Cricket League Management System

DATA BASE SYSTEM

Introduction

- In this presentation, we will explore the objectives, features, and benefits of the Cricket League DBMS, as well as its system architecture. We will delve into the various functionalities it offers, including player and team management, match scheduling, live score updates, analytics, and reporting. By implementing this DBMS, cricket leagues can streamline their operations, make informed decisions, and engage with fans in innovative ways.
- The Cricket League DBMS is not just a simple database; it is a powerful tool that revolutionizes how cricket leagues are managed, bringing efficiency, accuracy, and improved decision-making to the forefront. By leveraging technology, we can enhance the overall experience for players, teams, administrators, and fans alike.

Use of CLMS

The Cricket League Database Management System provides the following uses:

1. Centralized Data Management: It serves as a centralized repository for player, team, and match-related information.

2. Player and Team Management: The system simplifies player and team management tasks.

3. Match Scheduling and Management: It automates the process of creating and managing match schedules.

Why We Build This Database

- The Cricket League Database Management System is built to address several key reasons. It ensures efficient data organization by centralizing vast amounts of player, team, and match-related information. This eliminates the need for manual paperwork and data duplication.
- One of the primary goals of building this database is to enable data-driven decision making. By collecting and analyzing data on player performance, team statistics, and historical records, cricket league administrators can make informed decisions.

Benefits

Here are the key benefits of the Cricket League Database Management System in

- Efficient data management and organization.
- Improved decision making based on comprehensive player and team data.
- Streamlined administrative tasks and reduced paperwork.
- Real-time updates and notifications for fans.
- Powerful data analysis.
- Accessible from anywhere with a cloud-based infrastructure.

Tables

1. **Country**: Stores information about different countries.
2. **City**: Contains data related to cities, including their associated country.
3. **Stadium:** Stores details about stadiums, including their name, hosting date, and associated city.
4. **Team:** Stores information about cricket teams, including their name and home stadium.
5. **Player:** Contains data about cricket players, including their name, date of birth, playing style, and team affiliation.
6. **UMPIRE:** Contains the information of umpires.

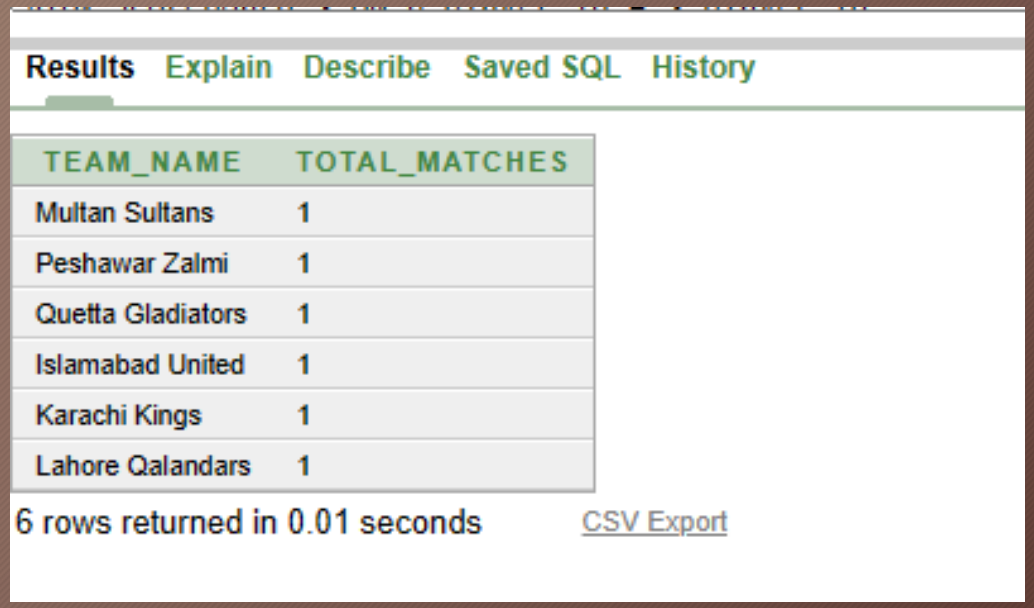
TABLES

- COUNTRY
- UMPIRED BY
- MATCHES
- STADIUM
- PLAYER
- TEAMS
- SCOREBOARD
- COACH
- CAPTAIN
- WICKET_KEEPER

Some Advance Quries

Retrieve the total number of matches played by each team:

```
SELECT t.team_name, COUNT(*) AS total_matches
FROM TEAM t
JOIN matchs m ON t.team_id = m.team_1 OR t.team_id
= m.team_2
GROUP BY t.team_name;
```



