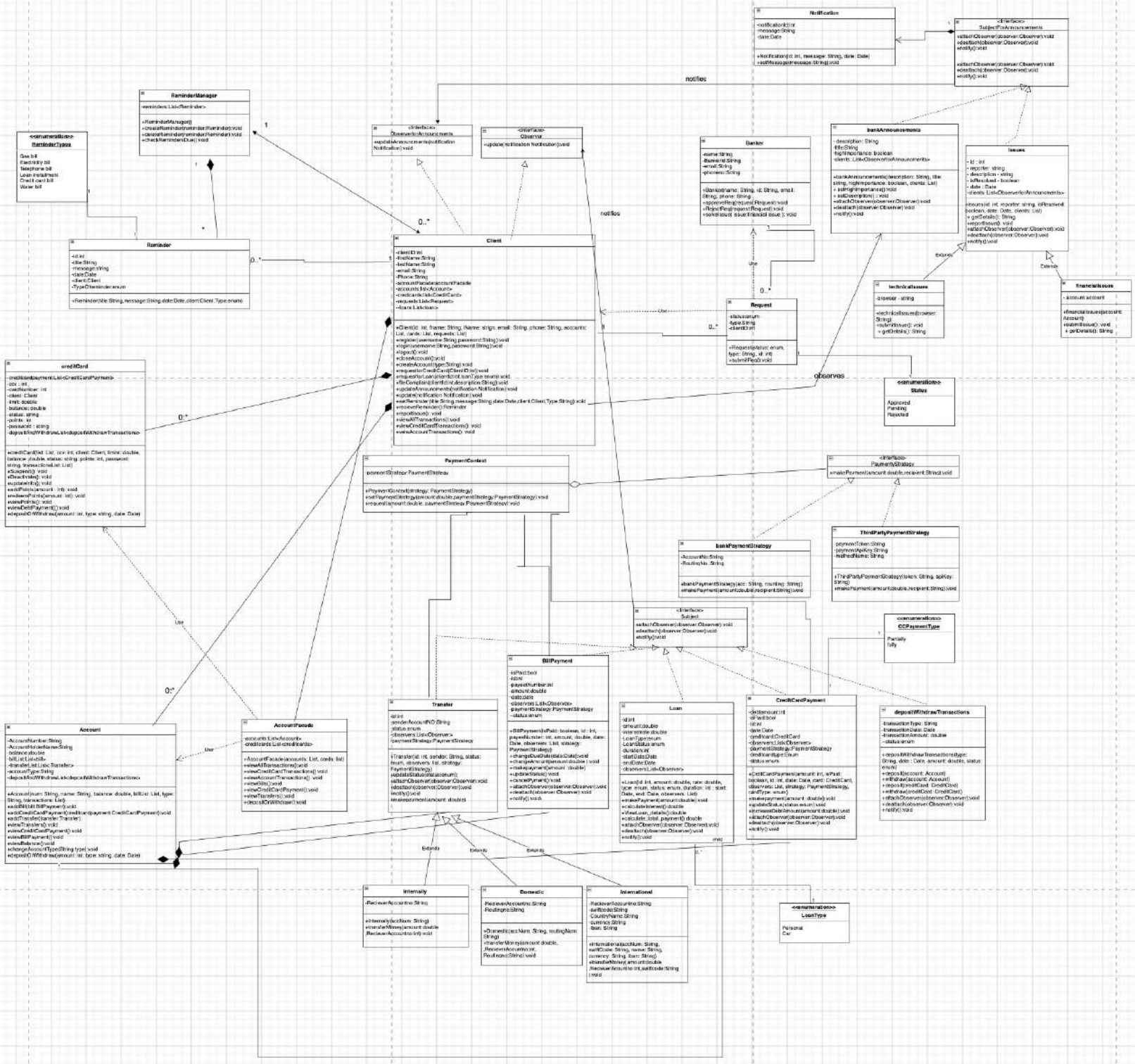
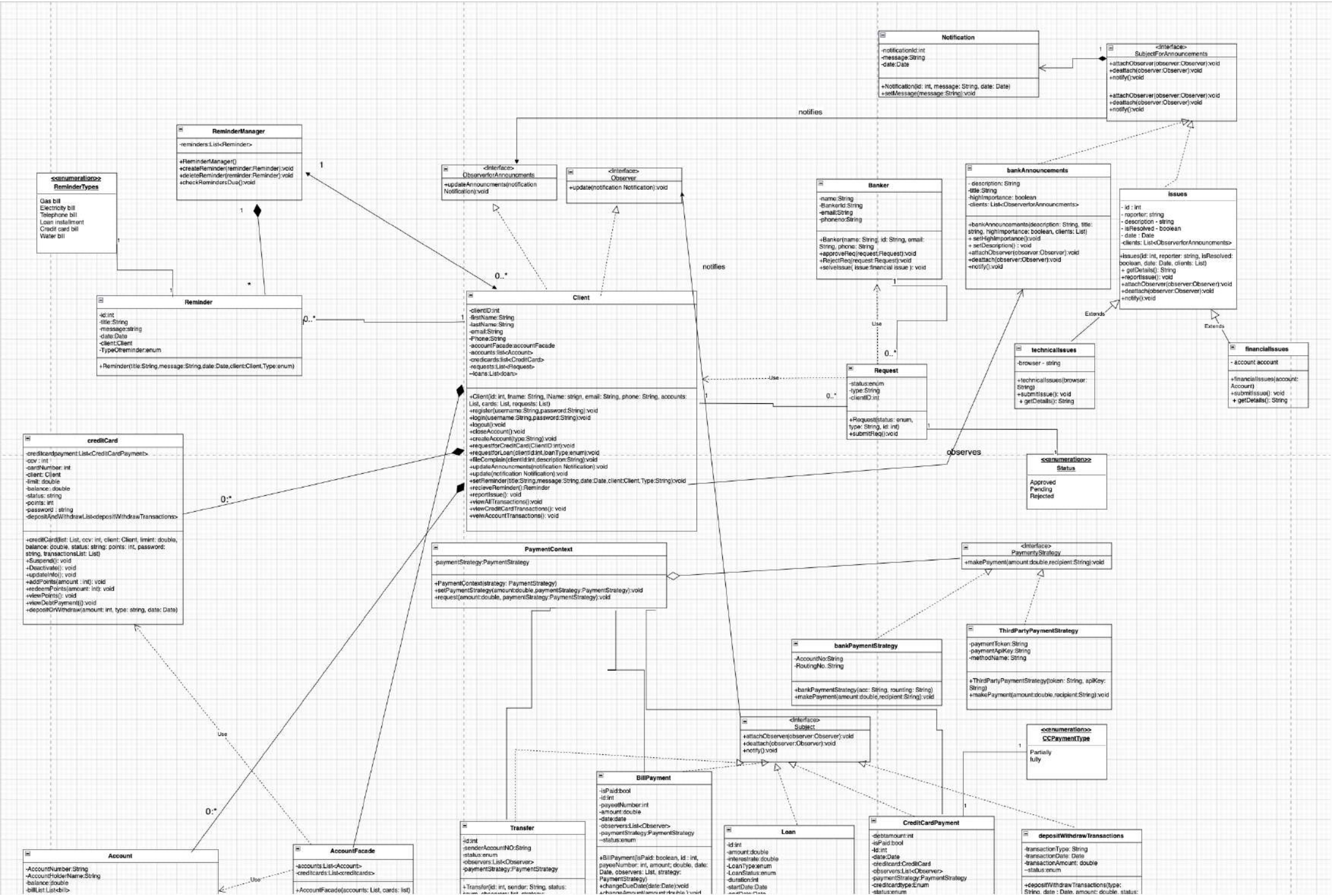
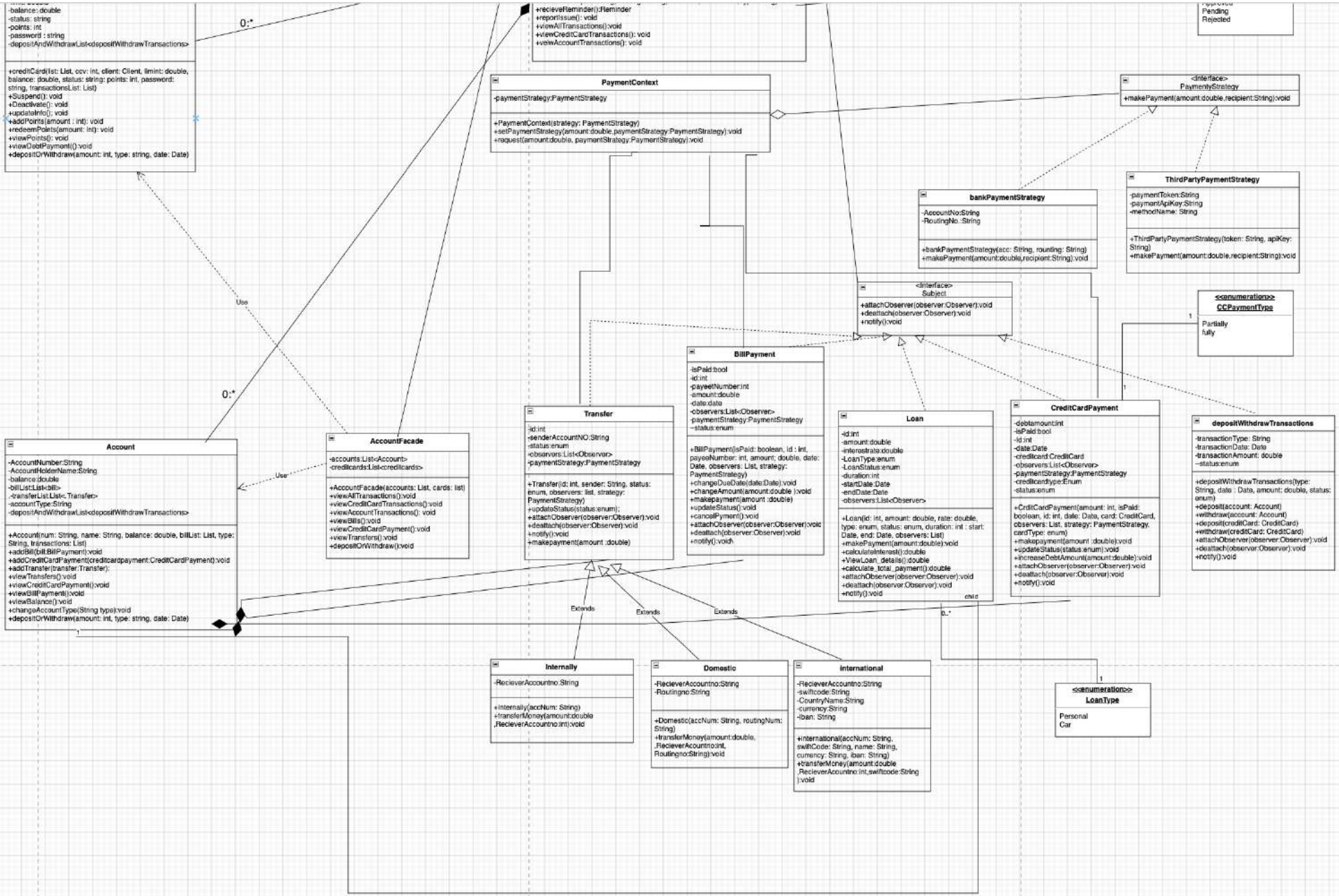

Notification
-notificationId:int
-message:String
-date:Date
+Notification(id: int, message: String, date: Date)
+setMessage(message:String):void
<interface>
SubjectForAnnouncements
+attach(Observer):void
+detach(Observer):void
+notify():void
notifies
RaminderManager
-reminders:List<Reminder>
+RaminderManager()
+createReminder(reminder):void
+deleteReminder(reminder):void
+checkRemindersDue():void
<interface>
ObserverforAnnouncements
+updateAnnouncements(notification Notification):void
<interface>
Observer
+update(notification Notification):void
Banker
-name:String
-Banker:id:String
-email:String
-phone:String
+Banker(name: String, id: String, email: String, phone: String ...)
