Release Plan #2.0

Product Name: Financial Markets Platform
Team Name: LEEPS
Release Name: Release for Q2
Release Date: April 2, 2019 (Start of second quarter)
Revision Number: 2.0

High Level Goals

Note: This section describes the high level goals we completed last quarter and the state of our project as we enter into quarter 2. Parts of the project are still pending further discussion with our project sponsor.

Quarter 1 - Completed:

1. **Learn** the economics and finance of high-frequency trading.
2. Develop software to conduct financial market experiments based in algorithmic trading.
    a. Stage 1: A **simple trader** that is able to communicate with the Market Engine.
    b. Stage 2: **More advanced traders** that are able to communicate with the Market Engine. (This required the introduction of a separate Broker server)

Quarter 2 - To Do:

    c. Complete the **more advanced traders** from the previous quarter.
    d. Stage 3: Both **human and very algorithmic traders** that are able to communicate with the Market Engine (This requires the introduction of the oTree framework)
3. TBD with Prof. Lopez

High Level Goals + User Stories

Note: This section breaks up the high level goals into their user stories. We start right where we left off at the end of quarter 1. I included an estimation of the sprint breakdowns, as well.

Sprint 1:

2c. Complete the **more advanced traders** from the previous quarter.

- **[ ]** As a random trader, I want to **control the frequency and distribution of my order times** so I can emulate a poisson distribution.
- **[ ]** As a random trader, I want to **programmatically generate multiple instances** of myself so I can run experiments without having to start many new terminal instances manually. (Optional)
- **[ ]** As a broker, I want to integrate **order imbalance calculations** so I can make a more dynamic trading environment.
- **[ ]** As a maker & taker trader, I want to replace the hard coded calculations and **calculate my next order** based on the BB:BO:OI broadcast so I can implement the academic paper equations.

Sprint 2:

2d. Both **human and algorithmic traders** that are able to communicate with the Market Engine (This requires the introduction of the oTree framework)

- **[ ]** As any trader, I want to have **configurable constants** for aggressiveness, distribution, etc. so I can implement the academic paper experiment.
- **[ ]** As a financial experimenter, I want to **log all trading activity** into a CSV file so I can do data analysis.

Sprint 3:

- **[ ]** As a human trader, I want to be able to **connect to the trading environment** so I can participate in trading and experiments.
- **[ ]** As a human trader, I want to have a **simple user interface** so I can adjust my settings and variable configurations.

Sprint 4:

- **[ ]** TBD with Prof. Lopez

3. TBD with Prof. Lopez

Product Backlog

1. TBD