Joshua Ramos
Tyler Moore

Final Project Part I

Our team consists of Tyler Moore and Joshua Ramos and we plan on making a website for evaluating teams. The website will be relatively intuitive to navigate and the main thing we're focusing on is ranking teams on how they perform at hitters parks compared to how they perform at pitchers parks.

The datasets we will be looking at will be StatCast and potentially some of the Lahman databases. There might be other databases we will add in the future but as of right now we think that's all we'll need for what we plan on doing. We will have these databases connected in the back end. The website's functionality will be allowing the user to search for a team in a given year and see how they rank up compared to other teams with different park types. We will also be using the salary data in order to figure out if teams should be spending a large sum of money in order to get the most efficient offensive team.

How we plan on doing this is by first categorizing all the parks by park factors to determine and rank them by if they're a hitters park or a pitchers park. The end goal is to find the most effective hitting team, which will involve what teams can do well in harder environments aka pitchers parks. We plan on normalizing the data so the teams can be ranked on a more level playing field. For example, if a team has a park factor of 0.85 and averaged 3 runs a game, we would multiply 1.15 x 3 or (((1 - 0.85) + 1) * 3) so that it normalizes their run scoring. This is one way to compare teams with different park factors to see who has a better hitting team. We will do this same type of calculation with OBP, OPS, batting average, and other hitting stats in order to create a super score for each team using all our data in order to rank them. We should be able to produce a few graphs and charts to better help the user visualize how these teams are compared to each other and what certain teams are lacking statistically.

Overall we hope to find some pretty cool results and it will be an interesting project to complete. We've already begun working and have a rough layout of the website and are currently connecting it to the python backend. We haven't decided yet how we will run the website online but we're thinking about using the google cloud services. However, it would be great if you had any other recommendations. Also, any advice or suggestions on what we could add to make our project more accurate or things we should be looking at will be greatly appreciated.