

IT 214 - Database Management System

Group Project Proposal



Title : Database for keeping records of cricket

Group Members:

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Database Scope:

This project is similar to the way CricBuzz. It can be used by any cricket organizations as it records the details of all the players' information, matches and statistics of particular player as well as a team, stadium where the match is going on and also manages all the activities concerned to the Cricket.

Database Description:

Main objective of this database project is to automate the existing method of managing data and statistics of Cricket manually to the systematic storage of data, which can be searched at any time when required.

We will store all players information uniquely by making their global_id. For that we will store first two char as country and then next 6 digit for player, Just like '01' for England, '02' for Australia, '03' for India and so on.. Mostly we will have unique id for all entities like player, match, country, team, coach, umpire, stadium, result, match statistics.

Here, we have three formats of the cricket matches, so we will have entity of Match_format as Test-match, ODI-match and T20-match format.

Below are some attributes of our database entities shown, which will give the broad idea of keeping database for this project.

- **Players** : We will record global_id, name, DoB, place, height, role, batting-style, bowling-style, rank, team_id.
- **Team** : We will record team_id, country, coach_id, player_id.
- **Coach** : It consists of details like coach_name, coach_duration, coach_role.

- **Match statistics** : Will have all the details for all the matches like date, target, player_wise_runs , wickets, commentary snippets.
- **Results** : Will have result_id, match_format, match_id, team details, result status, date.
- **MatchHighlights** : Will includes all match_id, match_format, sixes, boundaries, wickets, player achievements (half century, century, hattrick, etc). All will have precision with over and balls.
- **Umpire** : Will have details of name, id and country.
- **Ranking** : will have two subparts Batsman and Bowlers as follows,
 - a. **Batsman** : We will have match_format, player_id, innings, runs, balls, highest, average, strike_rate, notout, boundaries, sixes, centuries, half centuries.
 - b. **Bowlers** : We will have match_format, player_id, innings, wickets, balls, runs, maiden, average, economy, 5_wickets, best_figure.

Following are some queries, the system is expected to answer:

1. Retrieve all players of Indian Team having Runs ≥ 10000 in Tests.
2. Retrieve all batsman having 5 or more centuries in a single calendar year.
3. List all the details of MatchHighlights played in India.
4. Retrieve the top 10 rankings of Bowlers and Batsmen.
5. Retrieve the name of Umpire when 'Sachin Tendulkar' was dismissed at 99 runs across all formats.
6. Retrieve the name of player who took hattrick, along with the information of Results and MatchHighlights.
7. For each wicket taken by 'Dale Steyn', retrieve the batsman name, umpire name and match id.
8. List the information of all the bowlers taken 200 or more wickets across all the formats.