



# Football Player Management System

CSD202 PROJECT REPORT

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Pradeep Kumar G : 181011016

Ishdeep Chadha : 1810110087

Vudit Mittal : 1810110278

## Introduction

The 'Football Player Management System' is a platform to view and organize the database of football players. With his application, we intend to create an organized database for the football players that show their key stats such as Goals, Assists, Appearances, Red cards, Country and Position. The user can add / view / delete / edit players' records as they desire by logging in with authorized credentials. The main application of this is that players can make their own team with the desired stats. There's a log that keeps track of every query execution in the past for reference of the user.

## Features

### 1. Login / Logout Page

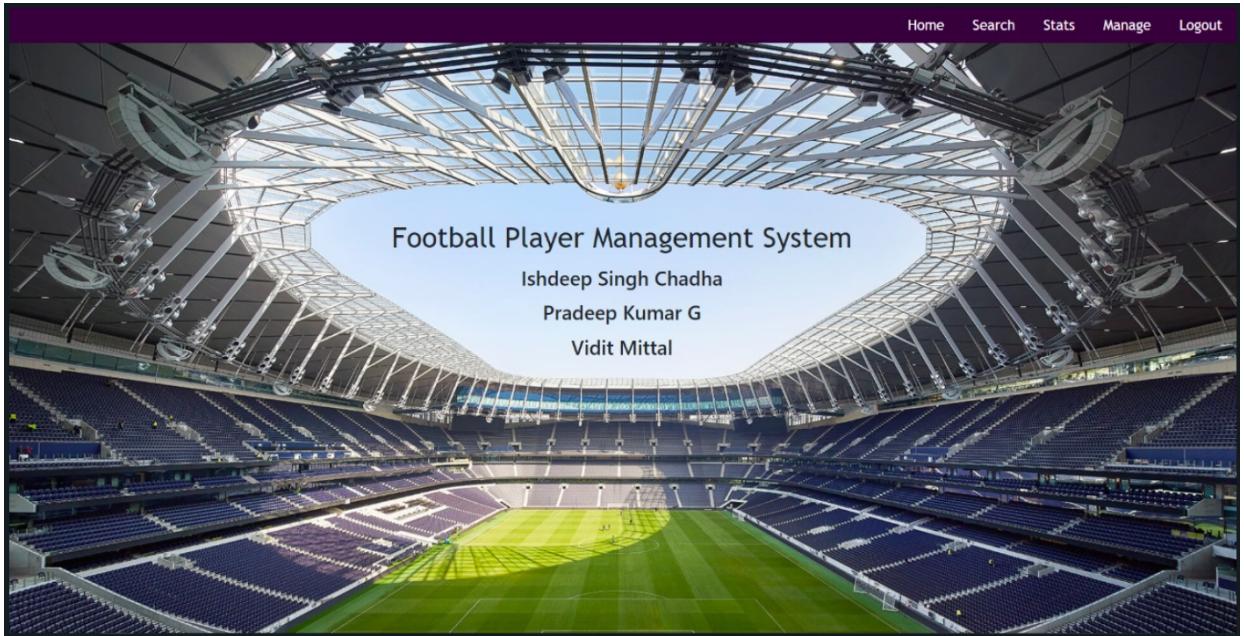
The users can login with their user id and password which gets logged in the database table named users. Therefore if an existing user is trying to login it will first verify from the users table and match the credentials.

When done with their work users can easily log out of the system. It directs them to the login page again.

The diagram shows a simple login form. It consists of a central gray rectangle with a black border. Inside, the word "Login" is centered at the top in a bold, black, sans-serif font. Below it are two horizontal input fields, each with a thin black border. The first input field contains the text "admin". Below it is a second input field containing the text "password". At the bottom of the gray area is a single, long, thin rectangular button with a black border, also containing the text "Login" in a small, black, sans-serif font.

## 2. Home Page

The home page shows the title of the application , via this page users can navigate to other pages shown in the navbar.



## 3. Search Players

For making their own dream team users can search players of their choice either by name or position. Here we used procedures which prevent SQL injection.

The screenshot shows a search interface titled "Search Player". A search bar contains the name "kevin". Below it is a green "Search" button. A table displays the results for "kevin", showing one row with the following data:

Name	Age	Country	Position
Kevin De Bryne	29	Belgium	Midfielder

The interface then transitions to a section titled "Search Player by Position". A search bar contains the position "forward". Below it is a green "Search" button. A table displays the results for "forward", showing three rows of data:

Name	Age	Country	Position
Sunil Chhetri	36	India	Forward
Cristiano Ronaldo	36	Portugal	Forward
Lionel Messi	33	Argentina	Forward

#### 4. Show Player Stats

Users can see different attributes of the players of their choice such as Name , Age , Country and Position. It also includes some of the technical attributes as shown in the screenshot below. To show player stats we have used different SQL joins to join table players and player\_stats.

