StrikerRank

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Project Overview

- Expected Goals (xG): probability shot will go in based on various factors (%)
- Real Goals (rG): actual goals (0 or 1)
- rG minus xG: one useful way of measuring how good a striker is

- Market Value: estimated transfer fee a team would have to pay a player's team to acquire the player

Data Sources

- FBRef: a good source for raw soccer stats
- TransferMarkt: a good source for player market values

FBRef Scraper: https://github.com/fisherm123/soccerdata

TransferMarkt Scraper: https://github.com/fisherm123/transfermarkt-scraper

Tech Stack

- Scrapers
  - Python
- Database
  - PostgreSQL
  - pgAdmin4 (easy for importing large csv files)
- Web App
  - Flask
  - Psycopg2 (connects to PostgreSQL servers)
  - HTML/CSS/JavaScript

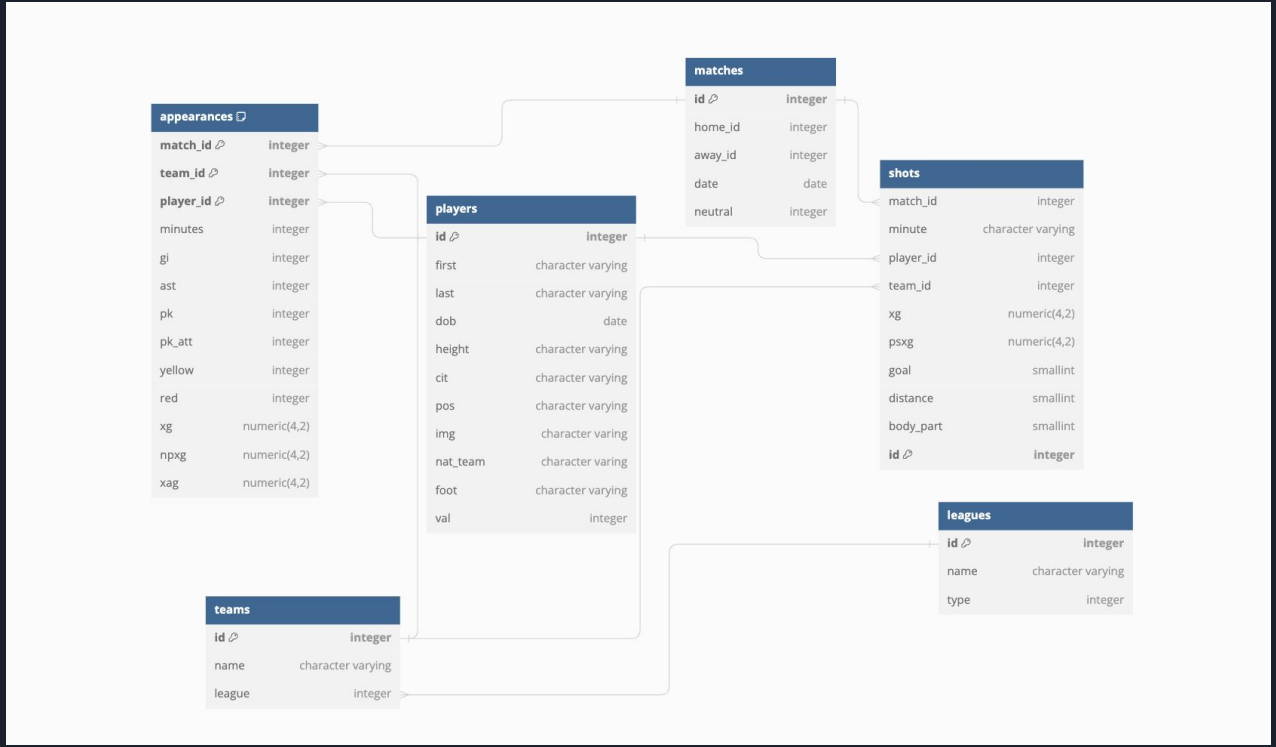
GitHub: https://github.com/fisherm123/strikerrank

Database Design

Schema

Key Design Choices:

- No match score
  - Smaller files
  - Longer compute
  - Player-focused analysis
- No team attribute for players
  - Transfers mid-season
- Player image is saved as a link



Main Features

- Ranked list of players by our key metric alongside market value
- Dynamic filter (options adjust automatically if more data is scraped)
- Increase query size
- Player-specific info menu

Good Decisions

- Scraping our own data
  - After initial time investment can get whatever data we needed
  - Expansion of project as simple as rerunning scraper
- Multi-tier database design

Bad Decisions

- Scraping our own data
  - High initial time investment
- Proper Data Cleaning
  - Frequently failed quality checks
  - Harder to find problem than solve it from beginning