

User Story 1:

As a trader I want a system that will allow me to place orders and automates the process of dividing the order into chunks to be sold over the course of the day so that I do not have to perform this task manually. The system should retry for failed trades and divide repeatedly failed trades into smaller chunks. I want to be able to view the progress of the order as it happens and the status of each trade.

Use Case 1	Place order
Actor	Trader
Use Case Overview	The trader will receive an order from a stockholder. This order will require him to sell some amount of a particular stock. Currently, when he receives this order, he will divide it into chunks and attempt to sell each by manually calling the stock exchange. If he fails, he waits for a few minutes before trying again.
Subject Area	Trading
Trigger	The trader receives an order from a stockholder (e.g. someone calls him saying "sell 100,000 ACME ETFs").
Precondition 1	There are orders to be placed.
Precondition 2	The stock exchange is open (9.30am - 4pm).

Basic Flow: Make Order

Description	This scenario describes the situation where an order is partitioned, and every sale is successful. This is the main success scenario.
1	Trader receives phone call with order.
2	Trader writes order on the top of a sheet of paper.
3	Trader breaks order into chunks and writes each chunk on the paper.
4	Trader call stock exchange and asks if there is a buyer for the first chunk.

5	Once there is a buyer, trader writes selling price on paper, and crosses out the completed chunk.
6	Trader does this until there are no more chunks to sell.
Termination Outcome	Order is completely sold.

Alternative Flow 5A: Current chunk does not have buyer

Description	This scenario describes the situation where there is no buyer found for the current chunk.
5A1	Trader verifies that there is no buyer for current chunk.
5A2	Trader keeps calling exchange to find a buyer.
5A3	If no buyer is found after a number of calls to the exchange, trader will assume order is too large.
5A4	Trader will split current chunk into even smaller chunks.
5A5	Trader will repeat steps 5A2 through 5A4 until original chunk is sold.
Termination Outcome	Current chunk is sold.

Post conditions: Entire order has been sold.

Business Rules:

- Trades can only be performed during the trading day.
- Trades must be completed by the end of the trading day.

Use Case 2:	Monitor Order
Actor	Trader
Use Case Overview	<p>With the user's current workflow, he knows exactly how the trade is progressing since he calls the stock exchange personally, and can track how many chunks have succeeded + how much there is left to sell.</p> <p>Now as a trader using our system, he will want some way to monitor trade progress, and see whether each chunk has failed/succeeded. Our app will provide a progress feed of each chunk, whether it sold successfully, how much it sold for, and how much there is left to sell.</p>
Subject Area	Monitoring

Trigger	An order is placed, our system has cut it up into chunks and is attempting to sell each chunk.
Precondition 1	There is an active order in the system
Precondition 2	The stock exchange is open (9.30am - 4pm).
Precondition 3	The trader has noted down how he wants to split his order (e.g. 100k shares split into 10x10k chunks). He periodically calls the stock exchange to sell orders.

Basic Flow: Monitor Order

Description	The scenario describes the situation where the trader wishes to check the current the status of an order.
1	When a child order sell succeeds, trader notes down that it has succeeded and what price it sells for.
2	When it fails, trader makes a note and will try again in a few minutes.
3	If it still fails after several attempts, trader splits the chunk further (e.g. 10k shares now split into 2x5k) and notes this and tries to sell each chunk, monitoring the status of the trade as it progresses.
4	Trader repeats steps 1-3 until the order is completed, ensuring that he tracks down every failed/succeeded trade.
Termination Outcome	Trader is able to see what current order status is.

Task Board Link: <https://trello.com/b/J5WehrH2>

We used our task board to divide the two use cases between the two pairs. This has shown that one pair will be responsible for the front end of the implementation, while the other will be responsible for the back end.

User Story 1: Wireframes

A wireframe of a login window titled "Buy Sell Trade". The window has a title bar with standard minimize, maximize, and close buttons. The main content area contains a "Username:" label followed by a text input field containing the text "Admin". Below this is a "Password:" label followed by a password input field represented by a series of dots. At the bottom center is a rounded "Login" button.

A wireframe of a trading application window titled "Buy Sell Trade". The window has a title bar with standard minimize, maximize, and close buttons. Below the title bar is a tabbed interface with three tabs: "Make Trade", "Current Trades", and "Statistics". The "Make Trade" tab is selected. The main content area of the "Make Trade" tab is titled "Make Trade" and contains a form with the following elements: a "Trade" dropdown menu with a downward arrow, showing "Buy" and "Sell" options; a "Quantity" input field containing "100" followed by a "K" unit; a "Stock Name" input field containing "ACME ETF"; and a "Submit" button. A vertical scrollbar is visible on the right side of the window.



