

Write a brief description of your database architecture (<250 words). Feel free to provide a visual representation as an aide. Submit relevant responses in the written\_responses folder provided.

The PostgreSQL database extracts and structures the given dataset into five core entities as the database schema visualizes with Team, Player, Game, PlayerStats, and Shot. Each entity is represented in the Django model for the player search system using a relational database model. Foreign keys define the relationships between the entities to ensure data integrity in the PostgreSQL database as follows:

- **Team:** The team table stores team information, with `team_id` as the primary key. Each team is associated with multiple players.
- **Player:** The player table tracks individual player data, linking each player to a team through the foreign key `team_id`.
- **PlayerStats:** The `player_stats` table captures detailed statistics for each player during a specific game. It includes data such as points, assists, and rebounds. It is linked to both the player and game tables using foreign keys (`player_id` and `game_id`).
- **Shot:** The shot table records each shot attempt, whether it was successful (`is_make`), and the shot location (`location_x`, `location_y`). It is linked to `player_stats` via the foreign key `player_stats_id`.
- **Game:** The game table stores information about games, including the participating teams (`home_team_id` and `away_team_id`) and the date of the game.

This schema provides an efficient, normalized structure to manage team performance, individual player statistics, and detailed shot information, ensuring scalability and data consistency.