

Draft Queens' Fantasy Football Simulator

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Introduction

This application is our own spin on the American classic, Fantasy Football. In order to produce accurate stats, we use a detailed dataset of the 2015 NFL regular season. The user will select a team name and the difficulty of the AIs he will play against before proceeding to the draft. Once the user and AIs draft teams of 7 players, the season will begin. Points are calculated every week depending on how your players performed in a random week from the 2015 NFL season. Every week, the team who boasts the lowest cumulative point total will be eliminated. Last one standing is the winner.

Database Schema

Our database schema consists of the following 8 tables:

1. Game - This relation keeps track of all the games played in the regular season of the NFL in 2015.
2. Play - This large relation contains thousands of tuples that track information of every individual play in every game.
3. Player - The Player relation contains playerIds, names, and other miscellaneous stats about the player such as height and weight. We have narrowed down the player table to relevant offensive players of the 2015 season.
4. Rush - This is a subset of the Play relation that contains more detailed information about rushing plays. It includes the ball carrier and the yardage gained.
5. Pass - This is a subset of the Play relation that contains more detailed information about completions. It includes the passer, receiver, and yardage gained.
6. Td - The Td relation holds information about all touchdowns of the 2015 season.
7. Team - This relation is a representation of the team users and AIs have put together through the draft.
8. Leaderboard - The leaderboard holds scores and teams of all the players that have played the game.

Application/Database Interaction.

The GUI of our project relies heavily on various database interactions. Some of the highlights include:

- Calculating weekly player scores and team totals through using stats that the player put up during a given week.
- Generating random players for the AIs to draft based on the difficulty. AIs will also swap players based on difficulty through database interaction.
- Moving players from the waiver wire onto teams and dropping players.
- Grabbing all the players, weekly scores, and stats of a given team to display on the GUI.

- Arbitrary retrieval of various columns in our database to display on the GUI.

Database Operations

1. Populating initial database using raw CSV files such as Player, Play, Rush, Pass
2. Creating a new team at the start of the draft
3. Updating team cumulative point totals every week
4. Removing players from list of available players when drafted or added onto team
5. Deleting the necessary tuples to ensure that the game can restart