- **Introduction**

In this study, we are going to investigate how baseball player's handedness (left or right handed), height (in inches) and weight (in pounds) affect their performance (batting average and home runs). The dataset containing 1, 157 baseball players' information is provided by Udacity Nanodegree Data Analyst program.

Version1:

https://public.tableau.com/profile/ruoxi.zhao6797#!/vizhome/BaseballPlayerStory_V1/BaseballPlayerStory_V1?publish=yes

Version 2:

https://public.tableau.com/profile/ruoxi.zhao6797#!/vizhome/BaseballPlayerStory_V2/BaseballPlayerStory_V2?publish=yes

- **Design:** explain any design choices you made including changes to the visualization after collecting feedback

I chose to use **bar plots** to explore the percentage of players by handedness type and BMI group because it is a simple and easily read way to quickly understand the composition and the comparison between different types/groups.

Using **boxplots for different performance indicator** allow us to display the distribution of performance level for each player.

With **Scatter charts,** we can have a general idea of the relationship between two main performance indicators by handedness type and BMI group.

After adding titles and legends, the **major modification** I made between Version 1 and Version 2 is changing the mean represented by a bar plot to a boxplot. I found it is more visible to understand the data dispersion.

- **Feedback from others:**

“I would recommend clarifying the labels and adding notes for what we are supposed to look for--HR and Ave Ave mean nothing to me. I may not be the person to talk to, though, since I don't know anything about baseball.”

“Adding titles and legends to plots could help the reader understand more easily. The conclusion could be ameliorated with more details.”

- **Resources:**
    - **batting average:**
        - https://www.sportingcharts.com/dictionary/mlb/batting-average-avg.aspx
        - The average has generally ranged between .250 and .275, and players with batting averages above .300 are considered to be very good batters. A batting average of .400 over a season is considered to be the ultimate achievement
    - **home runs:**
        - https://www.sportingcharts.com/dictionary/mlb/home-run-hr/
        - https://en.wikipedia.org/wiki/Home_run
    - **BMI calculate**
        - https://www.bcbst.com/providers/MPMTools/BMICalculator.shtm
    - **BMI category**
        - https://www.betterhealth.vic.gov.au/health/healthyliving/body-mass-index-bmi
        - Under 18.5 – you are considered underweight and possibly malnourished.
        - 18.5 to 24.9 – you are within a healthy weight range for young and middle-aged adults.
        - 25.0 to 29.9 – you are considered overweight.
        - Over 30 – you are considered obese.
    - **Baseball player’s role:**
        - **power hitter:** a player with higher than average batting average along with a high number of home-runs
            - https://en.wikipedia.org/wiki/Power_hitter
        - **switch-hitter:** a player who bats both right-handed and left-handed
            - https://en.wikipedia.org/wiki/Switch_hitter