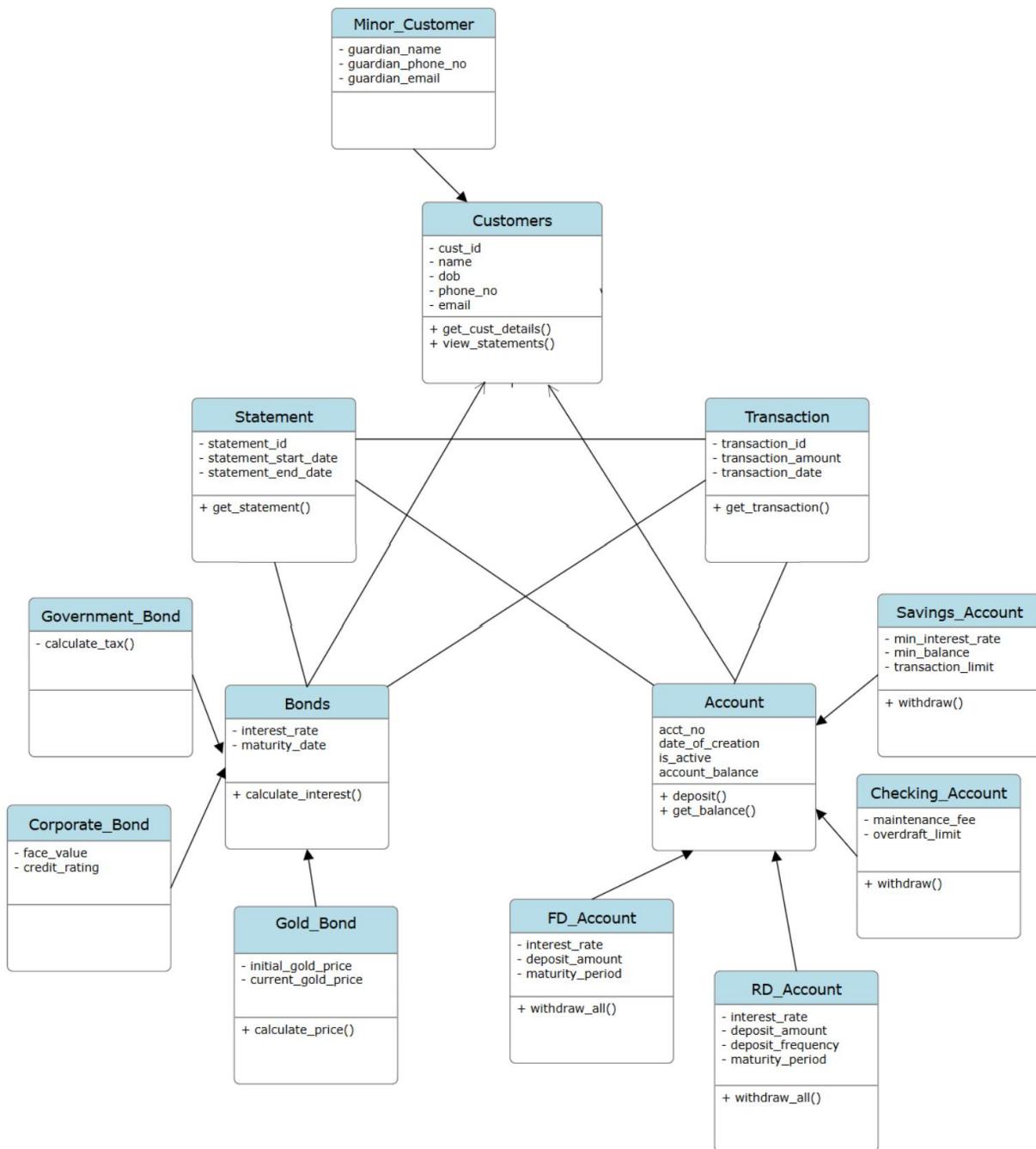


Banking System: Class Diagram



Bonds:

- Gold bonds: the price of gold bonds is calculated using the price of gold at the time of withdrawal and price of gold when the bond was bought. The time period and interest rate are usually fixed by the government of a place.
- Government bonds: buyers receive a certain tax benefit
- Corporate bonds: issued by companies, high risk
 - face value: amount repaid at maturity
 - credit score: ability of the issuer to repay

Accounts:

- Checking account: daily spending account. Has a maintenance fee levied by the bank periodically. Can temporarily borrow money (overdraft) if account is empty - overdraft limit is the maximum amount of money borrowed.
- Savings account: Also for regular spending, returns interest (interest rate). Needs a minimum amount of money to be in the account at all times.
Deposit accounts: deposit money, get returns. Cannot use these accounts for regular transactions. These accounts are signed for a certain maturity period, at the end of which all the money will be returned.
- Fixed deposit: lump sum money deposited at beginning
- Recurring deposit: regular amounts of money deposited periodically

Assumptions:

- Minor accounts cannot withdraw, can only deposit
- Withdrawal functions for deposit accounts v/s others differ because deposit accounts are supposed to only withdraw when the amount expires or a couple times in between in cases of emergency (which will be penalized).

Online payment transaction:
Sequence Diagram