Results Explain Describe Saved SQL History

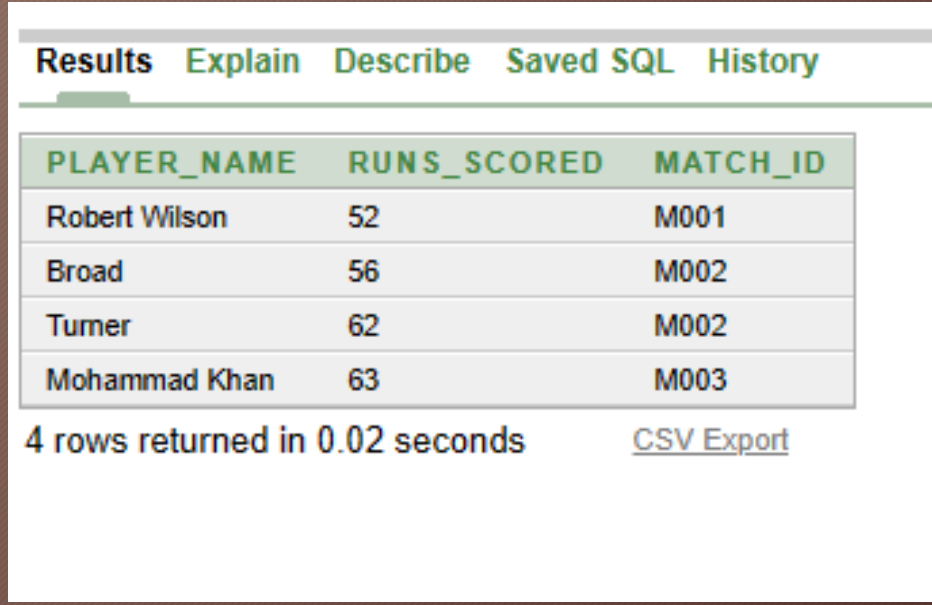
TEAM_NAME	TOTAL_MATCHES
Multan Sultans	1
Peshawar Zalmi	1
Quetta Gladiators	1
Islamabad United	1
Karachi Kings	1
Lahore Qalandars	1

6 rows returned in 0.01 seconds CSV Export

ADVANCE QURIES

Retrieve all players who have scored more than 50 runs in a match:

```
SELECT p.player_name, s.runs_scored, s.match_id
FROM PLAYER p
JOIN Scoreboard s ON p.player_id = s.player_id
WHERE s.runs_scored > 50;
```



Results | Explain | Describe | Saved SQL | History

PLAYER_NAME	RUNS_SCORED	MATCH_ID
Robert Wilson	52	M001
Broad	56	M002
Turner	62	M002
Mohammad Khan	63	M003

4 rows returned in 0.02 seconds CSV Export

Retrieve the names of all coaches and their respective teams:

```
SELECT c.coach_name, t.team_name
FROM COACH c
JOIN TEAM t ON c.team_id = t.team_id;
```

Results Explain Describe Saved SQL History

COACH_NAME	TEAM_NAME
John Doe	Islamabad United
Jane Smith	Lahore Qalandars
Michael Johnson	Karachi Kings
Sarah Adams	Multan Sultans
Robert Brown	Peshawar Zalmi
Emily Davis	Quetta Gladiators

6 rows returned in 0.00 seconds CSV Export

Retrieve the average runs scored by each player in all matches:

```
SELECT p.player_name, AVG(s.runs_scored)
AS average_runs
FROM PLAYER p
JOIN Scoreboard s ON p.player_id =
s.player_id
GROUP BY p.player_name;
```

PLAYER_NAME	AVERAGE_RUNS
Joseph Roberts	19
Turner	62
Christopher Lewis	19
William Evans	13
Daniel Harris	8
Matthew Thompson	37
Andrew Clark	42
HAFIZA	9
Shaheen Afridi	22
Mohammad Khan	63
David Johnson	34
Christopher Lee	27
Broad	56
Imad Wasim	12
Joshua Hill	39
William Thompson	34
Thomas Harris	8
Babar Azam	14
Saeed Ahmed	12
Ali Raza	48
Harris	33
Shadab Khan	7
Fakhar Zaman	31
Nadeem Khan	25
Ali Ahmed	21
Ahmed Raza	8
Michael Brown	19
Samuel Turner	37
Hasan Ali	39
William Turner	13

