Cricket League Management System

We run an international cricket league with teams playing matches and fans following along. We need to collect player info, ticket prices and schedules to increase the popularity of the tournament by generating revenues. Our problem is handling all this data effectively. Our current way of managing cricket data is causing problems. There's too much data to handle, and mistakes are creeping in. Hence, we are designing a simple database to capture all the information including Player's info, capacity of the stadiums, team's history of winning and losing among others.

Undoubtedly designing a database for a cricket league can become complex, so we have added some limitations:

- We are assuming that only 5 teams from the same continent are playing in the league.
- We are assuming that each team plays 4 matches followed by the 2 semi-finals and 1 final match of the league (so total 6 matches).
- The match is being played for 20 overs only.
- We are only collecting the data of runs and wickets for batsmen and bowlers respectively.
- Irrespective of the stadium, the price of tickets are fixed.
- Only one match per day is scheduled.
- Only 5 stadiums are considered in the tournament.
- There are a maximum 15 players in one team(playing 11 and 4 substitutes).
- Every match is played between 2 teams.
- Names and DOB of each player are different.
- Each Stadium has a unique name.

Data Requirements:

Players:

- Every player will have their own name, id and date of birth.
- Each of them will have specific roles (Batsman, Bowler, All-rounder, Wicket-keeper).
- Each of them will have their own performance statistics (for batsmen - runs and bowlers - wickets and all rounders – both runs and wickets).
- Each player belongs to one team.

Teams:

- Every team will have a group of players that will compete with other teams.
- All teams will have a unique name and id.
- Each team will have a Captain of their own.

Stadiums:

- Seat capacity of the stadium.
- Name of the Stadium will be unique.

`**Fans:**

- Fans are categorized as adults(above 18 years) or children(below 18 years).
- Name & Age of the fans are taken.
- Each fan can have multiple email Id.

Match:

- Each match has a fixed date and a unique match id.
- Date & Time of each match is taken.
- Day of the match is also considered.
- Teams taking part in each match are noted.
- Winner of each match is also considered.

Business Goals:

1. At which stadium does the seating reach full capacity during games involving which teams?
2. Find which team has scored more than 2000 runs, in the league.
3. Retrieve the top 3 teams with the highest fanbase
4. Provide a summary of the total ticket sales per team, including subtotals.
5. Find out the fans who are attending all the matches
6. Find out the average number of wickets within each team.
7. Identify the batsman or wicket-keeper with the highest run total in each team and who has achieved a score exceeding 200.
8. Determine the age group of adults with over 100 attendance at matches.
9. Generate a report showing the total number of tickets sold, subtotals by match location and stadium, and a grand total.
10. Which bowler has taken the maximum wickets in the league?
11. Which player who has scored the maximum runs in the league