**Cricket Database**

**Project Report**

**Team F**

Members:

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**Deliverable 1:**

**Description:**

Cricket is a complex sport with multiple facets, including players, teams, matches, venues, awards, umpires, commentators, coaches, captains, and physiotherapists. To manage this complexity, organizations have turned to databases to keep track of critical information. In this cricket league database, the primary entities are Player, Team, Venue, Match, Award, Umpire, Batting\_Stats, Bowling\_Stats, Fielding\_Stats, Commentator, Coach, Captain, and Physiotherapist.

Players aim to score runs by batting and taking wickets by bowling. Their performance is recorded in their respective Batting\_Stats, Bowling\_Stats, and Fielding\_Stats records, which track their performance in each Match they played. A Player can also receive multiple Awards in their career, and each Award can be given to multiple Players. Each Team has a Coach, a Captain, and a Physiotherapist. Coaches train the players and guide them on the field, while captains lead and strategize during the match. Physiotherapists attend to any player injuries during the match. A Coach can coach multiple Teams, a Captain can lead multiple Teams, and a Physiotherapist can work with multiple Teams.

Each Match is played between two Teams and is played at a particular Venue, with a unique Match\_id. Matches take place at specific venues, and a venue can host multiple matches. Matches are officiated by umpires, and live commentary and analysis are provided by commentators. A Match has a date when it is played, and it is either played or not played.

A Umpire can umpire many matches, and a Match can have multiple Umpires. A Match can also be commentated by one or more Commentators. A Commentator can commentate on many matches, and a Match can have multiple Commentators. Ground Staff are responsible for ensuring that the playing surface at each venue is in top condition, while umpires ensure that matches are played according to the rules.

Overall, this database tracks the performance of cricket players and their teams over time, including coaches, captains, and physiotherapists. It also tracks the umpires and commentators involved in matches and the awards given to players.

**Deliverable 2:**

**Entity Relationship Diagram:**

Diagram

Description automatically generated

**Deliverable 3:**

**Entities with all the attributes and Primary keys(PK) and Foreign Keys(FK)**

**1. Player:**

- player\_id (PK)

- Fname\_Player

- Lname\_Player

- birthdate

- Rating

- team\_name (FK)

**2. Team:**

- team\_name (PK)

- team\_rating

-team\_wins

-team\_loss

**3. Venue:**

- ground\_name(PK)

- city

- number of matches

**4. Match:**

- Match\_id (PK)

- Match\_played

-Match\_date

-Ground\_name (FK)

-Match\_Umpire\_ID (FK)

-Match\_commentator\_ID (FK)

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**5. Award**

- Award\_name (PK)

- Category

**6. Umpire:**

- Umpire\_id (PK)

- Fname\_Umpire

- Lname\_Umpire

-No\_of\_matches

**7. Batting\_Stats:**

- batting\_stats\_id (PK)

- player\_id (FK)

- runs\_scored

- fours

- sixes

- strike\_rate

**8. Bowling\_Stats:**

- bowling\_stats\_id (PK)

- player\_id (FK)

- overs\_bowled

- runs\_conceded

- wickets\_taken

- economy\_rate

**9. Fielding\_Stats:**

- fielding\_stats\_id (PK)

- player\_id (FK)

- catches

- run\_outs

- stumps

**10.Commentator**

- comm\_id

- Fname\_COMM

- Lname\_COMM

- Country

**11. Coach**

-Coach\_Id (PK)

-Fname\_Coach

-Lname\_Coach

- Team\_name (FK)

**12. Captain**

**-** Captain\_id (PK)

- Fname\_Captain

-Lname\_Captain

-Team\_id (FK)

**13. physiotheraphist**

**-**physio\_id (PK)

-Fname\_physio

-Lname\_Physio

-Team\_Id (FK)

**Bridging Entites:**

**Teams\_played:**

- Match\_id (FK)

- Team\_name (FK)

Teams\_Played\_id(PK) ?

**Player\_Award:**

-Player\_award\_id

-Award\_name (FK)

-Player\_id (FK)

**Umpire\_match:**

-Match\_id (FK)

-umpire\_id (FK)

-Match\_Umpire\_ID (Surogate\_key )(PK)

**Match\_Commentator:**

-comm\_ID(FK)

-Match\_ID(FK)

-Match\_commentator\_ID