The screenshot shows a page with two main sections. The top section is titled "Show All Players" and displays a table of player information:

Name	Age	Country	Position
Kevin De Bryne	29	Belgium	Midfielder
Sunil Chhetri	36	India	Forward
Cristiano Ronaldo	36	Portugal	Forward
Lionel Messi	33	Argentina	Forward
Sergio Ramos	35	Spain	Defender
byron	5	dunno	5

The bottom section is titled "Show Player Stats" and displays a table of player statistics:

Name	Appearances	Goals	Assists	Red Cards
Kevin De Bryne	485	112	189	2
Sunil Chhetri	214	103	14	0
Cristiano Ronaldo	887	670	227	7
Lionel Messi	770	663	291	1
Sergio Ramos	715	104	40	26

## 5. Manage

### (i) Insert/Delete/Update Player and Player Stats

Users can insert their own players and give their own statistics / attributes of their player. They can also delete/update their own entries.

[Home](#) [Search](#) [Stats](#) [Manage](#) [Logout](#)

**Insert Players**

Player Id:	<input type="text"/>	Name:	<input type="text"/>	Age:	<input type="text"/>	Country:	<input type="text"/>	Position:	<input type="text"/>	<input type="button" value="Add Player"/>
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**Insert Stats**

Player ID:	<input type="text"/>	Appearances:	<input type="text"/>	Goals:	<input type="text"/>	Assists:	<input type="text"/>	Red Cards:	<input type="text"/>	<input type="button" value="Add Stat"/>
------------	----------------------	--------------	----------------------	--------	----------------------	----------	----------------------	------------	----------------------	---

Player ID	Name	Age	Country	Position	Action
13	Kevin De Bryne	29	Belgium	Midfielder	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
14	Sunil Chhetri	36	India	Forward	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
15	Cristiano Ronaldo	36	Portugal	Forward	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
16	Lionel Messi	33	Argentina	Forward	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
17	Sergio Ramos	35	Spain	Defender	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
18	Ishdeep	20	India	Forward	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Player ID	Name	Appearances	Goals	Assists	Red Cards	Action
13	Kevin De Bryne	485	112	189	2	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
14	Sunil Chhetri	214	103	14	0	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
15	Cristiano Ronaldo	887	670	227	7	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
16	Lionel Messi	770	663	291	1	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
17	Sergio Ramos	715	104	40	26	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
18	Ishdeep	50	10	1	0	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

**Edit**

Name	<input type="text"/>
Age	<input type="text"/>
Country	<input type="text"/>
Position	<input type="text"/>

**Edit Stats**

Appearances	<input type="text"/>
Goals	<input type="text"/>
Assists	<input type="text"/>
Red Cards	<input type="text"/>

## (ii) Logs

We have used triggers to keep track of the user's actions after every insert/delete/update of their entries.

			<a href="#">Show Logs</a>	<a href="#">Clear Logs</a>
<b>Id</b>	<b>Action</b>	<b>Time</b>		
23	Deleted Successfully from PLAYERS table	2021-04-19T18:37:48.000Z		
24	Deleted Successfully from PLAYER_STATS table	2021-04-19T18:37:54.000Z		
25	Inserted Successfully in PLAYERS table	2021-04-19T18:38:32.000Z		
26	Inserted Successfully in PLAYER_STATS table	2021-04-19T18:38:36.000Z		

## Concepts Used

### 1. Triggers

```
mysql> create trigger delete_logger_players after delete on players
    -> for each row
    -> insert into logs(action, time) values ('Deleted Successfully from PLAYERS table', NOW())
    -> |
Query OK, 0 rows affected (0.02 sec)

mysql> create trigger insert_logger_stats after insert on player_stats
    -> for each row
    -> insert into logs(action, time) values ('Inserted Successfully in PLAYER_STATS table', NOW())
    -> |
Query OK, 0 rows affected (0.03 sec)

mysql> create trigger insert_logger_players after insert on players
    -> for each row
    -> insert into logs(action, time) values ('Inserted Successfully in PLAYERS table', NOW())
    -> |
Query OK, 0 rows affected (0.02 sec)

mysql> create trigger update_logger_stats after update on player_stats
    -> for each row
    -> insert into logs(action, time) values ('Updated Successfully in PLAYER_STATS table', NOW())
    -> |
Query OK, 0 rows affected (0.03 sec)

mysql> create trigger update_logger_players after update on players
    -> for each row
    -> insert into logs(action, time) values ('Updated Successfully in PLAYERS table', NOW())
    -> |
Query OK, 0 rows affected (0.02 sec)
```

## 2. Procedures

### (i) Search Players by name

```
mysql> create procedure searchName (in page varchar(30)) select name, age, country, position, appearances, goals, assists, red_cards from player_stats join players on players.id=player_stats.id where name like concat('%',page,'%')
Query OK, 0 rows affected (0.00 sec)
```

### (ii) Search Players by position

```
mysql> create procedure searchPosition (in page varchar(30)) select name, age, country, position, appearances, goals, assists, red_cards from player_stats join players on players.id=player_stats.id where position=page
-> |
Query OK, 0 rows affected (0.00 sec)
```

## Database Tables

We have created four tables which are :

