

Auction House Design

Design Doc for the Auction House assignment

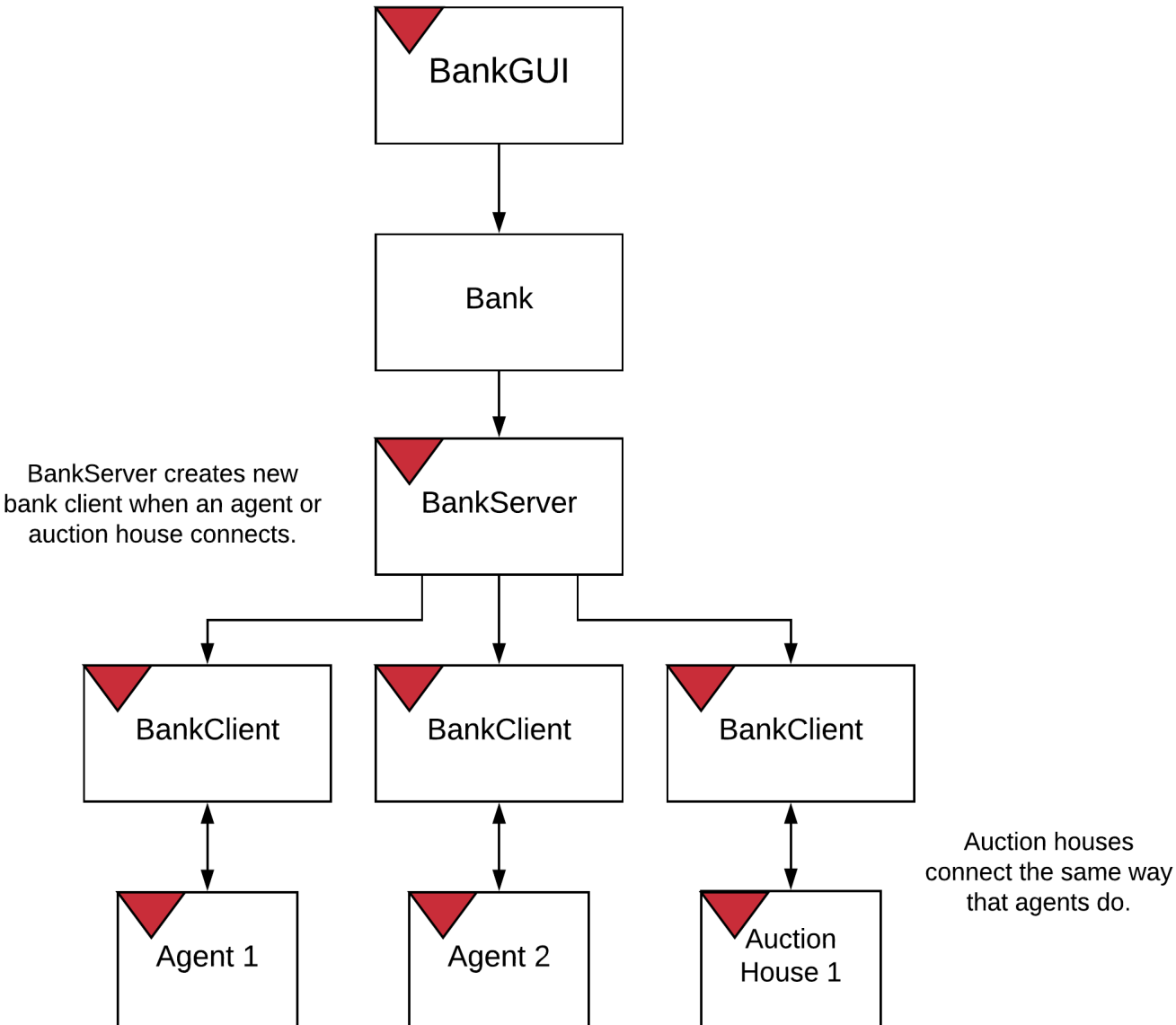
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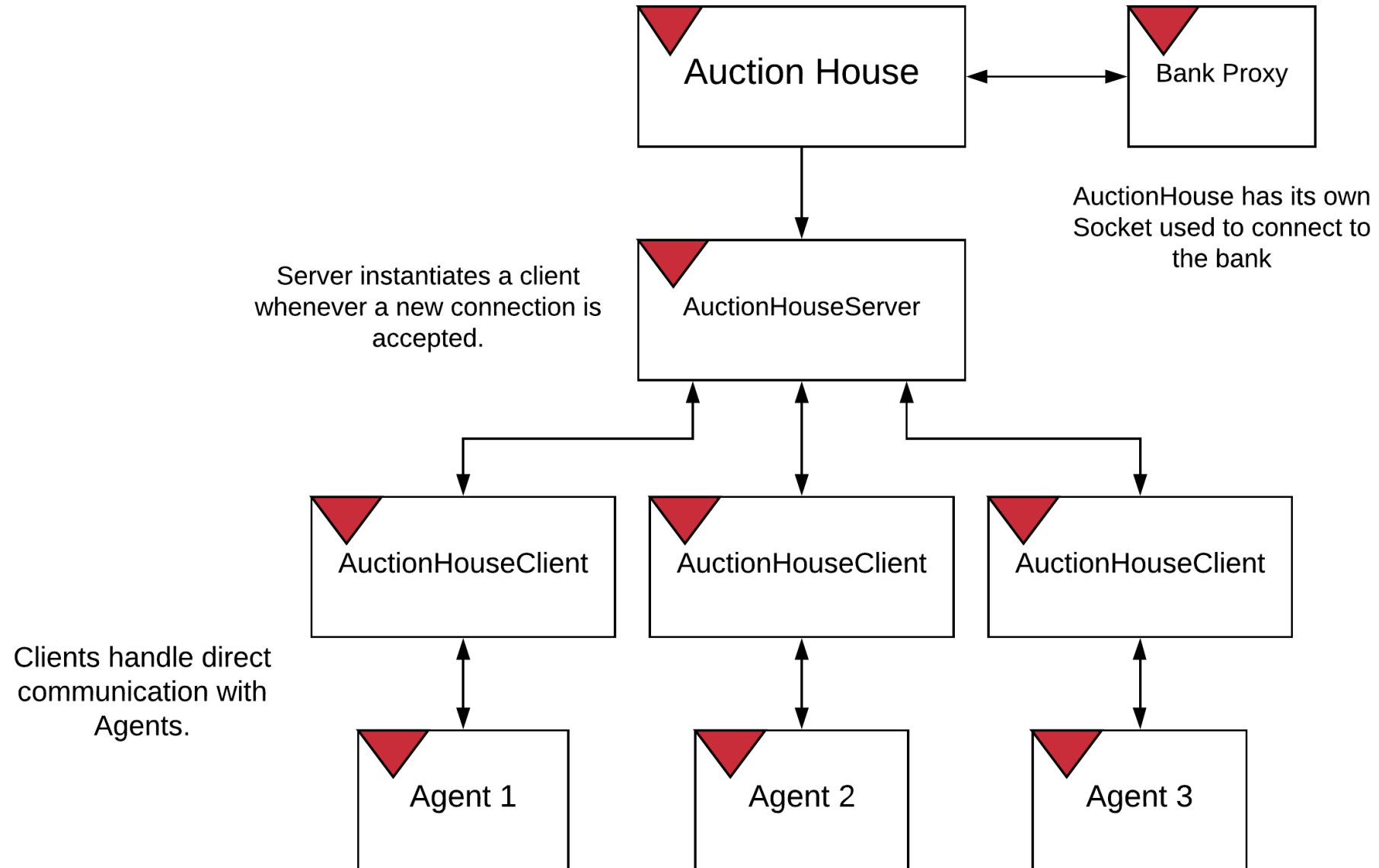
Bank Structure



