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IDB Project Report

“Cricket Team Management System Portal”

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Abstract:

The Cricket Team Management System is a comprehensive database application designed specifically for university cricket team administrators. The objective of this project is to streamline and enhance the management and organization of cricket teams by providing efficient tools for managing team details, player personal information, match scheduling, and performance analysis. The system aims to optimize the administrative workflow, improve team performance, and enhance the overall cricketing experience by centralizing all the information about the team and the players.

This project report presents the development and implementation of the Cricket Team Management System, highlighting its key features and benefits for university cricket teams. The system allows administrators to efficiently manage team details, including player personal information such as capabilities in team, age, and position within the team. It also enables administrators to schedule and manage matches, record match details, and analyze player performance through statistical analysis.

By utilizing this system, university cricket team administrators can streamline their administrative processes, improve decision-making based on data-driven insights, enhance communication within the team, and ultimately optimize team performance. The Cricket Team Management System offers a user-friendly interface, efficient data storage and retrieval, and robust security measures to ensure the confidentiality and integrity of team information.

Overall, the implementation of the Cricket Team Management System brings numerous benefits to university cricket teams, providing a comprehensive solution for efficient team management, improved communication, and enhanced performance analysis. The system serves as a valuable tool for administrators to effectively manage their teams, make informed decisions, and foster a positive cricketing experience for all team members.

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Chapter 1: Introduction

The Cricket Team Management System is a database application designed exclusively for university cricket team administrators. It serves as a centralized platform to streamline and enhance the management and organization of cricket teams. The primary goal of this project is to develop an efficient tool that empowers administrators to effectively manage team details, player personal information, match scheduling, and performance analysis. One of the key features of this system is its ability to handle data manipulation operations, including the **insertion, updating**, **and deletion of data.** This capability allows administrators to easily add new player profiles, update existing information, and remove outdated records as needed, ensuring that the system remains up-to-date and accurate. By providing these essential data management functionalities, the Cricket Team Management System offers a comprehensive solution to cater to the dynamic and evolving needs of university cricket teams**.**

1.1 Background

After introducing our management system the first thing we will discuss about is a little background that how creating this management system was the need of our university ,as sports specially cricket plays very important role when it comes to the importance of sports and spirits among the students but when it comes to managing the data normally there isn't any such kind of management systems for the cricket teams in the university as it is the most ignored need so we thought that this must be a great idea to develop a management system for university's team so that it help to save a lot of extra effort and time and all the record about the team and player can be arranged and accessed so effectively that the team performance and details everything is perfectly analyzed and the upgradation in system help team to get rid of this issue and they only focus on the strategies to win .

1.2 Objectives

The main goals that the user must be able to add the information related to the players, team, coach and matches and he needs to change any information in the record he can change by

using the edit option and the out dated information should also be deleted from the data stored, the main objectives of our project are:

1. The manager of the cricket team will be able to login onto the website where he/she can manage and observe all the information related to the cricket team.
2. The manager will be able to view the team name, its captain and its statistics (wins, losses and ranking). He/she will also be able to update the team name and the captain of the team, and the total wins and losses.
3. The manager will be able to view all the players of the team, their information and their individual statistics. He/she will be able to update the order or positioning of the players in the team and also update their individual statistics (according to their type) such as their total runs, high scores, wickets taken etc.
4. The manager will be able to view all the matches' details i.e. where the match is taking place, its date and time and the opponent.
5. The manager will be able to view the information related to the coach such as the current and previous coaches, their personal information and their salaries. He will also be able to update the salary and the status of the coaches (whether they are active or retired).

1.3 List of Deliverables:

- Database creation with system setup and storage of data.
- Website design and user-interface design (login screen etc.) for team manager.

1.4 Components:

The project will contain the following components:

1.4.1 Entity-Relationship Diagram:

A detailed ERD will be presented which will contain all the entities, their attributes and the relationships between them. This ERD will also help explain the multiplicity.

1.4.2 Front-end:

In the front-end, HTML and CSS will be used to design and style the web pages (login page etc.) in the user-interface.

1.4.3 Back-end:

In the back-end, MySQL will be used to create the database and its related functionalities. PHP will be used to perform Database Connectivity with HTML. In some parts, scripts have also been used.