+approveReq(request:Request):void
+RejectReq(request:Request):void
+solveIssue(issueIfaceIssue): void
bankAnnouncements
-description: String
-title:String
-highImportance: boolean
-clients: List<ObserverforAnnouncements>
+bankAnnouncements(description: String, title: string, highImportance: boolean, clients: List)
+ setHighImportance():void
+ setDescription( ): void
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
Issues
- id : int
- reporter: string
- description - string
- isResolved - boolean
- date : Date
- clients: List<ObserverforAnnouncements>
+issues(id: int, reporter: string, isResolved: boolean, date: Date, clients: List)
+ getDetails(): String
+reportIssue(): void
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
Extends
Extends
technicalIssues
-browser - string
+technicalIssues(browser: String)
+solveIssue(): void
+ getDetails(): String
financialIssue
- account:account
+financialIssue(account: Account)
+submitIssue(): void
+ getDetails(): String
<enumeration>
RemainderTypes
Gas bill
Electricity bill
Telephone bill
Loan installment
Credit card bill
Water bill
Reminder
+id:int
-title:String
-message:string
-dateDate
-Client:Client
-TypeOfReminder:enum
+Reminder(title:String, message:String, date:Date, client:Client, Type:enum)
Client
-clientID:int
-firstName:String
-lastName:String
-email:String
-Phone:String
-accountFacade:accountFacade
-accounts:List<Account>
-creditcards:List<CreditCard>
-requests:List<Request>
-loans:List<loan>
+Client(id: int, fname: String, lname: string, email: String, phone: String, accounts: List, cards: List, requests: List)
+register(username:String,password:String):void
+login(username:String,password:String):void
+logout():void
+closeAccount():void
+createAccount(type:String):void
+requestforCreditCard(ClientID:int):void
+requestforLoan(loanID:int,loanType:enum):void
+fileComplaint(clientID:int,description:String):void
+updateAnnouncements(notification:Notification):void
+update(notification: Notification):void
+setReminder(title:String,message:String,date:Date,client:Client,Type:String):void
+removeReminder():Reminder
+requestIssue():void
+viewAllTransactions():void
+viewCreditCardTransactions():void
+viewAccountTransactions():void
Use
Use
Use
Request
-status:enum
-type:String
-clientID:int
+Request(status: enum, type: String, id: int)
+submitReq():void
observes
<enumeration>
Status
Approved
Pending
Rejected
creditCard
-creditcardpayment:List<CreditCardPayment>
-cvv : int
-cardNumber: int
-client: Client
-limit: double
-balance: double
-status: string
-points: int
-password: string
-depositAndWithdrawList:depositWithdrawTransactions
+creditCard(list: List, cvv: int, client: Client, limit: double, balance: double, status: string, points: int, password: string, transactionsList: List)
+Suspend():void
+Deactivate():void
+updateLimit():void
+addPoints(amount : int):void
+redeemPoints(amount: int):void
+viewPoints():void
+viewDebtPayment():void
+depositOrWithdraw(amount: int, type: string, date: Date)
0..*
PaymentContext
-paymentStrategy:PaymentStrategy
+PaymentContext(strategy: PaymentStrategy)
+setPaymentStrategy(amount:double,paymentStrategy:PaymentStrategy):void
+request(amount:double, paymentStrategy:PaymentStrategy):void
<interface>
PaymentStrategy
+makePayment(amount:double,recipient:String):void
bankPaymentStrategy
-AccountNo:String
-RoutingNo. :String
+bankPaymentStrategy(acc: String, routing: String)
+makePayment(amount:double,recipient:String):void
ThirdPartyPaymentStrategy
-paymentToken:String
-paymentApiKey:String
-methodName: String
+ThirdPartyPaymentStrategy(token: String, apiKey: String)
+makePayment(amount:double,recipient:String):void
