# Final project

The WoW Auction House in Alloy

#### Introduction



























### Alloy model

Players





**Auction House** 

Items





**Gold Coins** 

#### Alloy model

- Player: has Items; has Gold Coins; bids on Auctions.
- Auction House: hosts Auctions; has (listed) Items; has Gold Coins.
- Auction: has a seller Player; has an Item to be sold; might have a highest bidding Player or buyout Player.
- Item: belongs to a Player; has a status.
  - If listed for sale, is related to an Auction and has a highest bidder.
- Gold Coin: belongs to a Player or the Auction House.

#### Alloy model

- The Player must own the Item they intend to sell, and must not bid in their own auction.
- An Item can only be listed in one Auction at a time.
- An Auction ends at most after 3 steps.
  - The highest bidder Player becomes the Item owner.
  - If no bids were put, the Item returns to the original owner.
  - If a Player buys out the Auction, it ends immediately.
- The seller must pay a convenience tax to the Auction House over their earnings.

## Thank you!