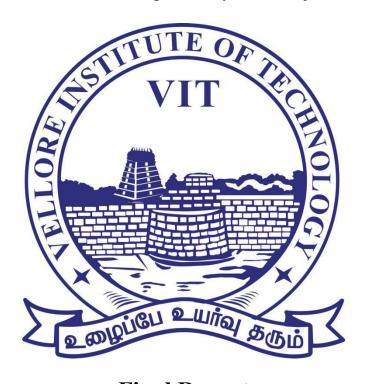
## Vellore Institute of Technology, Vellore

School of Computer Science and Engineering

Database Management Systems Project



# Final Report Event Management in football tournament 10.26.2020

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#### **Course Instructor:**

## Angulakshmi M

Our GitHub Repository link:

https://github.com/kasduck/Event Management in football tournament

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## **Abstract**

Our DBMS project is based on football tournament management. It provides various information about the various teams participating in a tournament, in which all the major clubs participate. It also provides us with information about the various players participating in the tournament . The database contains fixtures, their scorelines, the venues among others. All the usefull information about the entire tournament can be found here.

#### **Introduction:**

Football Management System is a web application designed to maintain the information around the football world and also to provide football club directors and agents to make various types of transactions. The application has several features which according to user can or can't be accessed. There are some common features of the website which can be accessed by everyone and some by only specific users.

All users need to login to the system in order to use it. All users can view information about the clubs, transfer news which shows only completed transfers, players, and matches which displays the home and away clubs with the number of goals scored each. On top of that each user can use the search engine which given a search text searches for clubs, players, coaches and displays the information table like structure.

The coaches homepage shows the information about him and his club. Coaches have additional feature, players transfers, where the completed transfers of his players are listed.

The player user views information about himself in the homepage. Similar to coach users it can view players transfers, all the completed transfers of his previous and future teammates.

The admin user can create leagues, all type of users, clubs and games. In each of these windows the admin fills out all the required information and creates a tuple in database. Admin also has countries and leagues features which simply list all countries and leagues.

## **Contributions of Group Members**

- Anjali Kumari: Completed user pages and their features. Took part in developing a database.
- Aryan
   Completed Admin user pages and their features. Took part in developing a database.

   Conducted a test and debug of final version of the project. Designed the UI of all the pages.
   Took part in filling the initial data of the database.
- Sourabh Agarwal

Did the normalization Took part in developing a database and filling the initial data. Conducted a test and debug of final version of the project.

## **Project Resource Requirements:**

We used MySQL server for managing data.

For user interface and functionalities, we used, PHP, HTML, CSS

## **Design of the Project:**

## Data requirements:

#### **Entities:**

- 1) Football player is an entity type which has many attributres such as nationality, place of birth and name which use the data type varchar because all the three attribute use words. Contract start date, contract end date and date of birth uses the data type date because they are dates. *Football license number is used as the primary key* because every footballer has a unique key and it is of data type number. All these attributes are important information which is necessary for the system.
- 2) Team is an entity type which has city,address and name use data type varchar because they contain one or more than one word. Phone number and team Id use data type number because they can consist only of numbers. *Team id is the primary key* because every team is given a team id before the tournament and no two teams can have the same team id thus distinguishing each team. Primary key cannot have null values
- 3) Coach is an entity type whose attributes are name, nationality of the datatype varchar because they contain words only. *Coach license number is a unique*10 digit number given to every coach which can uniquely identify the coach. Primary key cannot have null values
- 4) Match is an entity type which contains names of home and away team and the stadium in which that particular match is going to be played, the datatype for these are varchar because all of them are names. Score of each game is kept as the total number of goals scored in the game and datatype is number. *Match id is also of the data type number but it is auto incremented* every game so that each game has a different id and each game can be uniquely distinguished and there isn't any ambiguity. Primary key cannot have null values.
- 5) Stadium is an entity type which has attributes like city, stadium name, surface type these attributes are important as a stadium can be of different types like turf, artificial grass etc which have a huge impact on the game. The data type

used is varchar because these are all names. Capacity of each stadium is different some hold about 50,000 people and some can hold more than 1,00,000. The data type for this is number upto 6 digits. *Stadium name is considered the primary key because every stadium has to have a unique name*. Primary key cannot have null values.

