

For the **Referee** table, we wanted to make referee alone a primary key, with the remaining data being extended details about the games they officiated (for example, the number of fouls , yellow and red cards they gave out for each team). However, we realised that one referee actually officiates multiple games throughout the course of the campaign, thus contradicting our primary key constraint. This would cause us to have the same referee for multiple rows in our referee table, which violates the uniqueness of the **primary key constraint**. Therefore, we decided to give the referee table a combined primary key of (referee,hometeam,awayteam), since one team only plays another at home once throughout the campaign.

When coming up with the 'cleansheets' column for **HomeStats** and **AwayStats**, we realised that there are in fact teams that simply never kept any clean sheets for away games; when we did queries to find the clean sheets for each team, they simply did not pop up. Therefore, we had to set the **Not Null constraint** for 'cleansheets' column and manually set each of those null values to 0 for our data.

For the **Betting** table, we initially wanted to have the betting companies as primary keys in order to make the table give us information pertaining to each company for their bets regarding the games. But then we realised that the **Betting** table violates its **Primary key constraint** since each betting company sets bets for multiple games. Therefore, we decided to modify our table to add a column called oddsID, which corresponds to the betting odds for that particular game. Then we made oddsID our primary key for **Betting** table and chose 4 betting companies to be showing the odds for each of these games. We initially had 12 companys' betting stats but we decided to **minimize** the data since each company was giving us 3 columns each for win odds, draw odds and loss odds.

### **Glossary**

Clean sheets: When the opposing team scores zero goals

Away games: Games played not in your home stadium

Home games: Games played in your home stadium