<interface>
Subject
+attach(Observer):void
+detach(Observer):void
+notify():void
<enumeration>
CCPaymentType
Partially
fully
BillPayment
-isPaid:bool
-id:int
-payeeNumber:int
-amount:double
-dateDate
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
-status:enum
+BillPayment(isPaid: boolean, id: int, payeeNumber: int, amount: double, date: Date, observers: List, strategy: PaymentStrategy)
+changeDueDate(date:Date):void
+changeAmount(amount:double):void
+makepayment(amount: double)
+updateStatus( ):void
+cancelPayment():void
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
Transfer
-id:int
-senderAccountNO:String
-status:enum
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
+Transfer(id: int, senderAc: String, status: enum, observers: list, strategy: PaymentStrategy)
+updateStatus(status:enum):void
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
+makepayment(amount:double)
Loan
-id:int
-amount:double
-interestrate:double
-LoanType:enum
-LoanStatus:enum
-duration:int
-startDate:Date
-endDate:Date
-observers:List<Observer>
+Loan(id: int, amount: double, rate: double, type: enum, status: enum, duration: int, start: Date, end: Date, observers: List)
+makePayment(amount:double):void
+calculateInterest():double
+ViewLoan_details():double
+calcDate_total_payment():double
+attachObserver(observer:Observed):void
+detach(observer:Observer):void
+notify():void
CreditCardPayment
-debtamount:int
-isFixedDow
-id:int
-date:Date
-creditcard:CreditCard
-observers:List:Observer
-paymentStrategy:PaymentStrategy
-creditcardtype:Enum
-status:enum
+CreditCardPayment(amount: int, isPaid: boolean, id: int, date: Date, card: CreditCard, observers: List, strategy: PaymentStrategy, cardType: enum)
+makepayment(amount: double):void
+updateStatus(status:enum):void
+increaseDebtAmount(amount:double):void
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
depositWithdrawTransactions
-transactionType: String
-transactionDate: Date
-transactionAmount: double
-status:enum
+depositWithdrawTransactions(type: String, date: Date, amount: double, status: enum)
+deposit(account: Account)
+withdraw(account: Account)
+deposit(creditCard: CreditCard)
+withdraw(creditCard: CreditCard)
+attachObserver(observer:Observer):void
+detach(observer:Observer):void
+notify():void
Account
-AccountNumber:String
-AccountHolderNameString
-balance:double
-billList:List<bill>
-transferList:List<Transfer>
-accountType:String
-depositAndWithdrawList:depositWithdrawTransactions
+Account(num: String, name: String, balance: double, billList: List, type: String, transactions: List)
+addBill(bill:BillPayment):void
+addCreditCardPayment(creditcardpayment:CreditCardPayment):void
+addTransfer(transfer:Transfer)
+viewTransfers():void
+viewCreditCardPayment():void
+viewBillPayment():void
+viewBalance():void
+changeAccountType(String type):void
+depositOrWithdraw(amount : int, type: string, date: Date)
AccountFacade
-accounts:List<Account>
-creditcards:List<creditcards>
+AccountFacade(accounts: List, cards: list)
+viewAllTransactions():void
+viewCreditCardTransactions():void
+viewAccountTransactions():void
+viewBills():void
+viewCreditCardPayment():void
+viewTransfers():void
+depositOrWithdraw():void
Use
Extends
Extends
Extends
Internally
-RecieverAccountno:String
+Internally(accNum: String)
+transferMoney(amount:double ,RecieverAccountno:int):void
Domestic
-RecieverAccountno:String
-RoutingNo:String
+Domestic(accNum: String, routingNum: String)
+transferMoney(amount:double, ,RecieverAccountno:int, RoutingNo:String):void
International
-RecieverAccountno:String
-swiftcode:String
-CountryName:String
-currency:String
-loan: String