- 6) Referee is an entity type which has attributes like city, classification and name of datatype varchar. Classification of referees is important because there are 3 referees in the game which have different roles. Each referee has a *unique license number which is considered the primary key* for this table and is of the data type number. Primary key cannot have null values.
- 7) Goals is an entity type having attributes like football player which is of data type varchar and another attribute time that is the time when the goal is scored. These both are composite primary keys as a player can score many goals but he can only score one goal at one point of time. None of the attributes can be null as both are composite primary keys.

#### **Relationships:**

Football player plays in team (N-1)

A football player can play in only one team but a team can have many players in it but a team must have players in it. So the relationship becomes (N-1).

Coach manages team(1-1)

Coach can manage a single team and each coach can have only one coach. But it is compulsory for a team to have a coach. The relationship is 1-1

Team plays match(1-N)

Team can play many matches but a match can be played by only one team. So the relationship is M-N.

Match has goals(1-N)

Many goals can be scored in a game but one goal is only scored in that particular game

Match referee referee(M-N)

Match can have many referees and each referee can be used in many games

Team has stadium(1-N)

A team can have many stadium but a stadium can only belong to one team.

#### **Functional Requirements**

#### Viewer

System must allow users to login if they enter the correct login id and password. The users must be able to see the player details of each player in the database. Scores of each tournament game must be visible. Match timings and venue should be displayed on the login if the users seek for it.

System should display the complete roster of a team including the substitutes and the players playing in the starting 11. The details of the coach must also be available to the users. Referees and their details are also important as the players and the viewers want to see the bestreferees managing their team's match. Each player's statistics should aslo be available like goals scored, fouls committed etc. each game has a different home and away team which needs to be specified in the database.

System should display data on each goal which has been scored in the duration of the entire tournament. System should allow fixtures to be searched and the timings should also be available. If any player is nearing the end of his contract the system should display that .

#### **BASIC ANALOGY:**

View the website with a browser.

Login to the website.

View all players of the club.

View all players of a team.

View all match reports in a season.

View statistics of a player (all time).

View statistics of a player per season.

Check for injury identification of player.

View Player Bio data.

View Stadium Information.

View Manager Information.

View team formation.

View team tactics.

View referee name.

View referee details.

View player information.

View foul information.

#### View player information per game:

- Matches played
- Goals scored
- Fouls committed
- Trophies won
- Jersey Number

#### View all tournament details:

- Stadium Weather.
- Match Records.
- Goal tally.
- Foul tally.
- Card tally.
- Man of the tournament.
- Top Scorer.

#### View all tournament details:

- a) Stadium Weather.
- b) Match Records.
- c) Goal tally.
- d) Foul tally.
- e) Card tally.
- f) Home Team.
- g) Away Team.
- h) Top scorer.
- i) Man of the match.

## Administrator

Administrator is incharge of creating the website which is used to access the database. Administrator has all the privileges of the user but has the authority to add and remove data from the database which the user cannot do.

Administrator is responsible for creating different user accounts and assigning the id and password. Administrators are the one who generate the fixtures and update them in the database. They should be allowed to enter the team name of home and away teams. He should have the authority to enter and modify the match details like time and venue incase the need to be changed.

If any player has been punished for bad behavior or other reasons and cannot play in the tournament anymore the administrator should be able to delete the data from the tournament database. The scored goals must keep being modified as and when they are scored. The match id which is also called the match number which must be auto incremented. After a team is eliminated or disqualified the administrator should be able to delete the entire team's record.

#### **BASIC ANALOGY:**

Create website.

