PROJECT PHASE 3

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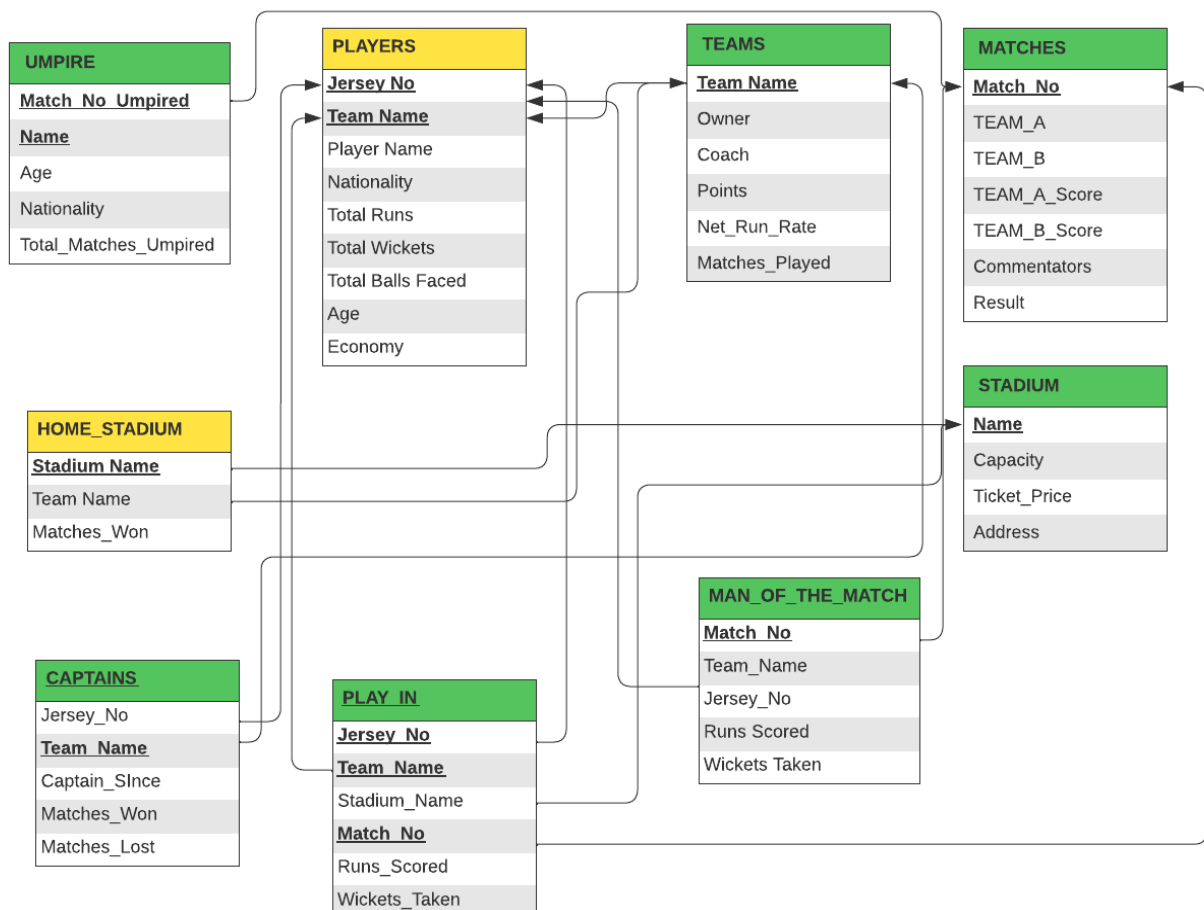Aman Raj(2021101064)
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IPL DATABASE

Conversion of ER diagram to Relational Model:-

We have constructed tables for Entities and their relations. According to Guideline 1, Entities and their relations are kept as far as possible. There is no separate table made for identifying relationships.

