Michael Pallante
Task 1
Previous_Work_Report

With my data science and sports background, I have had solid experience working on baseball data science projects. There are two specific projects that I will be discussing below, as they are of high relevance to major league baseball organizations. Both of these projects can be found on my GitHub, and I encourage you to visit the links I provide below for further review. I believe these baseball data science projects are strong demonstrations of my baseball aptitude and ability to deliver high quality baseball analysis.

- **MLB Talent Predictions**
  https://github.com/michaelpallante/mlb_talent_predictions
  - Project Goals:
    - Develop a predictive model that projects future WAR value of minor league talent to determine their overall value to major league organizations.
    - Develop a predictive model that forecasts the likelihood of minor league talent reaching the major league level.
    - Outline recommendations for developing the best possible on-field product for the New York Mets, while still maintaining a healthy farm system with strong minor league depth.
  - Key Takeaway:
    - Our team created projected-WAR (pWAR) and expected-WAR (eWAR) metrics to project future expected WAR value of minor league players. Looking at the results of our model from two years ago, we were highly successful in some of our predictions. Our best prediction was that our top prospect by eWAR and major league likelihood, Peter Alonso of the New York Mets who was only a Double-A prospect at the time, had one of the most successful rookie seasons in MLB history this year. Additionally, a couple of other prospects we projected to make the major league leap, including Amed Rosario and Tyler O'Neill, are now up in the major leagues and have shown some promise.

- **MLB World Series Markov Chain Model**
  https://github.com/michaelpallante/mlb_world_series_markov_chain_model
  - Project Goals:
    - Develop a Markov chain model that can be used to predict the outcome of events within the MLB World Series.
    - Use this model to predict the winner of each game in the MLB World Series, and as a result, the MLB World Series Champion
  - Key Takeaway:
    - My model examined the 2017 MLB World Series between the Los Angeles Dodgers and Houston Astros. My model simulations were able to successfully predict the winner of Game 7 of that series, the Houston Astros. I performed 10,000 simulations of Game 7, in which the Astros won that game 53% of the time and by an average score of 6.1 runs to 5.8 runs.