+International(accNum: String, swiftCode: String, name: String, currency: String, loan: String)
+transferMoney(amount:double ,RecieverAccountno:int,swiftcode:String):void
<enumeration>
LoanType
Personal
Car


Notification
-notificationId:int
-message:String
-date:Date
+Notification(id: int, message: String, date: Date)
+setMessage(message:String):void
<Interface>
SubjectForAnnouncements
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
notifies
ReminderManager
-reminders:List<Reminder>
+ReminderManager()
+createReminder(reminder:Reminder):void
+deleteReminder(reminder:Reminder):void
+checkRemindersDue():void
<Interface>
ObserverforAnnouncments
+updateAnnouncments(notification Notification):void
<Interface>
Observer
+update(notification Notification):void
Banker
-name:String
-BankerId:String
-email:String
-phoneno:String
+Banker(name: String, id: String, email: String, phone: String
+aproveReq(request:Request):void
+RejectReq(request:Request):void
+solveIssue(issue:financial issue): void
bankAnnouncements
- description: String
-title:String
-highImportance: boolean
-clients: List<ObserverforAnnouncments>
+bankAnnouncements(description: String, title: string, highImportance: boolean, clients: List)
+ setHighImportance():void
+ setDescription() : void
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
issues
- id : int
- reporter: string
- description - string
- isResolved - boolean
- date : Date
-clients: List<ObserverforAnnouncments>
+issues(id: int, reporter: string, isResolved: boolean, date: Date, clients: List)
+ getDetails(): String
+reportIssue(): void
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
Extends
Extends
technicalIssues
-browser - string
+technicalIssues(browser: String)
+submitIssue(): void
+ getDetails(): String
financialIssues
- account account
+financialIssues(account: Account)
+submitIssue(): void
+ getDetails(): String
<<enumeration>>
ReminderTypes
Gas bill
Electricity bill
Telephone bill
Loan installment
Credit card bill
Water bill
Reminder
-id:int
-title:String
-message:string
-date:Date
-client:Client
-TypeOfreminder:enum
+Reminder(title:String,message:String,date:Date,client:Client,Type:enum)
Client
-clientID:int
-firstName:String
-lastName:String
-email:String
-Phone:String
-accountFacade:accountFacade
-accounts:list<Account>
-creditcards:list<CreditCard>
-requests:List<Request>
-loans:List<loan>
+Client(id: int, fname: String, lName: strign, email: String, phone: String, accounts: List, cards: List, requests: List)
+register(username:String,password:String):void
+login(username:String,password:String):void
+logout():void
+closeAccount():void
+createAccount(type:String):void
+requestforCreditCard(ClientID:int):void
+requestforLoan(clientId:int,loanType:enum):void
+fileComplain(clientId:int,description:String):void
+updateAnnouncments(notification Notification):void
+update(notification Notification):void
+setReminder(title:String,message:String,date:Date,client:Client,Type:String):void
+recieveReminder():Reminder
+reportIssue(): void
+viewAllTransactions():void
+viewCreditCardTransactions(): void
+veiwAccountTransactions(): void
notifies
Use
Use
observes
Request
-status:enum
-type:String
-clientID:int
+Request(status: enum, type: String, id: int)
+submitReq():void
<<enumeration>>
Status
Approved
Pending
Rejected
creditCard
-creditcardpayment:List<CreditCardPayment>
-ccv : int
-cardNumber: int
-client: Client
-limit: double
-balance: double
-status: string
-points: int
-password : string
-depositAndWithdrawList<depositWithdrawTransactions>
+creditCard(list: List, ccv: int, client: Client, limint: double, balance: double, status: string: points: int, password: string, transactionsList: List)
