

# Entity Classes

User		Child: Admin
<ul style="list-style-type: none"><li>- Stores name, portfolio, id</li><li>- Call votes or make transactions directly</li></ul>	<ul style="list-style-type: none"><li>- Portfolio</li></ul>	

Admin		Parent: User
<ul style="list-style-type: none"><li>- A user that can regulate and ban other users</li><li>- Control transaction flow</li></ul>		

Transaction		
<ul style="list-style-type: none"><li>- Stores id, asset being traded and other various information about the transaction.</li></ul>	<ul style="list-style-type: none"><li>- User</li><li>- Asset</li></ul>	

Portfolio		
<ul style="list-style-type: none"><li>- Stores array of assets</li><li>- get and set assets</li></ul>	<ul style="list-style-type: none"><li>- Asset</li></ul>	

Asset		
<ul style="list-style-type: none"><li>-Stores asset symbol, price, quantity.</li><li>- getter and setter for price and quantity</li></ul>		

Vote		
<ul style="list-style-type: none"><li>- stores id, symbol of asset being traded.</li><li>- stores voter name and vote power</li></ul>	<ul style="list-style-type: none"><li>-Transaction</li><li>-User</li></ul>	

# Use Case Classes

UserManager	
<ul style="list-style-type: none"><li>- Delete, add, get, set users</li></ul>	<ul style="list-style-type: none"><li>-User</li></ul>

Voting Manager	
<ul style="list-style-type: none"><li>- Add, delete, store votes</li></ul>	<ul style="list-style-type: none"><li>-Transaction manager</li><li>-Vote</li></ul>

TransactionManager	
<ul style="list-style-type: none"><li>- Delete, add, get, set, and store transactions</li></ul>	<ul style="list-style-type: none"><li>- Transaction</li></ul>

PortfolioManager	
<ul style="list-style-type: none"><li>- Update global portfolio</li><li>- Determine the net worth</li><li>- Stores performance history</li></ul>	<ul style="list-style-type: none"><li>-User manager</li><li>-TransactionManager</li></ul>

<I> DataAccessInterface	
<ul style="list-style-type: none"><li>- Load data from API (Used for dependency inversion)</li></ul>	

## <|> Command

- Force implementation of execute() which executes the command
- Classes that implement Command (executable commands) include:

**Help:** Get information on all available commands.

**Kick:** Kick a user out of the system.

**Leave:** Let the user leave the system.

**CheckPrice:** Get the current price of a stock.

**Upvote:** Vote in favour of a transaction.

**Downvote:** Vote against a transaction.

**CreateUser:** Register a new user into the system.

**ViewVotes:** View the existing votes for a transaction.

**Buy:** Initiate a buy transaction.

**Sell:** Initiate a sell transaction.

\* The referenced classes will all implement this interface with similar structures and demonstrate similar behaviour patterns, we forgo creating individual CRC cards for these classes for simplicity sake.

## Controller Classes

CommandParser	
<ul style="list-style-type: none"><li>• Parses the input string and outputs a command</li></ul>	-<I>Command

CommandExecuter	
<ul style="list-style-type: none"><li>• Takes a command and executes it.</li></ul>	-CommandPar sers

GraphicsPresenter	
<ul style="list-style-type: none"><li>• Visualizes data</li><li>• WIP</li></ul>	-PortfolioMana ger

## Interface Classes

CLI	
<ul style="list-style-type: none"><li>• Command line interface input</li></ul>	-Command Parser

GUI	
<ul style="list-style-type: none"><li>• Graphical user interface for displaying data</li></ul>	-GraphicsPresenter

YahooFinance	
<ul style="list-style-type: none"><li>• Inputs real-time financial data into the system</li><li>• Cleans up data</li></ul>	<I>DataAccessInterface