Credit Card Processing System Class model

Bank
- name: String
- address: String
- Swiftcode: String
- Process Transaction
- update details

contracts with 0..*

Merchant
- name: String
- category: String
- address: String
- request Authorization
- update details

Fraud Alert
- alertTime: datetime
- description: String
- severity: String
- Type: String
- raise Alert
- resolve Alert

Raises 0..* — *MadeAt* 0..1 — 1

Transaction
- date: date
- amount: double
- type: String
- status: String
- Authorize
- reverse
- Settle

DebitedFrom 1 — transaction

Authorize
- code: String
- timestamp: datetime
- status: String
- approve
- decline

1..*

Statement
- PeriodStart: date
- PeriodEnd: date
- total amnt: double
- generate Stmt
- email Stmt

{Sequence} *
Generates

Account
- accType: String
- balance: double
- status: String
- debit
- credit
- update Status

1 account

1 | linkedTo | 1..*

Card
- expiry Date: date
- CVV: int
- Status: String
- activate card
- block card
- renew card

Owns 1..* {ordered}

old card 0..1
Replacement for 0..1 new card 0..1

Card Holder
- name: String
- address: String
- email: String
- phone: String
- update contact info
- report lost card
- request Stmt
- cardno: String

Owns 0..1 — 1

Debit card
- dailylimit: double
- Set daily limit

Credit card
- creditlimit: double
- increase limit
- calculate Interest

Prepaid card
- stored Balance: double
- reload Balance
- deduct Balance