02.24.2020 -- Team Strategy

1. **Reminders & Upcoming Deliverables**
    a. Reminders!
        i.
    b. Upcoming Deliverables!
        i. Team Strategy Deliverable due **THURS (27FEB)**
        ii. Sponsor Call due by 05MAR (1.5 weeks)
        iii. Team Tech due 12MAR (2 weeks)
2. **Sponsor Call**
    a. Advice from Peko:
        i. Main point is to make sure there is clarity around the problem we are solving
        ii. MLB and us are aligned on the final project -- keep checking in on this throughout the semester!
        iii. What are we producing at each stage in the process
        iv. Who are stakeholders? Who is using this? Most important information?
    b. Write a meeting agenda -- point person (devon / zack?)
        i. Align on project and deliverables
        ii. What is relevant for them to know?
        iii. Thoughts on visuals
        iv. Communication thoughts -- preferred mode of comms?
        v. Key dates in the semester
    c. Let's also reach out to Devavrat and Anish!
        i. Simran!
3. **Technical Deliverable Thoughts**
    a. Deliverable **One** Description: *Analyze the difference between correctly called innings and innings with errors. Think about how you would like to do this comparison e.g. are you comparing all innings or ninth innings with other ninth innings? Only innings with starting pitchers? Or closers? Determine what is the best "apples-to-apples" comparison (your sponsor may be helpful in thinking through these issues) and determine whether there is a statistically significant difference.*
    b. What do we think about this project?
        i. Scope
            1. Factors to examine that have changed:
                a. Duration (pitches thrown)
                b. Number of runs scored
                c. Balls in play
                d. Number of hits
                e. Walks
                f. Strikeouts
            2. How do we want to bin them?

            a. By number of offensive vs. defensive advantage
                i. Then compare the bins and how the game is changed
                ii. Or does team ahead change how the umpire calls
            b. By criticality of call (strikeout/walk vs random pitch, runners on, score differential, number of pitches the pitcher has thrown)
        3. Ramsey -- how to add to the data set? (ex. How many mistakes per game)
            a. Store locally or on gcp?
        4. Reed -- what do we care the most about?
    ii. Milestones
        1. Number of mistakes in an inning -- Claire
            a. Offensive vs. defensive mistakes -- Devon
            b. Runs scored in that inning -- Simran
        2. Get some few mistake games and some high mistake games -- just take a glance
c. Deliverable **Two** Description: *Now that you have the coarse-grained statistics, we'd like you to look at a finer-grained picture and predict the outcome (i.e. total strikeouts, walks, homeruns, balls in play, and final score) for a given game if no mistakes were made by the umpire. (For starters you might want to choose a few games with a small number of mistakes to test your analysis). One method you may wish to explore is causal inference; there is a nice MIT thesis at https://dspace.mit.edu/handle/1721.1/120190 where this technique has been used to predict the outcome of cricket games. For this deliverable, set up the causal inference problem (e.g. select which parameters you would like to use to describe the state of the game) and show initial results. These do not have to be final at this point; in your next deliverable you will continue to explore this space using the machinery you set up here.*
d. What do we think about this project?
    i. Scope
        1. In order to predict forward, we need to know where we are
            a. What are the important descriptors about where I am? (Strikes, balls, outs, score, runners, pitches thrown)
    ii. Milestones
        1. Pull out the "state"
e. Try to breakout tasks and fill in some goals

4. **Review Semester Plan**
    a. Divide out tasks now that we foresee (especially wrt Team Tech 1!)
    b. Format?
5. **Additional Notes**
    a. **Video time!!!!!!!!** -- summarize what we did today!
        i. Simran was named Vlogger in Chief (VIC)