Economics 136
Team Assignments and Team Projects
Version January 28, 2020

We do some of our work in Economics 136 in teams. This document explains the rules for the formation of the teams and describes some of the team projects for the semester. Some projects will be assigned to all teams, other projects only to certain teams, and each team will be allowed to work on a chose project subject to the approval of Prof Evans.

Selecting Teams

I allow the students in the class to choose your own team-mates subject to the following rules and advisories:

1. Each team will consist of at least 4 and no greater than 6 members.
2. Each team can consist of at least three people who know each other, but each team must also be willing to accept a member from the other 4Cs or someone in the class from Mudd who doesn't know anyone **before** adding a fourth friend.
3. Each team will choose a name for identity purposes.
4. Each team will choose a leader who will mostly act as a liaison with Prof Evans
5. For the grading component, each team member will be given the same grade unless Prof Evans sees a strong reason for assigning a different grade (such as clear evidence that one team member is not contributing adequately to the team).

Team Tasks and Assignments

1. The teams and the CEO will be chosen during class time on Thursday, January 30.
2. The name of the team and the full name of each member of the team will be amended to this document on Google Drive by that Friday, January 31:

   https://docs.google.com/document/d/1GOjoASPSBfDREwgnCyXPrH2nJ4jjYOA_tMJe9Y8K63Q/edit?usp=sharing

3. Teams will work together on the in-class projects which will be assigned, mostly Python programming projects, periodically.

Team Projects that all teams must complete

1. Each team will identify 3 low-liquidity candidates for spread-arbitrage (like Nathan's Famous) by end of class February 13.
2. Each team will identify 2 high-volatility (or bio-med that approach FDA testing) candidate stocks for earnings strangles (like NFLX or AAPL) by March 26.
3. Each team will select from the growing list of large projects that are offered below or are proposed by the team (you can come up with your own project) at a reasonable time (some tend to be something we might want to do early in the semester, others only after you have learned background support material. This will be discussed in class.

Potential major team projects
(choose from this list or propose your own)

- **Build an inexpensive Linux headless workstation –** Based upon the prototype we are using in class, Prof Evans hopes that either two or three teams are willing to build a mini-ITX Ryzen workstation powered by a Linux distribution (Mint, Ubuntu or Ubuntu server, POP!_os, OpenSuse Tumbleweed) following instructions provided by Prof Evans OR even a Raspberry Pi V4 version of the same (without instructions … one of the students must know a little about the Pi). All parts and costs are paid by Prof Evans. If you want to get credit for building a workstation, this is where you do it. This might involve a productive Saturday or Sunday spent with Prof E.

- **Build a mean-reversion or tech analysis model –** Prof Evans doesn't think much of tech analysis but that doesn't mean that you have to agree. Python/Numpy prototypes for MA cross-over mean-reversion, Bollinger Band, RSI etc. models are common, such as at https://github.com/mrjbq7/ta-lib (although this version takes some work to set up) or at https://www.linkedin.com/pulse/connors-research-traders-journal-volume-1-does-mean-still-connors/ or the Medium approach (very large selection of Python models) at https://medium.com/auquan/tagged/trading-strategy

- Based upon criteria established by Prof Evans in his lecture about spread arbitrage, build a simple spread-arbitrage reaction model that allows the user to swiftly change limit orders in response to other trader reactions for a low-liquidity, wide-spread stock like Nathan's Famous.

… and more choices will be provided as the semester proceeds.