DraftKings Lineup Design Document

Outline:

1. Scrape game by game statistics
   a. Pro football reference is a good source but is paginated weird and may need some data reformatted for ease of use
      i. http://www.pro-football-reference.com/play-index/
2. Store stats as csv file
3. Create predictive model for player statistics
4. Apply DK scoring formula to calculate expected DK points
5. Create lineups with linear program to optimize expected points subject to DK lineup construction rules
   a. Also can apply our own lineup construction rules for 50/50 vs tournament
   b. Example construction constraints:
      i. Not more than x players from the same team
      ii. Do not pair QB with receiver from same team
6. Script DK website to take advantage of late breaking news
   a. Alternatively figure out how to use the provided DK lineup tool effectively

General Notes:

- Not sure about best way to model player statistics. Any thoughts you have here would be cool
- We can play around with our own lineup construction rules to maximize/minimize variance. Might have to experiment to figure out exactly what structure to use.
- If you have private github might be better to host on yours. Mine is currently public