+Suspend(): void
+Deactivate(): void
+updateInfo(): void
+addPoints(amount : int): void
+redeemPoints(amount: int): void
+viewPoints(): void
+viewDebtPayment():void
+depositOrWithdraw(amount: int, type: string, date: Date)
0..*
PaymentContext
-paymentStrategy:PaymentStrategy
+PaymentContext(strategy: PaymentStrategy)
+setPaymentStrategy(amount:double,paymentStrategy:PaymentStrategy):void
+request(amount:double, paymentStrategy:PaymentStrategy):void
<Interface>
PaymentStrategy
+makePayment(amount:double,recipient:String):void
bankPaymentStrategy
-AccountNo:String
-RoutingNo.:String
+bankPaymentStrategy(acc: String, rounting: String)
+makePayment(amount:double,recipient:String):void
ThirdPartyPaymentStrategy
-paymentToken:String
-paymentApiKey:String
-methodName: String
+ThirdPartyPaymentStrategy(token: String, apiKey: String)
+makePayment(amount:double,recipient:String):void
<Interface>
Subject
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
<<enumeration>>
CCPaymentType
Partially
fully
Use
0:*
0:*
BillPayment
-isPaid:bool
-id:int
-payeeNumber:int
-amount:double
-date:date
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
--status:enum
+BillPayment(isPaid: boolean, id : int, payeeNumber: int, amount: double, date: Date, observers: List, strategy: PaymentStrategy)
+changeDueDate(date:Date):void
Transfer
-id:int
-senderAccountNO:String
-status:enum
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
+Transfer(id: int, sender: String, status:
Loan
-id:int
-amount:double
-interestrate:double
-LoanType:enum
-LoanStatus:enum
-duration:int
-startDate:Date
CreditCardPayment
-debtamount:int
-isPaid:bool
-Id:int
-date:Date
-creditcard:CreditCard
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
-creditcardtype:Enum
-status:enum
depositWithdrawTransactions
-transactionType: String
-transactionDate: Date
-transactionAmount: double
--status:enum
+depositWithdrawTransactions(type: String, date : Date, amount: double, status:
Account
-AccountNumber:String
-AccountHolderName:String
-balance:double
-billList:List<bill>
Use
AccountFacade
-accounts:List<Account>
-creditcards:List<creditcards>
+AccountFacade(accounts: List, cards: list)


-balance: double
-status: string
-points: int
-password : string
-depositAndWithdrawList<depositWithdrawTransactions>
+creditCard(list: List, ccv: int, client: Client, limint: double, balance: double, status: string: points: int, password: string, transactionsList: List)
+Suspend(): void
+Deactivate(): void
+updateInfo(): void
+addPoints(amount : int): void
+redeemPoints(amount: int): void
+viewPoints(): void
+viewDebtPayment():void
+depositOrWithdraw(amount: int, type: string, date: Date)
0:*
+recieveReminder():Reminder
+reportIssue(): void
+viewAllTransactions():void
+viewCreditCardTransactions(): void
+viewAccountTransactions(): void
Pending
Rejected
PaymentContext
-paymentStrategy:PaymentStrategy
+PaymentContext(strategy: PaymentStrategy)
+setPaymentStrategy(amount:double,paymentStrategy:PaymentStrategy):void
+request(amount:double, paymentStrategy:PaymentStrategy):void
<Interface>
PaymentyStrategy
+makePayment(amount:double,recipient:String):void
bankPaymentStrategy
-AccountNo:String
-RoutingNo.:String
+bankPaymentStrategy(acc: String, rounting: String)
+makePayment(amount:double,recipient:String):void
ThirdPartyPaymentStrategy
-paymentToken:String
-paymentApiKey:String
-methodName: String
+ThirdPartyPaymentStrategy(token: String, apiKey: String)
+makePayment(amount:double,recipient:String):void
<Interface>
Subject
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
<<enumeration>>
CCPaymentType
Partially
fully
Use
0:*
BillPayment
-isPaid:bool
-id:int
-payeetNumber:int