- Players : Player\_Id (primary key) , Name , Age , Country , Position
- Player\_Stats : Player\_Id (primary key) , Appearances, Goals, Assists, Red\_Cards
- Users : Id (primary key) , username , password
- Logs : Id(primary key) , action , time

```
mysql> desc logs;
+-----+-----+-----+-----+
| Field | Type   | Null | Key  | Default | Extra          |
+-----+-----+-----+-----+
| id    | int(11) | NO   | PRI   | NULL    | auto_increment |
| action | varchar(50) | NO   | NO    | NULL    |                |
| time  | timestamp | NO   |       | CURRENT_TIMESTAMP | on update CURRENT_TIMESTAMP |
+-----+-----+-----+-----+
3 rows in set (0.01 sec)

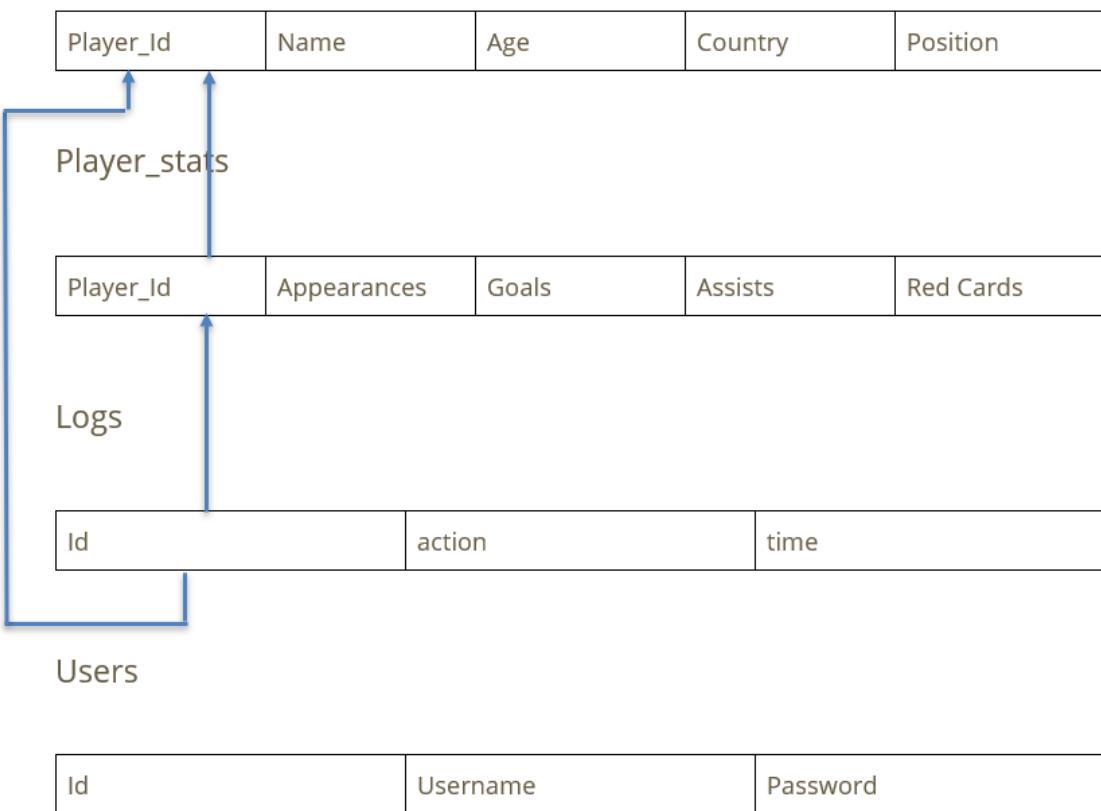
mysql> desc players;
+-----+-----+-----+-----+
| Field | Type   | Null | Key  | Default | Extra          |
+-----+-----+-----+-----+
| player_id | int(5) | NO   | PRI   | NULL    |                |
| name     | varchar(100) | NO   | NO    | NULL    |                |
| age      | int(11)  | NO   | NO    | NULL    |                |
| country  | varchar(50) | NO   |       | NULL    |                |
| position | varchar(30) | NO   |       | NULL    |                |
+-----+-----+-----+-----+
5 rows in set (0.01 sec)

mysql> desc player_stats;
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key  | Default | Extra          |
+-----+-----+-----+-----+
| player_id | int(5) | NO   | PRI   | NULL    |                |
| appearances | int(11) | NO   | NO    | NULL    |                |
| goals    | int(11) | NO   |       | NULL    |                |
| assists   | int(11) | NO   |       | NULL    |                |
| red_cards | int(11) | NO   |       | NULL    |                |
+-----+-----+-----+-----+
```

```
mysql> desc users;
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key  | Default | Extra       |
+-----+-----+-----+-----+-----+-----+
| id    | int(11) | NO   | PRI   | NULL    | auto_increment |
| username | varchar(30) | NO   | UNI   | NULL    |               |
| password | varchar(30) | NO   |        | NULL    |               |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

## Schema Diagram

Players



## Limitations

There are a number of improvement which we feel would have increased the efficiency of our application , which are:

- Views would have decreased the retrieval time.
- Multiple player/stats search could be implemented.
- Cursors to warn the admin about errors in the data table.
- Currently the username and password in the database table can be viewed by anyone and the passwords are not encoded.