Chapter 2: Entity Relation Diagram

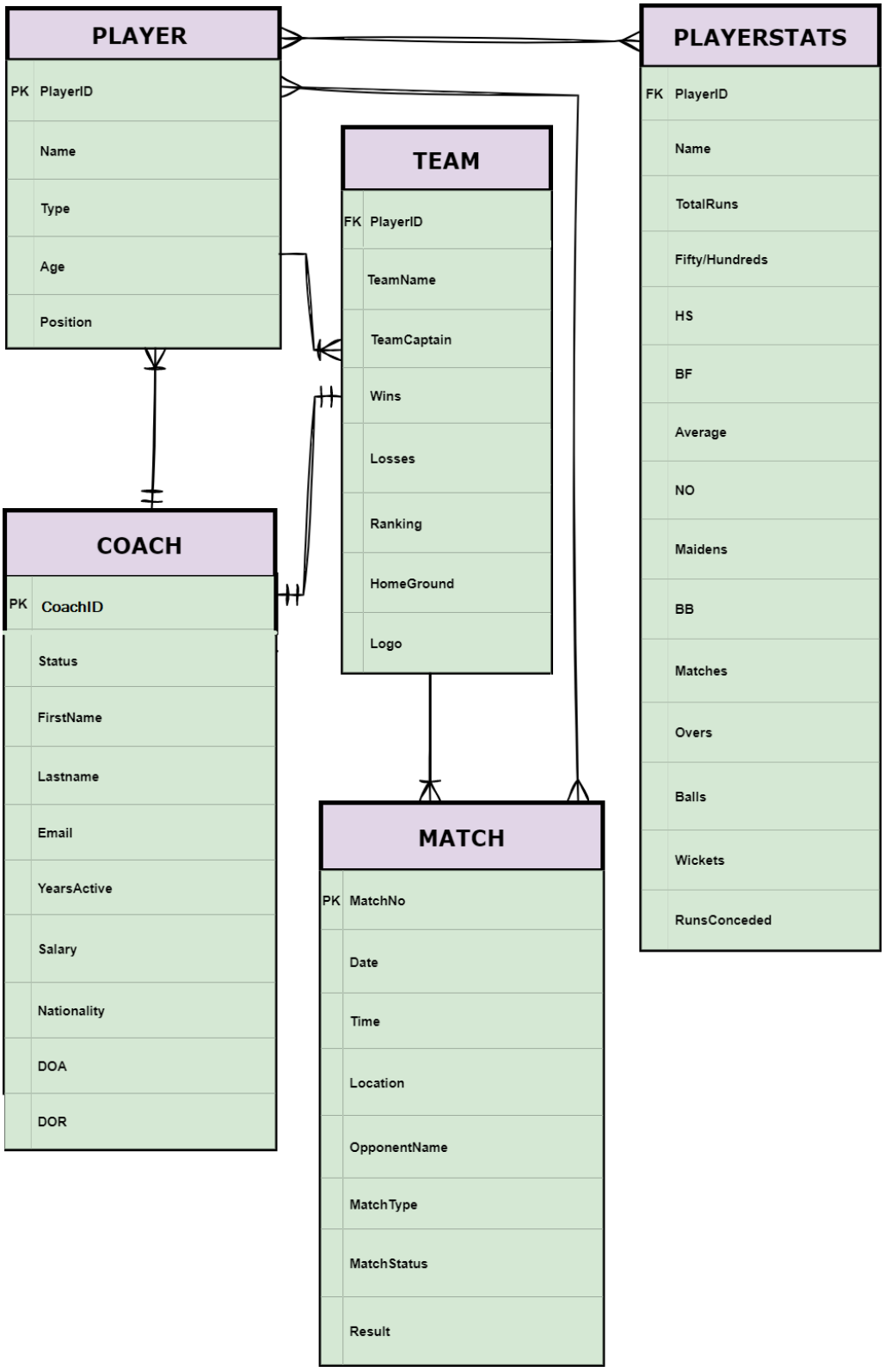
2.1 Technology Used

2.2 Entities:

The following entities and their attributes will be included in the cricket team management system:

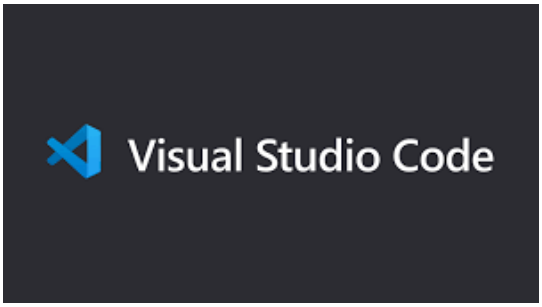
1. **Player:** Name, Age, Type, Position and ID. Each player will have a unique player ID.
2. **Match:** MatchNo, Date, Time, OpponentName, Location, MatchStatus, MatchType and Result.
3. **Team:** TeamName, the Logo, the TeamCaptain, its HomeGround, Wins, Losses, Ranking.
4. **Coach:** FirstName, LastName, Email, YearsActive, Status, Nationality, DOA, DOR and Salary.
5. **PlayerStats:** Matches, TotalRuns, 50s/100s, HS, NO, Average, BF, Wickets, BB, Balls, Overs, RunsConceded and Maidens.