Bank Methods

- **void openNewAccount(String name, double initialDeposit)** – Opens a new bank account with the given name
- **int getAccountNumber()** – returns account number
- **int getBidKey()** – returns bid key
- **Account getAccount(int accountNumber)** – returns account by number
- **void setAccountHold(int bidkey, double bid)** – locks funds in the given account by the bid amount.
- **double getBalance(int accountNumber)** – returns the balance of the given account
- **boolean hasEnoughFunds(int key, double bid)** – returns whether the given account has enough funds to make the bid.
- **boolean isValidNumber(int accountNumber)** – returns true if the given account number is valid.
- **String getAccountDetails(int accountNumber)** – returns the account details of the given account number in string form.
- **String getAuctionAccountDetails(int accountNumber)** – returns the account details of the given auction account.
- **String getAuctionString()** – returns a string containing all the available auction houses.
- **void moveMoney(int accountA, int accountB, double amount)** – moves money from one account to the other.

Auction House Diagram



Auction House Methods (Public)

- **boolean bid (int key, String name, double amount)** – Attempts to make a bid on behalf of the owner of the key on the Auction that is selling the item of the given name. Returns false if bid amount is insufficient or account owner doesn't own enough money.
- **void auctionDone(Auction auction)** – shuts down the given auction and sends out a win message to the winner.

Agent sends messages and
receives responses from bank
and auction house

