

# **DBMS PROJECT AUTUMN 2019-20**

**Assigned by: Prof. P M JAT**



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## Database For Indian Premier League (IPL)

The Indian Premier League is a professional Twenty20 cricket league in India played during the course of March or April to May every year mainly by eight teams representing eight different cities/states in India.

### Scope of the database:

The database involves keeping records of different teams, players, matches played, captains, owners etc. This vast data generated in a tournament like this, could be analyzed and maintained efficiently using a database. Certain interesting facts and details about the players and teams can be visualized effectively from the database which would benefit the analyst, the teams in their analysis and even the public.

### Description:

The following database of IPL tournament contains relations or tables. It contains a table about the different **Teams** participating in the tournament like “Chennai Super Kings”, “Sunrisers Hyderabad” etc. Primarily there are 8 teams contesting the tournament, which are owned by various businessmen or film stars. Each team maintains a staff comprising of coach and physiotherapist to assist their teams. Relation **Auction** which will contain the details of auction which is conducted before every season where the teams buy players from all the cricket playing nations in the world who then play for their respective teams in that particular season. This is maintained in the relation **Players** which will have many attributes about the player like his type (Batsman, Bowler or All-Rounder), strike rate, batting

average, runs scored, bowling economy, wickets taken and various other stats based on the role. For example, if the team Chennai Super Kings (CSK) bought the player Mahendra Singh Dhoni, then he would play for that team in that season. We also maintain relation about the captain of each team as decided by the team members in a table called **Captains**.

The tournament is a round-robin type of a tournament where each team plays the other teams twice. This is recorded in the table **Matches** which consists of the two teams, the runs scored, number of wickets fallen, name of the winning team etc.

Every match would have 3 umpires overlooking the match. This is stored in the relation **Umpire** which has certain attributes like name of the umpire eg: Ian Gould, his native country and the number of international matches that he has umpired in his career.

Similarly we would have various other tables for other information like the points table in that season, the venue of where the matches took place, the man of the match for each match, statistics for the overall tournament like, the highest run scorers(Orange cap), the highest wicket taker(Purple Cap), most number of sixes and fours hit by the team, winning team and runner up team for each season. etc.

All these relations will help us in storing and managing the database easily and one can easily perform various operations on the database using any querying language.

### Sample Queries:

- 1). List the players participating in the tournament who are All-Rounders (Both batsman and bowler).
- 2). List the players from Chennai Super Kings who have a strike rate of above 120.
- 3). List the team name and number of times that team has won the tournament.
- 4). List the players who have scored more than 400 runs in any season of IPL.
- 5). List the player with the highest number of man of the match awards.
- 6). Percentage of matches won at home ground by particular team in particular year.
- 7). Statistics of a particular player si.e. his strike rate, his batting average, the number of wickets taken, number of man of the match awards etc.
- 8). List the highest valued players in auction every season of the IPL.
- 9). Total no. of sixes hit in every season of the IPL.
- 10). List the best fielder in every season of IPL (based on the no. of catches caught).