Nathan Stackpole, Matthew Medeiros

SQL Team 6

10/30/17

Football Statistics DB

For our project, we have decided to focus on making a database displaying football statistics. The goal of our project is to have a comprehensive database of NFL statistics for the 2016 and 2017 seasons. The users will be able to follow their favorite teams and players and monitor them more closely. We also plan on implementing projections for the rest of the current season based on the statistics we have.

The domain of our project is sports statistics. We plan on using our database to store and analyze the statistics of NFL football players and teams. Our website will be useful for football fans who want to follow specific teams and players more closely. There are similar websites out there that display statistics for football players and teams. Ours will differ because it will allow users to focus more on their favorite players and teams, instead of the statistical leaders. The data we use will be real NFL recorded statistics. We plan on using open source software found on GitHub to pull the statistics from NFL.com. After we gather these statistics, we will write a script to reformat it and insert them into our database.

Our basic functions will include multiple ways to insert into different tables along with simple searches. We will let users create, edit and delete from their entry in our users table, and any of their entries in our favorite players and favorite teams tables. We will have options to search for both players and teams by name. These will be simple searches to implement. We plan on using a join to select the correct entries from favorite players and favorite teams to display on a dashboard to view those players.

We also plan on having several different types of advanced functions. The first advanced function we want to implement is a week to week and rest of season projection for both players and teams based on data in our database. Another advanced function we will need is one to parse and format our data from our data source. We also want there to be more functionality that you can do with your favorite players, but we haven’t determined what functions we want to include yet.

1. ER Design.
   1. Tables
      1. Users
         1. User\_Id (primary key)
         2. User\_Name
         3. User\_Password
      2. Players
         1. Player\_Id (primary key)
         2. Player\_Name
         3. Team\_Id (foreign key)
         4. Misc. stat fields
            1. Pass yards
            2. Rush Yards
            3. Receiving Yards
            4. Pass TDs
            5. RushTDs
            6. Receiving TDs
      3. Teams
         1. Team\_Id (primary key)
         2. Team\_Name
         3. Misc. stat fields
            1. Points scored
            2. Points allowed
            3. Total yards
            4. Passing yards
            5. Rushing yards
            6. Receiving yards
      4. Favorite Players
         1. FP\_Id (primary key)
         2. User\_Id (foreign key)
         3. Player\_Id (foreign key)
      5. Favorite Teams
         1. FT\_Id (primary key)
         2. User\_Id (foreign key)
         3. Team\_Id (foreign key)

