Project Title: Pandasy Football

Team Members: Bao, JR, Tom, Tiffany

Project Description/Outline:

* Determine best strategy for fantasy football team selections
* Analyze NFL fantasy football statistics focusing on 3 positions (QB, RB, WR) and primarily total fantasy football points for a given year
* Identify relationships between total fantasy football points and various player attributes (age, height, weight, combine run speed, passing yards, fumbles, NFL tenure)
* Utilize histograms to determine normal distribution, correlation, linear regression, scatter plots, box plots, IQ range
* Statistical summaries to include standard deviation, mean, median

Research Questions to Answer:

1. Which position(s) to draft in the first 5 rounds (60 players)?
2. Are total fantasy points normally distributed?
   1. Remember histograms here
3. Does age impact fantasy points?
   1. Breakdown by QB, RB, WR
   2. Remember reasoning on why we did by position (physical impact)
4. Is there a relationship between age and pass yards?
   1. QB
5. Is there a relationship between height and pass yards?
   1. QB
6. Is there a relationship between run speed and weight?
   1. QB, RB, WR
7. Is there a relationship between NFL tenure and total points?
   1. Look at initial draft year subtract from the stats year
   2. QB, RB, WR
8. Is there a relationship between fumbles and total points?
   1. QB, RB
9. Is there a relationship between run speed and total points?
   1. QB, RB, WR

Datasets to be Used:

* NFL Fantasy Football API: <https://api.nfl.com/docs/league/models/statistics/index.html>
* ESPN Fantasy Football API: <http://espn-fantasy-football-api.s3-website.us-east-2.amazonaws.com>
* Fantasy Football Data Pros: <https://www.fantasyfootballdatapros.com/csv_files>
  + Weekly and Annual Stats

Rough Breakdown of Tasks:

* TBD via Slack post class