**PROJECT DESIGN REPORT**

**IPL (CRICKET LEAGUE) MANAGEMENT SYSTEM**

**Abstract:**

The project focusses on developing a database for IPL cricket league which is one of the biggest tournament in the world. There exists a system which stores details about the matches but fails to take minute details about players and their skills. The main purpose of this database management system is to hold information about everyone involved with the IPL. This database will help team owners to keep a record of matches, teams and players shinning in the tournament. This database plans eliminate administrative work and provide records and statistics of players.

**IPL (CRICKET LEAGUE) MANAGEMENT SYSTEM-Project Summary:**

The project focusses on developing a database for IPL cricket league which is one of the biggest tournament in the world. There exists a system which stores details about the matches but fails to take minute details about players and their skills. The main purpose of this database management system is to hold information about everyone involved with the IPL. This database will help team owners to keep a record of matches, teams and players shinning in the tournament. This database plans eliminate administrative work and provide records and statistics of players.

There are 10 teams participating in IPL tournament and each team has more than 30 players, so it’s difficult to keep track of each player. Each player has runs, wickets, matches played which makes it more complex to keep a note on each player. So without a database it will be very difficult to keep track of all of this data. A database will make it easier for the leagues to manage its information about its team, matches played between teams and players in their respective teams. Currently, there are organization who has details about players, but they haven’t computed the statistics. This database plan to optimize storage and provide the users with exact results and statistics.

**Proposed Solution:**

By designing this database project, I intend to provide my organization’s management a structured set of all the information necessary to store and market the results to maximize profits. This information will help the users to place safe bets, be interested in the league and book tickets for the matches as well. Through this project, I am going to provide my organization a database to efficiently record the personal details about the players. This database is also going to have the records of all the teams in the IPL which are planning to buy people of desired skill sets. For example, if the officials want to reward a player who scored the highest number of runs in that particular season, it will be easy for them to reward that player by retrieving his number of runs scored attribute from the database. Secondly, the officials can to insert or update the details about the day, date, time and location of the matches that are going to be played by different teams. Thirdly, league officials can assign administrators to add/modify/delete records of players, teams and much more. Lastly, this data will be available to the idetails of the matches that are going to be played by their favorite teams. The fans can also purchase merchandise based on the performance of their favorite team or player. For example, if Virat Kohli (Player) scores the most number of runs in 2018 for his club, the sales of his jersey for his particular team for that particular year will be higher than the previous year where he was not the top run getter.

So, illustrating the main functions of proposed system:

* Acquire and store the information about teams who are looking for buying players of desired skill.
* Acquire and store the information about players who are looking to play in IPL.
* Acquire the details of matches, stadium and officials.
* A database that records different statistics of players and team

**Entities and Attributes Table:**

|  |  |
| --- | --- |
| **Data object** | **Explanation** |
| **League** | **It stores information about the league.** |
| League\_ID (PK) | Unique ID to identify the kind of league |
| League\_Name | It states the name of the league |
| League\_Country | It describes the country in which the league is being played |
| **Team** | **It stores information about the team** |
| Team\_ID (PK) | It should be unique |
| League\_ID (FK) | It’s a foreign key which describes about which team belongs to which league. |
| Team\_Name | It holds the name of the team |
| Stadium\_ID (FK) | It’s a foreign key which holds information about which stadium belongs to which team |
| Team\_Points | Number of points the team has earned in the tournament |
| Team\_Standing | Rank of the team in the tournament |
| Team\_HomeWins | Number of home wins of the team |
| Team\_HomeDefeats | Number of home loses of the team |
| Team\_HomeTie | Number of home ties of the team |
| Team\_AwayWins | Number of away wins of the team |
| Team\_AwayDefeats | Number of away loses of the team |
| Team\_AwayDraws | Number of away ties of the team |
| **Player** | It holds information about the players |
| Player\_ID (PK) | It should be unique |
| Player\_Name | It stores the name of the player |
| Player\_Age | It stores the age of the player |
| Team\_ID (FK ) | It’s a foreign key which holds information about which player belongs to which team |
| Player\_Position | It stores the position of player in the team(eg: captain, bowler, batsman) |
| Runs\_Scored | Number of runs scored by a player |
| Wickets\_Taken | Number of wickets taken by a player |
| Catches\_Taken | Number of catches taken by a player |
| Run\_Outs | Number of run outs by a player |
| Matches\_Played | Number of games played y a team |
| Contract\_StartDate | Contract start date of a player |
| MOM | Number of awards |
| **Coach** | **It holds information about the player** |
| Coach\_ID (PK) | It should be unique |
| Coach\_Name | It holds the name of the coach |
| Coach\_Experience | It holds number of years of coaching |
| Team\_ID (FK) | It’s a foreign key which holds information about the team the coach is coaching |
| Matches\_Coached | Number of games coached |
| Matches\_Won | Number of games won under his coaching |
| Matches\_Lost | Number of games lost under his coaching |
| Matches\_Drawn | Number of games drawn under his coaching |
| **Stadium** | **It holds information about the stadium** |
| Stadium\_ID (PK) | It must be unique |
| Stadium\_Name | It holds the name of the stadium |
| Stadium\_Location | It holds the location of the stadium |
| Team\_ID (FK) | It’s a foreign key which holds the information of the home stadium of a team |
| Matches\_Played | Number of games played at the stadium |
| **Match** | **It holds information about a particular match** |
| Match\_ID (PK) | It must be unique |
| Home\_TeamID (FK) | It’s a foreign key and holds the information about the home team playing the match |
| Away\_TeamID (FK) | It’s a foreign key and it holds the information about the away team playing the match |
| Match\_Date | It hold the date at which the match was played |
| Match\_Time | It holds the timing of the match played |
| Stadium\_ID(FK) | It’s a foreign key and holds information about the stadium at which it’s played |
| Home\_Score | It holds information about the home score |
| Away\_Score | It holds information about the away score |

**RELATIONAL DATA MODELS:**



**BUSINESS RULES:**

• A TEAM can only be a part of one and only one league.

• A player can only play for one and only one TEAM

• A TEAM must have one and only one COACH

• A COACH can only COACH one TEAM

• A TEAM must have one and only one STADIUM.

• A STADIUM must belong to one and only one TEAM.

• A match is played between 2 teams only.

• A match must be played on one and only one stadium.

• A match must have 22 players.

• A player can only player 1 match on a particular day, date and time.

**Major Data Questions:**

**WHO ARE THE USERS:**

1.ADMINISTRATOR

2. TEAM OWNER

3. FANS

FUNCTIONS:

1. ADMINISTRATOR is responsible for maintaining and manipulating data into the database. He performs operations like data insertion, updating and deletion. He performs query operations and outputs the result to be visualized which then can be used by team owners and fans.
2. TEAM OWNER: TEAM OWNER cannot manipulate data in the database. Team owner is the passive user. He gets to see the end result of visualized data and make key decisions.
3. FANS: Fans are passive users. They do not access the database but can see statistics like highest run scorer.

In my database fans and owner will like to see the statistics of various players. So here administrator will already query the data thus giving brief details team leader, highest point, scores, runs ,wickets.

**FINAL GRADE**