The repository is created for performing data analysis related to the yearly drafts that occur in the NFL.

**Brief Intro:**

* For starters, drafts are the medium through which nations best players from colleges step into the NFL arena. Also, the team which had the worst record last year gets to pick first in the draft. Likewise, team which won a championship last year, gets to pick last in a draft. In summary, teams pick in the reverse order of the standings that they finished last season.
* There are totally 7 rounds of draft with each team picking 32 players. There are additional compensatory picks awarded to teams based on a mystery formula that NFL only knows. The prospects who are picked earlier in the drafts generally tend to have stellar college records. The teams with worst record make use of the chance to get best players from college in earlier rounds to rebuild and strengthen their rosters.
* Teams are allowed to trade their draft picks with other teams.

NFL evaluates prospect grades every year before each draft. The way that is being performed is out of scope for this repo. This repo makes use of the already available data to perform

data analysis and prediction.

Source: <https://www.nfl.com/draft/tracker/prospects?year=2020>

Below is a legend of prospect grades from NFL site:

Prospect Grade legends provided by NFL:

|  |  |
| --- | --- |
| 8.0 | The perfect prospect |
| 7.3-7.5 | Perennial All-Pro |
| 7.0-7.1 | Pro Bowl talent |
| 6.7-6.8 | Year 1 quality starter |
| 6.5 | Boom or bust prospect |
| 6.3-6.4 | Will be starter within first two seasons |
| 6.1-6.2 | Good backup who could become starter |
| 6.0 | Developmental traits-based prospect |
| 5.8-5.9 | Backup/special-teamer |
| 5.5-5.6 | Chance to make end of roster or practice squad |
| 5.4 | Priority free agent |
| 5.0-5.1 | Chance to be in an NFL training camp |
| NO GRADE | Likely needs time in developmental league |

For example, below are the grades of QB prospects in 2017.

<https://www.nfl.com/draft/tracker/prospects/QB?college=allColleges&page=1&status=ALL&year=2017>

Analysis 1 of the repository:

Based on the year and prospect grades, calculate the average of the total prospect grades achieved by a given team in the draft. Teams with highest average prospect grade had the best draft among all teams and vice versa.

Total Prospect grade = Sum of individual prospect grades -> (1)

Average prospect grade per team = Total Prospect Grade(3)/Number Of Players Drafted by Team. -> (3)

The result is rounded to two places

**Below is the end point for achieving this purpose:**

**HTTP METHOD: GET**

Returns average prospect grades data per team for all the teams for a given year.

URI: <localhost>/draft/teamgrades/?year={year}&team={teamName}

{year} -> Mandatory

{teamName} will be assigned as “all” by default.

<http://localhost:8080/draft/teamgrades/?year=2020&team=all>

Output: A csv file will be generated.

Machine generated alternative text:
B 
AVERAGE GRADE NO OF PLAYERS DRAFTED 
10 
4 
D 
4.77 
4.79 
5.03 
5.19 
5.24 
5.29 
5.3 
5.37 
5.52 
5.94 
5.95 
5.95 
5.97 
5.97 
5.97 
5.98 
6.02 
6.04 
6.05 
6.07 
6.08 
6.09 
6.09 
6.12 
6.13 
6.14 
6.15 
6.19 
6.25 
6.25 
6.26 
6.28 
TEAM NAME 
New England Patriots 
New Orleans Saints 
6 Tennessee Titans 
7 Chicago Bears 
9 Green Bay Packers 
9 Indianapolis Colts 
7 Dallas Cowboys 
10 New York Giants 
12 Jacksonville Jaguars 
5 San Francisco 49ers 
6 Kansas City Chiefs 
9 Los Angeles Rams 
6 Atlanta Falcons 
10 Philadelphia Eagles 
6 Pittsburgh Steelers 
15 Minnesota Vikings 
7 Tampa Bay Buccaneer: 
8 Seattle Seahawks 
6 Los Angeles Chargers 
8 Washington Redskins 
10 
Denver Broncos 
9 
Detroit Lions 
5 
Houston Texans 
Miami Dolphins 
11 
7 Carolina Panthers 
Baltimore Ravens 
10 
Buffalo Bills 
7 
New York Jets 
9 
6 Arizona Cardinals 
7 Oakland Raiders 
7 Cleveland Browns 
7 Cincinnati Bengals 