Auction House Context

- [Auction](#) Wikipedia definition
- A **seller** of an **item** gives permission to the **auction house** to auction it off and take 5% of the sales price
  - A **customer** browses **auction house** to locate **items** of interest
  - If a **customer** wants to place a bid, they must become a **buyer**
- **Admin** is responsible for managing **auction house**
- Total of **29** use cases to complete
- Simplifications
  - No credit card/$$: Assume all financial transactions succeed
  - No shipping costs for auction: Assume that in all successful auctions, the item is shipped to the buyer
  - No need to alert buyer (or seller) when auction ends. Seller is responsible for fulfilling all successful auctions

Seller Use Cases (12)

- Create account
- Close account
- Login account
- Add item
- Remove inactive item
- Edit item
- Publish item
- Review items
- Fulfill item
- Unpublish item
- Archive item
- ~~Request unfreeze~~
- Request unfreeze item

A closed account is disabled for activity and then cannot be logged in again. Cannot close if you have active auctions.

Add item uploads item for seller, but it is not "active" until **seller** publishes the item. **seller** can remove an *inactive* item and edit details about an *inactive* item

A **seller** can review their items to see which ones are *inactive (not yet published), active (waiting for more bids), failed (time has expired without any bids), completed (time has expired with bids) and archived (item has been fulfilled)*

seller is responsible for fulfilling an item whose ending time has expired. Funds are withdrawn from winning **buyer**

seller can unpublish an active item that does not have any current bids

seller can archive an *inactive* item.

Items when published

- ITEM
  - Must have (at least) one image
  - Has a description
  - Has a name
  - Has an initial price that must be at least $1
  - OPTIONAL start date [which becomes fixed once published]
    OPTIONAL end date [which becomes fixed once published]
- SELLER
  - Length of auction period (how many days)
    - Each item can be at different length of time
    - Period starts right away when published [see start/end above]
  - If at least one bid then COMPLETE
  - All bids are whole dollar amount no fractions or decimals
- BUYER
  - Initial bid is for the set price
  - Every subsequent bid must be at least $1 higher than last bid

Customer (3)

- Search items
- Sort items
- View item

customer can search all active items using keywords (as a potential substring of name or description ignoring type), price ranges

ITEM | name | price | start | end

customer can sort all active items by price, date (published date and expiration date)

Customer can see the value of the highest bid (which could be initial price if no bids)

customer can view an active item (but not any of its bids) and then you can see description and any of its images

Buyer Use Cases (10)

- Open account
- Close account
- Login account
- Add funds
- Search recently sold
- Sort recently sold
- View item
- Place bid
- Review active bids
- Review purchases

- ~~Request unfreeze~~

When a **buyer** views an item, the **buyer** can see all bids on the item (date made, value, buyer id)

A **buyer** can search through all recently sold items (in past 24 hours) and view the items and bidding history

buyer can sort all recently sold items by price, date (published date and expiration date)

buyer can place a higher bid on an item whose time has not expired. **Buyer** either takes the next higher price (by $1) OR names a value that is higher). **Buyer** must have sufficient funds for all bids.

buyer can review list of all active items on which they have a bid.

buyer can review all past purchases where they were the successful bidder ONLY AFTER FULFILLMENT.

~~buyer can request to unfreeze their account (if it was frozen). ; once frozen, that buyer can only login to their account where they can request to be unfrozen~~

Buyer can see their funds. Cannot close if active bids.

EITHER be a Seller or a Buyer

Notes

- Buyer
    - When placing a bid, MUST HAVE enough funds TO ALLOW FOR ALL ACTIVE BIDS TO SUCCEED
    - Buyer cannot outbid themselves directly on an item

- ~~Buyer~~
    - ~~When a buyer is frozen, all bids by that buyer IN ACTIVE AUCTIONS are removed~~
    - ~~If that buyer becomes UNFROZEN they can once again place new bids~~

Admin Use Cases (4)

- ~~Freeze/Unfreeze buyer~~
- ~~Freeze/Unfreeze seller~~
- Freeze/Unfreeze item
- Generate Auction Report
- Generate Forensics Report

~~**admin** can freeze a **buyer** account; once frozen, that **buyer** can only login to their account where they can request to be unfrozen~~

~~**admin** can freeze a **seller** account; once frozen, that **seller** can only login to their account where they can request to be unfrozen.~~

~~When an admin freezes a seller account, all of the items that seller has (which are active) are then frozen.~~

admin can freeze an item that is currently on sale; a frozen item cannot receive any new bids. A frozen item cannot be fulfilled. When time expires for a frozen item it becomes a *completed* auction.

The **seller** is responsible for archiving a failed item and all bids are canceled.

Auction report contains the total $$ earned from 5% commissions on all sales

Admin can see the funds for the auction-house.