-amount:double
-date:date
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
--status:enum
+BillPayment(isPaid: boolean, id : int, payeeNumber: int, amount: double, date: Date, observers: List, strategy: PaymentStrategy)
+changeDueDate(date:Date):void
+changeAmount(amount:double):void
+makepayment(amount :double)
+updateStatus():void
+cancelPyment():void
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
Transfer
-id:int
-senderAccountNO:String
-status:enum
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
+Transfer(id: int, sender: String, status: enum, observers: list, strategy: PaymentStrategy)
+updateStatus(status:enum);
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
+makepayment(amount :double)
Loan
-id:int
-amount:double
-interestrate:double
-LoanType:enum
-LoanStatus:enum
-duration:int
-startDate:Date
-endDate:Date
-observers:List<Observer>
+Loan(id: int, amount: double, rate: double, type: enum, status: enum, duration: int : start: Date, end: Date, observers: List)
+makePayment(amount:double):void
+calculateInterest():double
+ViewLoan_details():double
+calculate_total_payment():double
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
child
CreditCardPayment
-debtamount:int
-isPaid:bool
-id:int
-date:Date
-creditcard:CreditCard
-observers:List<Observer>
-paymentStrategy:PaymentStrategy
-creditcardtype:Enum
-status:enum
+CreditCardPayment(amount: int, isPaid: boolean, id: int, date: Date, card: CreditCard, observers: List, strategy: PaymentStrategy, cardType: enum)
+makepayment(amount :double):void
+updateStatus(status:enum):void
+increaseDebtAmount(amount:double):void
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
depositWithdrawTransactions
-transactionType: String
-transactionDate: Date
-transactionAmount: double
--status:enum
+depositWithdrawTransactions(type: String, date : Date, amount: double, status: enum)
+deposit(account: Account)
+withdraw(account: Account)
+deposit(creditCard: CreditCard)
+withdraw(creditCard: CreditCard)
+attachObserver(observer:Observer):void
+deattach(observer:Observer):void
+notify():void
Account
-AccountNumber:String
-AccountHolderName:String
-balance:double
-billList:List<bill>
-transferList:List<- Transfer>
-accountType:String
-depositAndWithdrawList<depositWithdrawTransactions>
+Account(num: String, name: String, balance: double, billList: List, type: String, transactions: List)
+addBill(billBillPayment):void
+addCreditCardPayment(creditcardpayment:CreditCardPayment):void
+addTransfer(transfer:Transfer);
+viewTransfers():void
+viewCreditCardPayment():void
+viewBillPayment():void
+viewBalance():void
+changeAccountType(String type):void
+depositOrWithdraw(amount: int, type: string, date: Date)
AccountFacade
-accounts:List<Account>
-creditcards:List<creditcards>
+AccountFacade(accounts: List, cards: list)
+viewAllTransactions():void
+viewCreditCardTransactions():void
+viewAccountTransactions(): void
+viewBills():void
+viewCreditCardPayment():void
+viewTransfers():void
+depositOrWithdraw():void
Use
Extends
Extends
Extends
Internally
-RecieverAccountno:String
+internally(accNum: String)
+transferMoney(amount:double ,RecieverAccountno:int):void
Domestic
-RecieverAccountno:String
-Routingno:String
+Domestic(accNum: String, routingNum: String)
+transferMoney(amount:double, ,RecieverAcountno:int, Routingno:String):void
international
-RecieverAccountno:String
-swiftcode:String
-CountryName:String
-currency:String
-Iban: String
+international(accNum: String, swiftCode: String, name: String, currency: String, iban: String)
+transferMoney(amount:double ,RecieverAccountno:int,swiftcode:String):void
<<enumeration>>
LoanType
Personal
Car
0..*
1