2.2 ER-Diagram



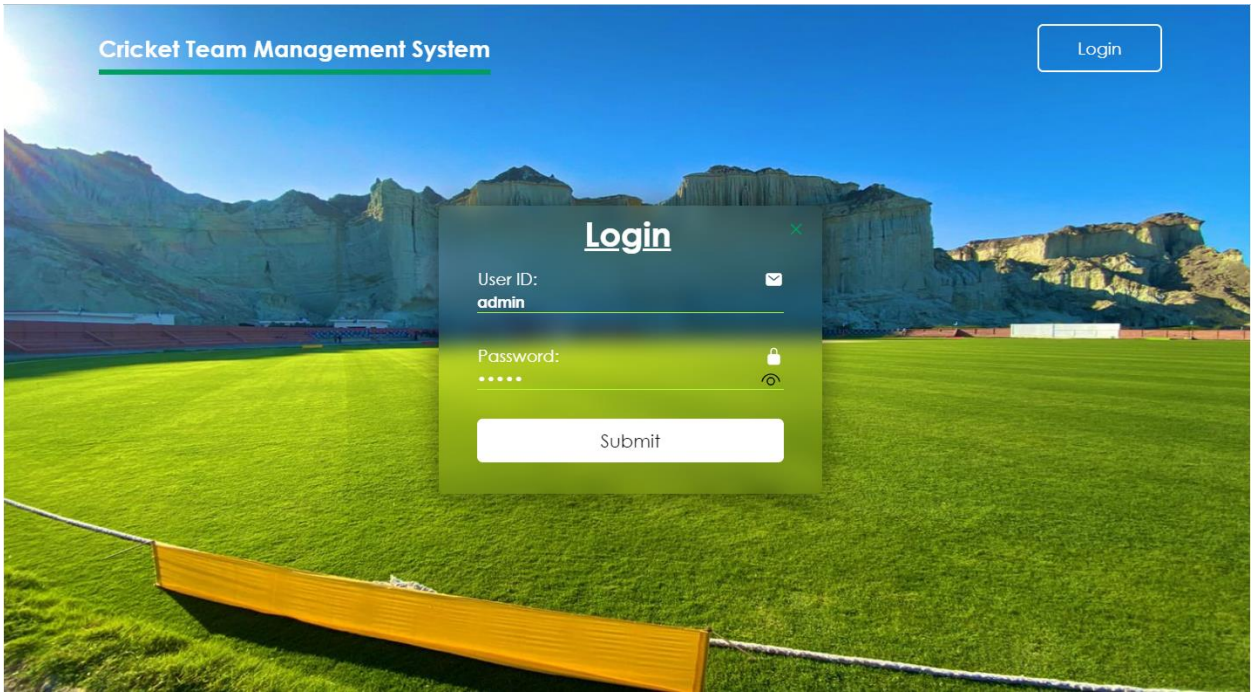
Chapter 3: Front-End

3.1 Technology Used

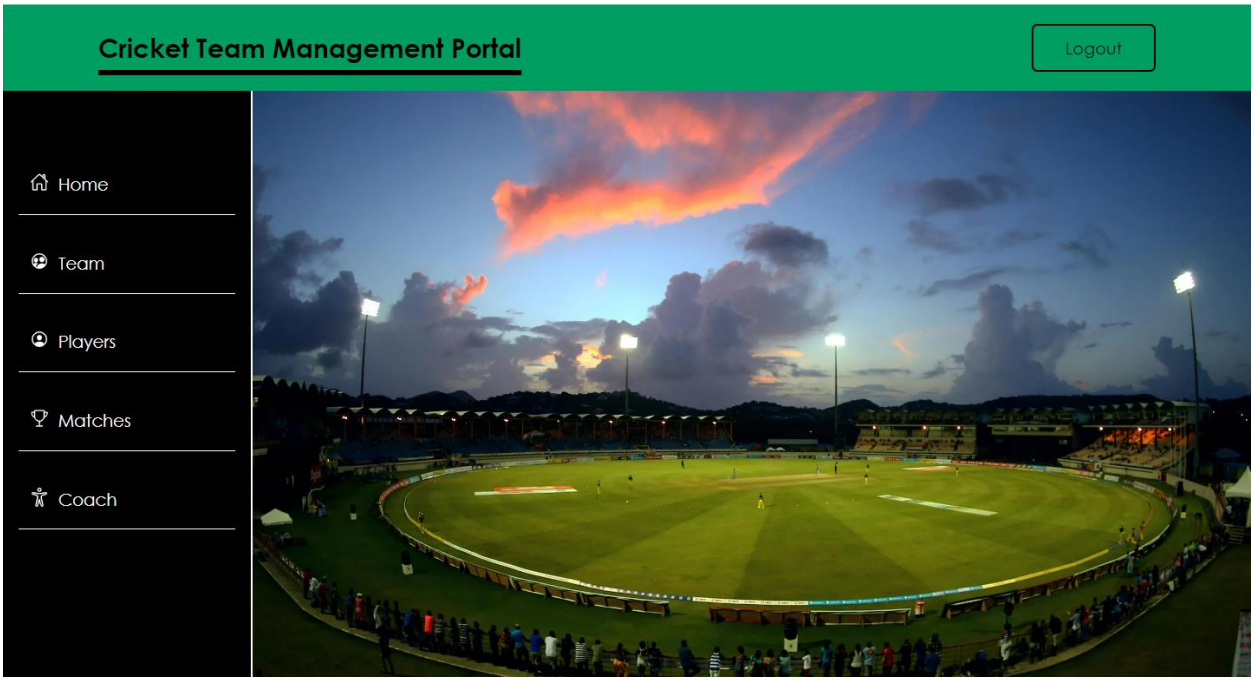


3.2 Functional Description

Login Page:

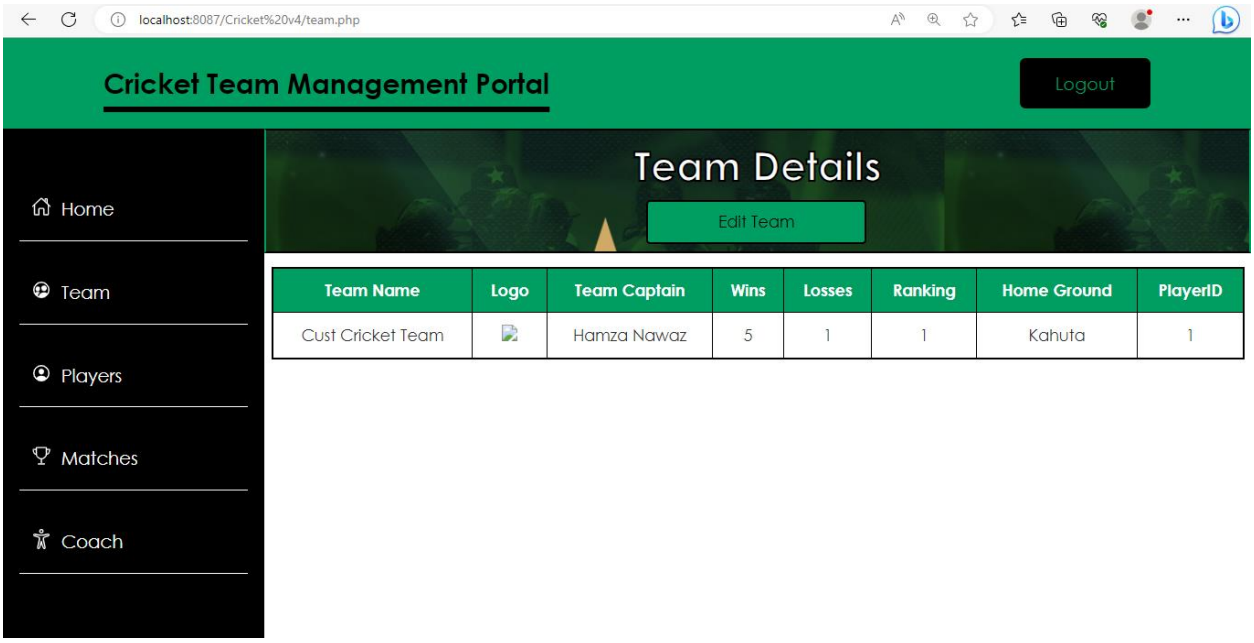


Home Page:

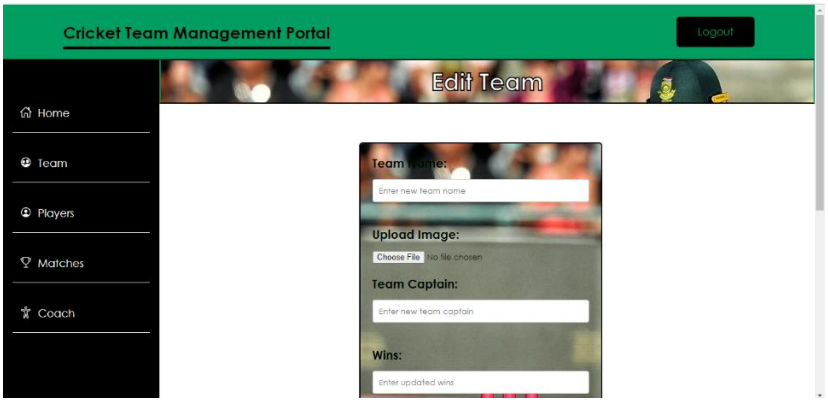


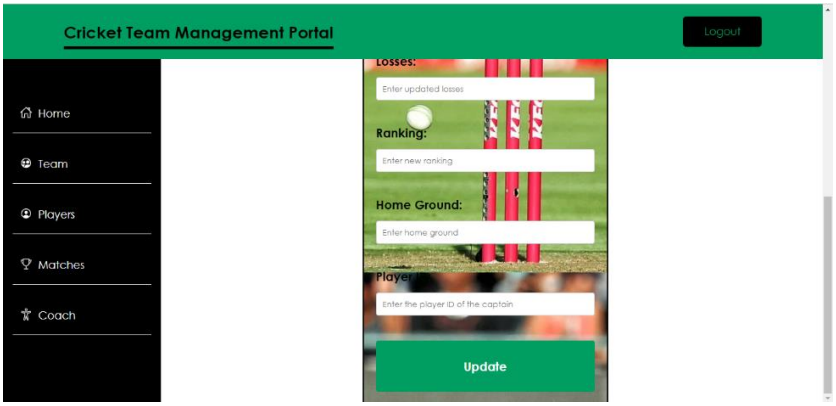
Entity Pages:

Team Page:

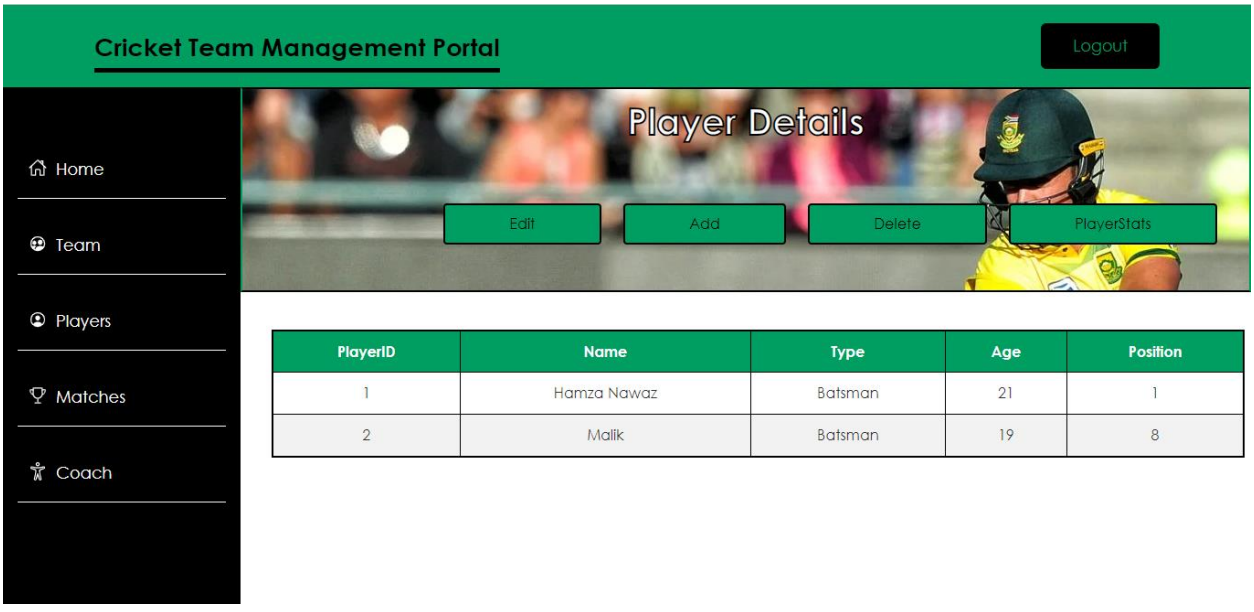


It further contains the edit team page:



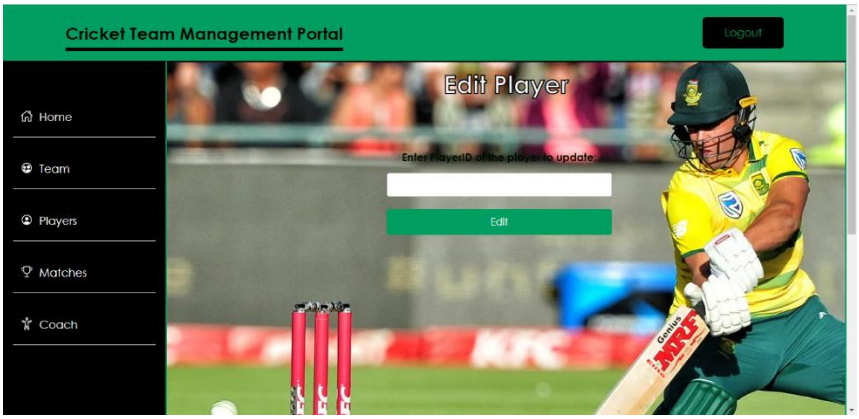


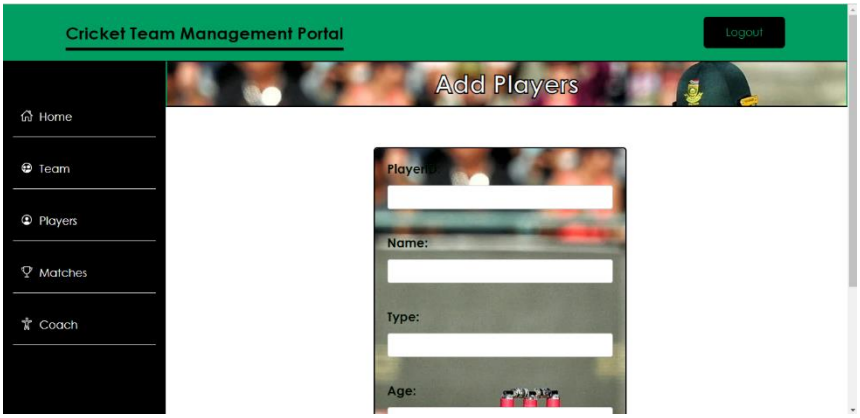
Player Page:

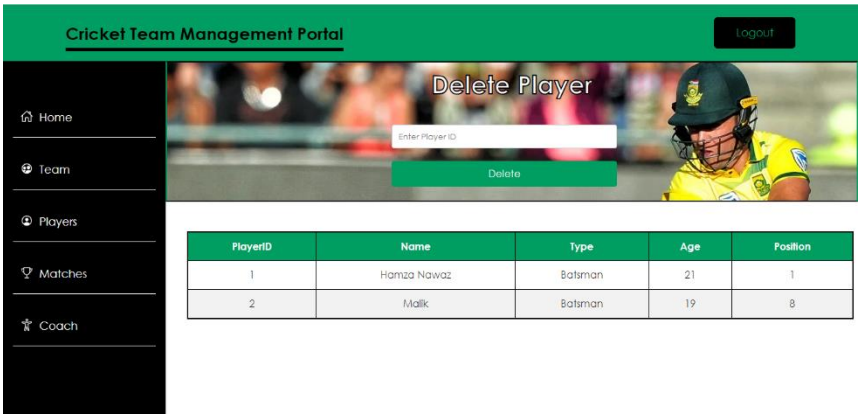


PlayerID	Name	Type	Age	Position
1	Hamza Nawaz	Batsman	21	1
2	Malik	Batsman	19	8

This page further has:

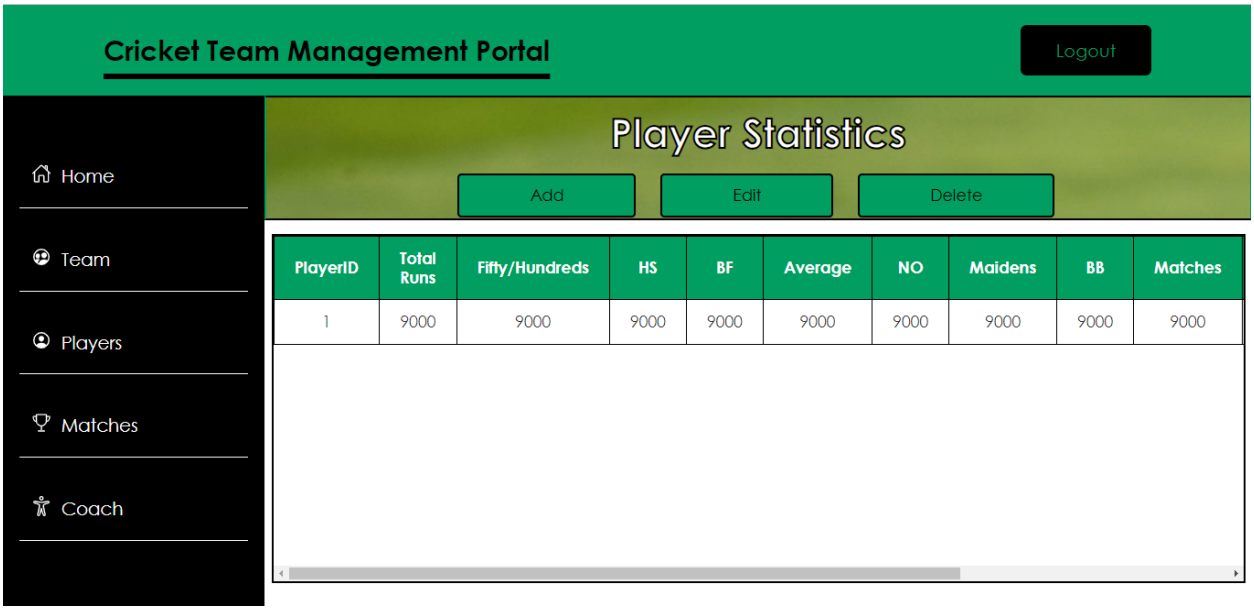




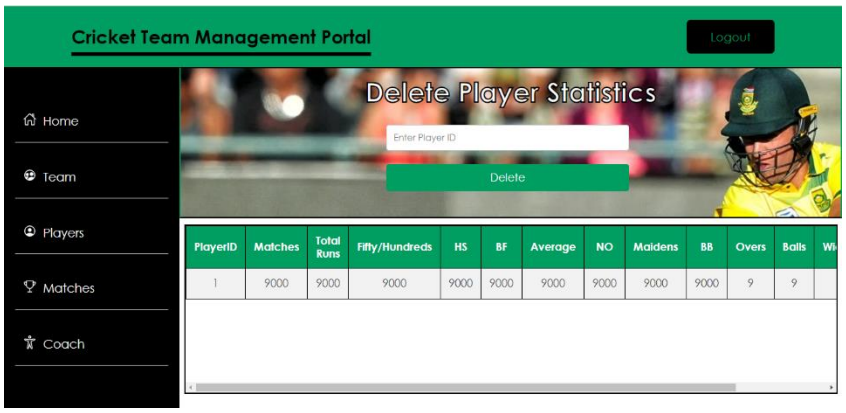


PlayerID	Name	Type	Age	Position
1	Hamza Nawaz	Batsman	21	1
2	Malik	Batsman	19	8

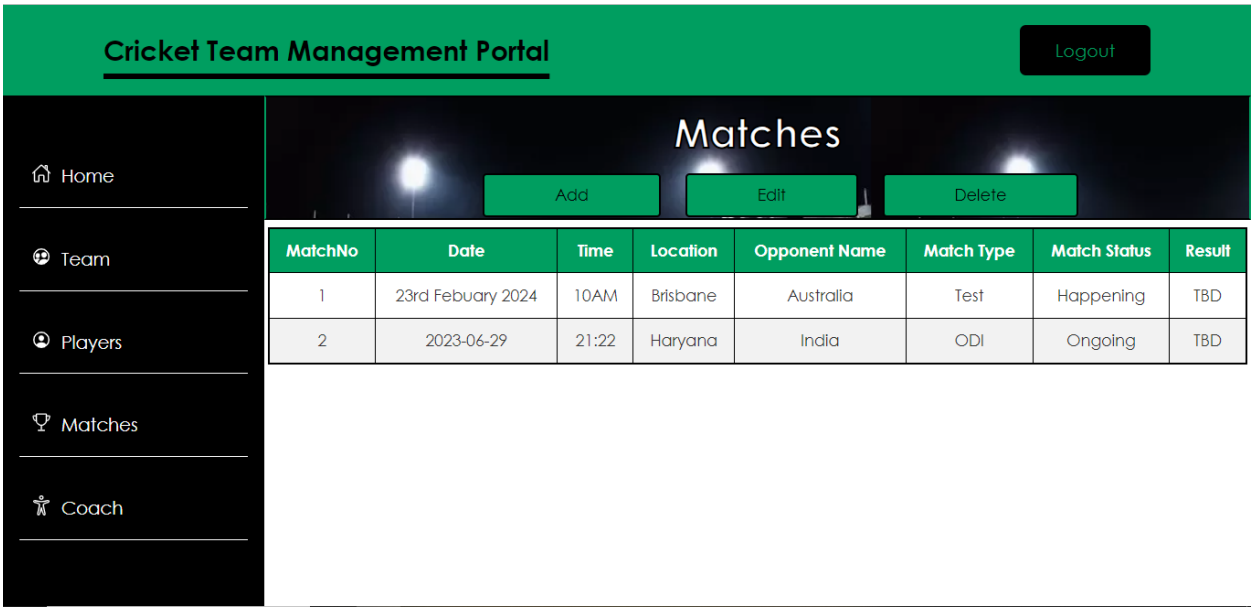
PlayerStats Page:



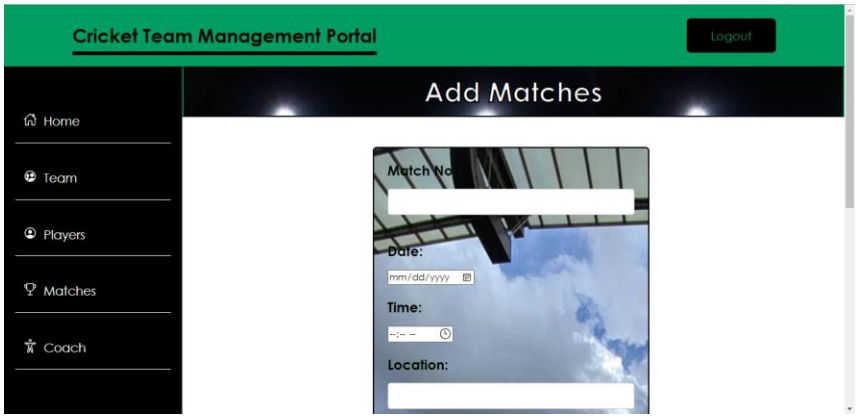
The PlayerStats page further contains 3 pages:

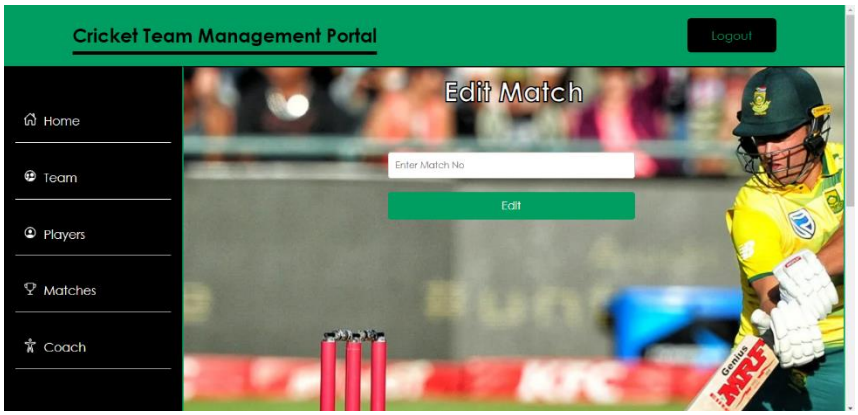


Matches Page:



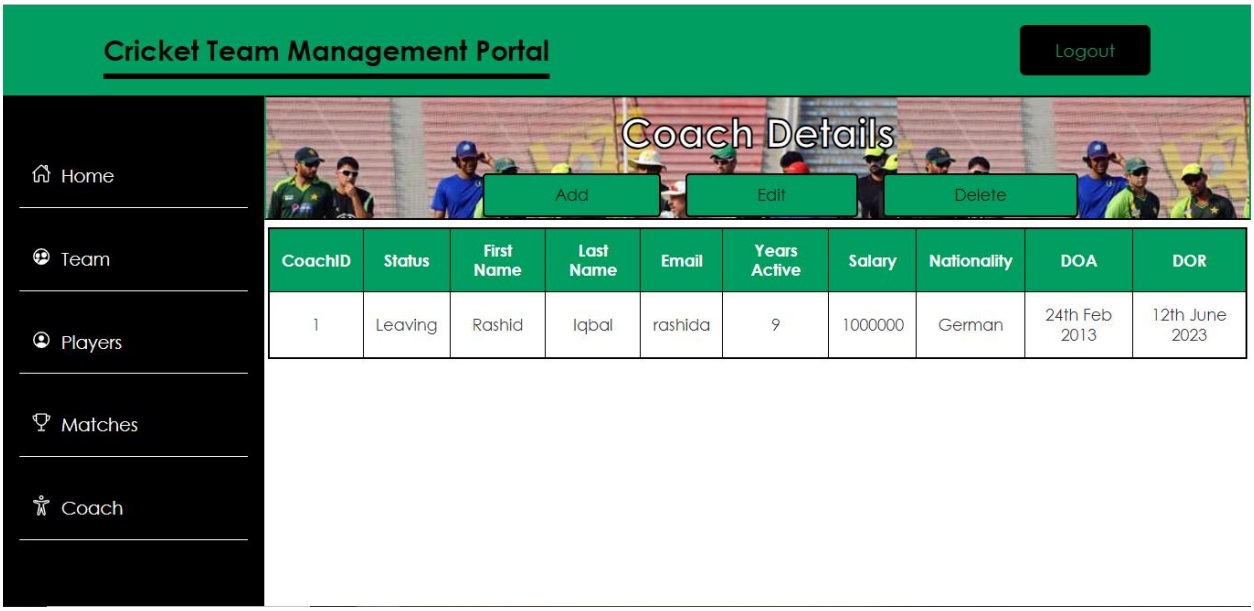
This further contains:





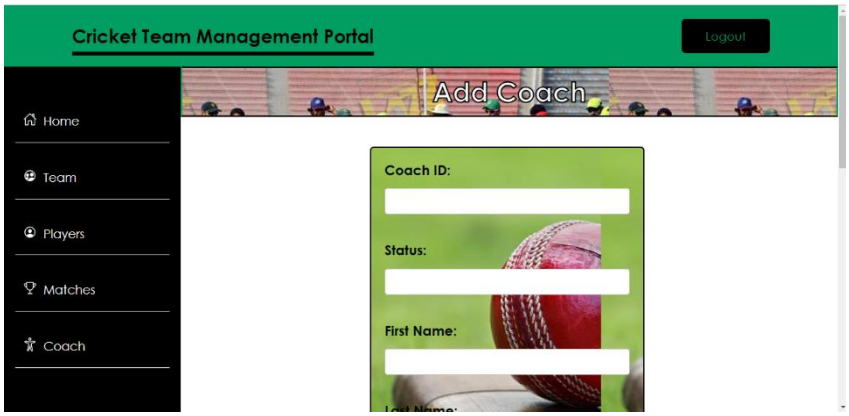
MatchNo	Date	Time	Location	Opponent Name	Match Type	Match Status	Result
1	23rd Febuary 2024	10AM	Brisbane	Australia	Test	Happening	TBD
2	2023-06-29	21:22	Haryana	India	ODI	Ongoing	TBD

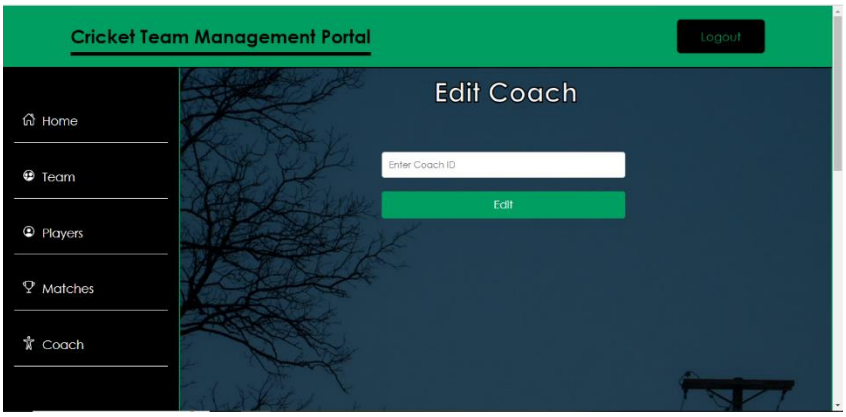
Coach Page:

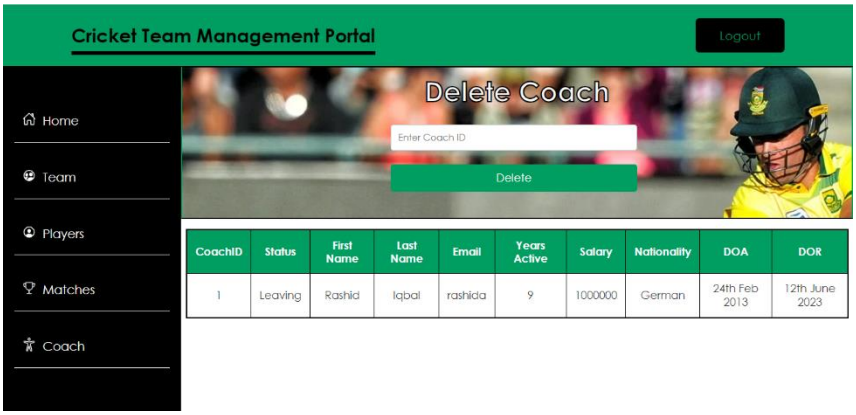


CoachID	Status	First Name	Last Name	Email	Years Active	Salary	Nationality	DOA	DOR
1	Leaving	Rashid	Iqbal	rashida	9	1000000	German	24th Feb 2013	12th June 2023

This page further contains:







CoachID	Status	First Name	Last Name	Email	Years Active	Salary	Nationality	DOA	DOR
1	Leaving	Rashid	Iqbal	rashida	9	1000000	German	24th Feb 2013	12th June 2023