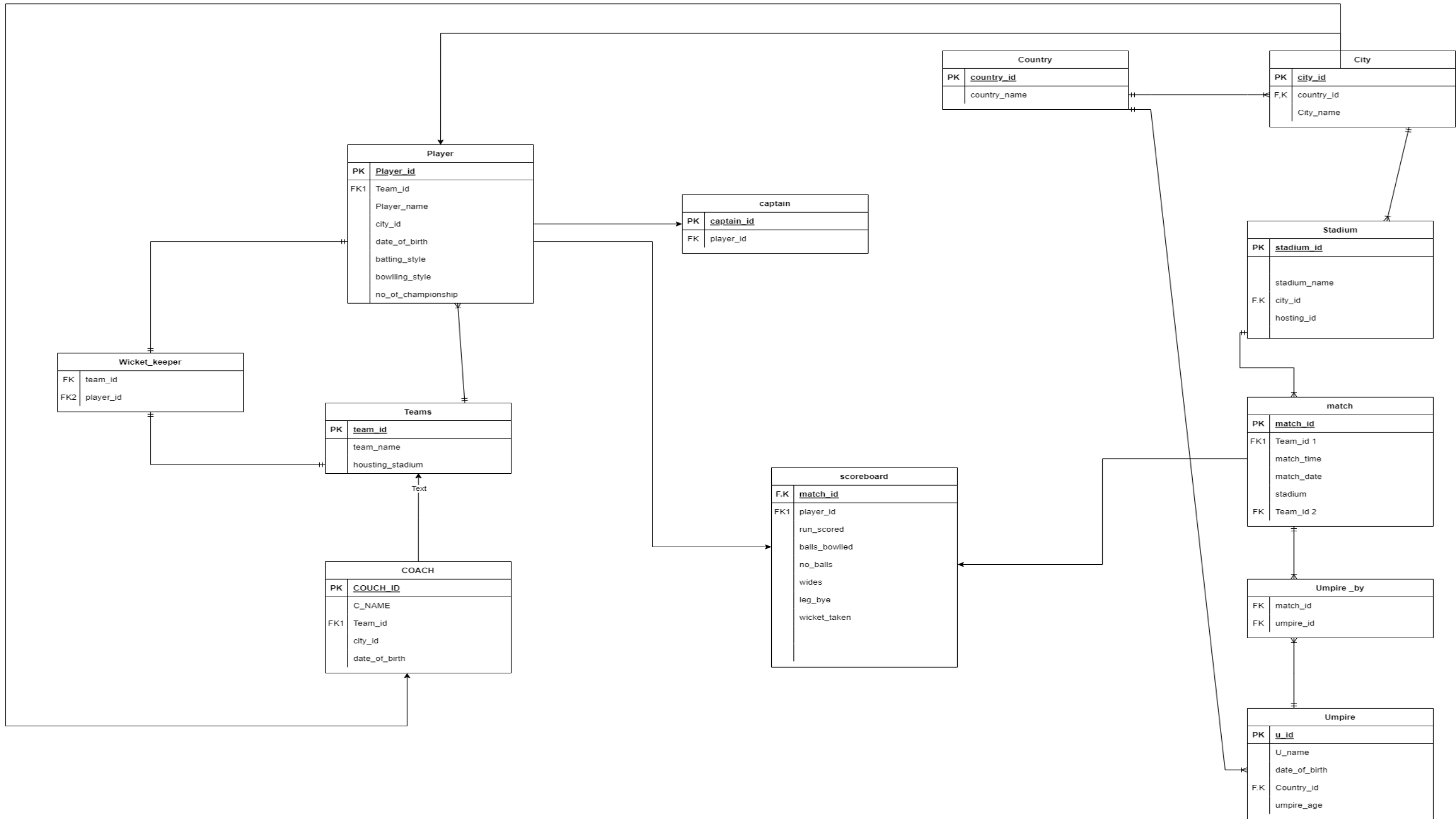
More than 30 rows available. Increase rows selector to view more rows.

ALL ROUNDERS OF ALL TEAMS

```
SELECT p.player_id, p.player_name, t.team_name, AVG(s.runs_scored)
AS average_runs, AVG(s.wickets_taken) AS average_wickets
FROM Player p
JOIN Team t ON p.team_id = t.team_id
JOIN Scoreboard s ON p.player_id = s.player_id
GROUP BY p.player_id, p.player_name, t.team_name
HAVING AVG(s.runs_scored) > 0 AND AVG(s.wickets_taken) > 0
ORDER BY (AVG(s.runs_scored) + AVG(s.wickets_taken)) DESC;
```

Results | Explain | Describe | Saved SQL | History

PLAYER_ID	PLAYER_NAME	TEAM_NAME	AVERAGE_RUNS	AVERAGE_WICKETS
P0010	Robert Wilson	Lahore Qalandars	52	1
P043	Usman Khan	Quetta Gladiators	36	1
P035	Imran Ali	Peshawar Zalmi	34	1
P026	Shaheen Afridi	Multan Sultans	22	1
P008	William Turner	Islamabad United	13	2


Country
PK country_id
country_name
City
PK city_id
F,K country_id
City_name
Player
PK Player_id
FK1 Team_id
Player_name
city_id
date_of_birth
batting_style
bowlling_style
no_of_championship
captain
PK captain_id
FK player_id
Stadium
PK stadium_id
stadium_name
F.K city_id
hosting_id
Wicket_keeper
FK team_id
FK2 player_id
Teams
PK team_id
team_name
housting_stadium
Text
match
PK match_id
FK1 Team_id 1
match_time
match_date
stadium
FK Team_id 2
scoreboard
F.K match_id
FK1 player_id
run_scored
balls_bowlled
no_balls
wides
leg_bye
wicket_taken
COACH
PK COUCH_ID
C_NAME
FK1 Team_id
city_id
date_of_birth
Umpire _by
FK match_id
FK umpire_id
Umpire
PK u_id
U_name
date_of_birth
F.K Country_id
umpire_age

THANK YOU