Assumptions:
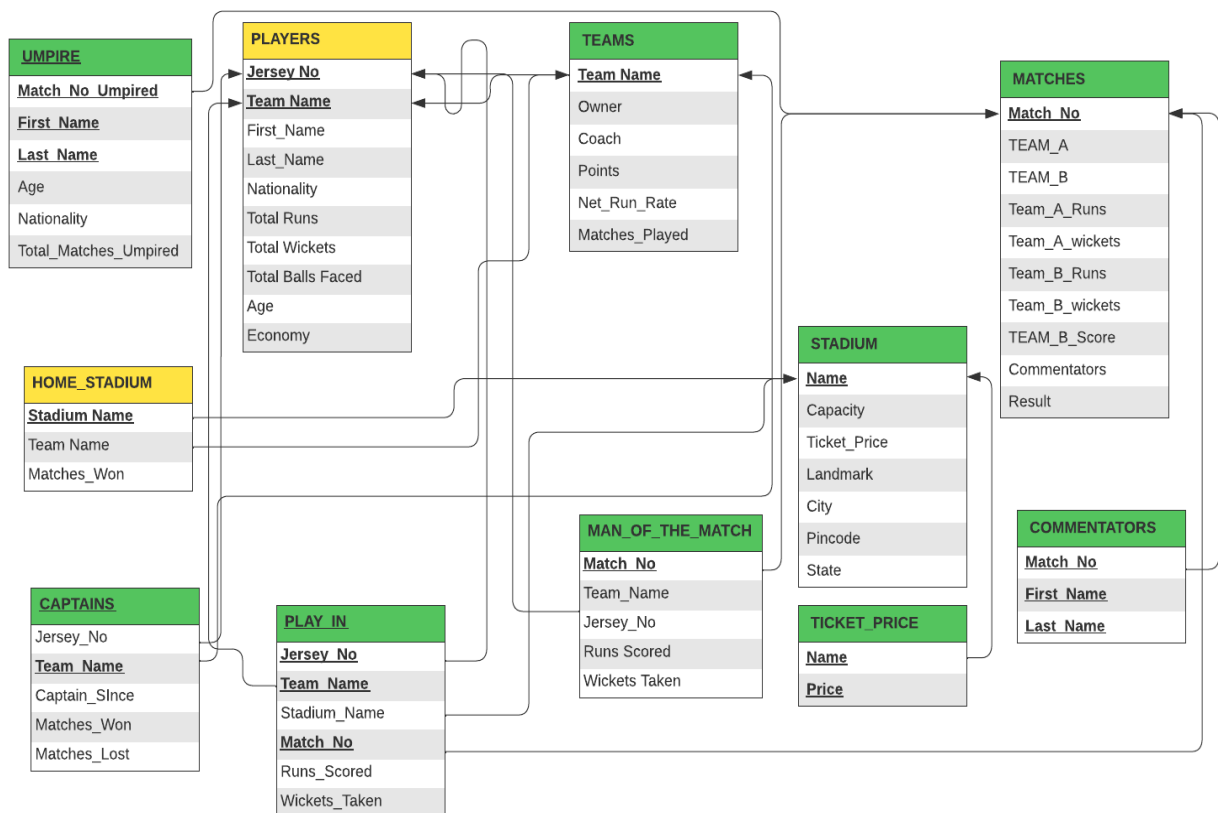- Primary or foreign keys having multiple attributes are represented with a single arrow between them.

Snapshot:

Conversion of Relational Model into 1NF:-

- we have broken the composite attributes into attributes having atomic values.
    1. Player_Name [Players]--->First_Name and Last_Name
    2. Team_A_Score [Match]--->Team_A_Runs and Team_A_wickets (same for Team_B_Score)
    3. Name [Umpires]--->First_Name and Last_Name
    4. Address [Stadium]--->Landmark, City, Pincode and State

- For multi-valued attribute , we make a new table and used the primary key of the original table as a foreign key as a reference to original table. We will also declare all the attributes taken together as a primary key for the new table.
    1. Commentators -> Commentators Table having Match_No as the foreign key to MATCHES table.
    2. Ticket_Price -> TICKET_PRICE Table having Name as the foreign key to STADIUM table.

Snapshot :

Conversion of Relational Model into 2NF:-

Most of our tables have only single primary attribute. So no non-prime attribute in the table would be partially dependent on primary key.
Thus, they are already in 2NF.

For tables having more than one primary attribute for example UMPIRES, PLAYERS, PLAY_IN, COMMENTATORS, TICKET_PRICE there is no non-prime attribute that is partially dependent on primary key.
So they are already in 2NF.'

Conversion of Relational Model into 3NF:-

In our tables, there is no transitive dependency of a non-prime attribute onto the primary key and there is no attribute which is fully functionaly dependent on any non-prime attribute.

So our model is already in 3NF.