Chapter 4: Back-End

4.1 Technology Used

4.2 Implementation:

Database and its Tables:

```
MariaDB [(none)]> use cricket;
Database changed
MariaDB [cricket]> show tables;
+-------------------+
| Tables_in_cricket |
+-------------------+
| coach             |
| matches           |
| player            |
| playerstats       |
| team              |
+-------------------+
5 rows in set (0.01 sec)

MariaDB [cricket]>
```

Each table is structured as follows:

Team:

```
MariaDB [cricket]> describe team;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| TeamName    | varchar(50) | NO   |     | NULL    |       |
| TeamCaptain | varchar(50) | NO   |     | NULL    |       |
| Wins        | int(10)     | NO   |     | NULL    |       |
| Losses      | int(10)     | NO   |     | NULL    |       |
| Ranking     | int(10)     | NO   |     | NULL    |       |
| HomeGround  | varchar(50) | NO   |     | NULL    |       |
| Logo        | blob        | NO   |     | NULL    |       |
| PlayerID    | int(10)     | NO   | MUL | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
8 rows in set (0.01 sec)
```

Player:

```
MariaDB [cricket]> describe player;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| PlayerID | int(10)     | NO   | PRI | NULL    |       |
| Name     | varchar(50) | NO   |     | NULL    |       |
| Type     | varchar(50) | NO   |     | NULL    |       |
| Age      | int(10)     | NO   |     | NULL    |       |
| Position | int(10)     | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
5 rows in set (0.01 sec)
```

PlayerStats:

```
MariaDB [cricket]> describe playerstats;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| TotalRuns     | int(10)     | YES  |     | NULL    |       |
| FiftyHundreds | varchar(50) | YES  |     | NULL    |       |
| HS            | int(10)     | YES  |     | NULL    |       |
| BF            | int(10)     | YES  |     | NULL    |       |
| Average       | float       | YES  |     | NULL    |       |
| NO            | int(10)     | YES  |     | NULL    |       |
| Maidens       | int(10)     | YES  |     | NULL    |       |
| BB            | varchar(50) | YES  |     | NULL    |       |
| Matches       | int(10)     | NO   |     | NULL    |       |
| Overs         | float       | YES  |     | NULL    |       |
| Balls         | int(10)     | YES  |     | NULL    |       |
| Wickets       | int(10)     | YES  |     | NULL    |       |
| RunsConceded  | int(10)     | YES  |     | NULL    |       |
| PlayerID      | int(10)     | NO   | MUL | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
14 rows in set (0.01 sec)
```

Matches:

```
MariaDB [cricket]> describe matches;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| MatchNo      | int(10)     | NO   | PRI | NULL    |       |
| Date         | varchar(50) | YES  |     | NULL    |       |
| Time         | varchar(50) | YES  |     | NULL    |       |
| Location     | varchar(50) | YES  |     | NULL    |       |
| OpponentName | varchar(50) | YES  |     | NULL    |       |
| MatchType    | varchar(50) | NO   |     | NULL    |       |
| MatchStatus  | varchar(50) | NO   |     | NULL    |       |
| Result       | varchar(50) | NO   |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
8 rows in set (0.01 sec)
```

Coach:

```
MariaDB [cricket]> describe coach;
+-------------+-------------+------+-----+---------+-------+
| Field       | Type        | Null | Key | Default | Extra |
+-------------+-------------+------+-----+---------+-------+
| CoachID     | int(10)     | NO   | PRI | NULL    |       |
| Status      | varchar(50) | NO   |     | NULL    |       |
| FirstName   | varchar(50) | NO   |     | NULL    |       |
| LastName    | varchar(50) | NO   |     | NULL    |       |
| Email       | varchar(50) | NO   |     | NULL    |       |
| YearsActive | int(10)     | YES  |     | NULL    |       |
| Salary      | int(10)     | YES  |     | NULL    |       |
| Nationality | varchar(50) | YES  |     | NULL    |       |
| DOA         | varchar(50) | YES  |     | NULL    |       |
| DOR         | varchar(50) | YES  |     | NULL    |       |
+-------------+-------------+------+-----+---------+-------+
10 rows in set (0.01 sec)
```

Chapter 5: Conclusion

5.1 Conclusion

In conclusion, the development and implementation of the Cricket Team Management System have addressed the challenges faced by university cricket team administrators in managing and organizing their teams. The system provides a comprehensive solution that streamlines team management processes, enhances communication, and facilitates data-driven decision-making. With its ability to insert, update, and delete data, the system ensures that team details, player information, match schedules, and performance analysis are always accurate and up-to-date.

The Cricket Team Management System offers a user-friendly interface, leveraging web development technologies such as **HTML, CSS, JavaScript, and PHP.** This allows for seamless integration of front-end and back-end components, ensuring an efficient and visually appealing user experience. The use of **XAMPP** for database creation and management further enhances the system's reliability and security.

Through the implementation of the Cricket Team Management System, university cricket teams have reported improved efficiency in team management, reduced paperwork, and enhanced

communication with players and coaches. The system's comprehensive player profiles and performance analysis capabilities have aided in talent identification, data-driven decision-making, and strategic planning.

As a result, the Cricket Team Management System has not only simplified administrative tasks but also contributed to the overall development and success of university cricket teams. The system has brought efficiency, accuracy, and transparency to team management processes, allowing administrators to focus on enhancing team performance and fostering a positive cricketing experience for all team members.

Future enhancements to the Cricket Team Management System could include integrating the system with other sports management systems, expanding the analytics capabilities, and incorporating website for increased accessibility. These advancements would further elevate the system's functionality and provide administrators with even more tools to effectively manage and lead their cricket team.

In conclusion, the Cricket Team Management System has proven to be a valuable asset for university cricket team administrators, revolutionizing the way teams are managed and organized. It has set a new standard for efficiency, communication, and data-driven decision-making in cricket team management, ultimately contributing to the growth and success of university cricket programs.