Generate login ID for viewer.

Design website.

Display different menus.

Create Tournament.

Enter Tournament Name.

Display Stadiums.

Display images.

Display Team Name.

Display Team Captain.

Display Team Jersey.

Display Team Stadium.

Display Team Squad.

Enter Player Name.

Enter Player Jersey Number.

#### Edit player information per game:

- f) Matches played
- g) Goals scored
- h) Fouls committed
- i) Trophies won
- j) Jersey Number

Display Player

Nationality Display

player Height Display

player Weight **Display** 

#### player position:

- a) Goalkeeper
- b) Defender
- c) Midfielder
- d) Forward

Create a new match.

Display Home Team.

Display Away Team.

Display match number.

Display match goals.

Display goal scorer.

Display match result.

Show manager Name.

Display manager ID.

Display manager Record.

Display manager Nationality.

Display manager Team.

Link goals to player.

Link fouls to player.

Link stadium to team.

Link manager to team.

Link player to team.

Link team to tournament.

Link referee to tournament.

#### Edit all tournament details:

- a) Stadium Weather.
- b) Match Records.
- c)Goal tally.
- d) Foul tally.
- e) Card tally.
- f) View match date.
- g) View match time.

#### Edit gameplay details:

- a)Possession.
- b)Tactics. c)Formation.
- d)Penalty Taker.
- e)Free kick Taker.

#### **Modifying Data:**

- 1) Goals scored: The database must be modified after any player scores a goal in any match. The goals can have different weightage according to home and away games. After each goal is scored player who scores gets a goal incremented in the database. Number of goals is essential to be incremented accordingly because strikers are judged according the their scoring abilities more than other attributes.
- 2) <u>Fouls:</u> If a player receives a yellow card it is considered a first warning but when a player gets another yellow card in the same game it is considered a red a card due to which the player can no longer continue playing the game. If a player gets a direct red card then the player is not allowed to play in the next game as well. Cards are incremented in the database as soon as any player receives one from the referees. If any team gets more than 3 red cards then the team disqualified from the game no matter what the scoreline is.

#### **Deleting Data:**

- 1) If a player's contract expires then the player's data needs to be removed from the database. The player can also decide to retire before the contract expires. In these cases the data needs to be deleted. If the player suffers a serious injury and cannot play anymore his data needs to be removed as well.
- 2) If any team is eliminated or the team is disqualified then their data needs to be removed from the tournament's database. The number of goals scored or other technicalities can be kept but the player, team and manager details needs to be deleted as they are no longer relevant to the tournament but the goals scored maybe relevant as to declare the best strike or best goal keeper among others.

#### DATA RETREIVAL:

Data Retrieval means retrieving previously entered data and use it in the current attributes of an entity.

Following are the scenarios of data retrieval:

#### 1) RETREIVING PLAYER RECORDS:

Before the start of a new match, we have to retrieve the player records like: a)Player goals.

- b) Player matches.
- c) Player Jersey Number.

#### 2) <u>RETREIVING STADIUM INFORMATION:</u>

Stadium Information is retrieved before every match in the tournament, like: a)Stadium Capacity.

b)Stadium staff.

#### 3) RETREIVE FOUL HISTORY:

The foul committed by every player is recorded In the Database and retrieved before every game to CHECK whether player is allowed to play the next game or not.

- a) Fouls Committed.
- b) Number of yellow cards.
- c) Number of red cards.

#### 4) RETREIVE MATCH RESULT:

In order for a tournament to proceed, we need to retrieve the result of the previous matches and only then allow the winners of the previous matches to go through to the next match.

The 'SCORELINE' differentiates the winners from the losers. The team with more number of goals in 90 minutes wins the match.

If number of goals are equal, then we have extra time of 120 minutes and even then there is no result, we head in into a PENALTY SHOOTOUT.

#### **INTEGRITY CONSTRAINTS:**

#### A) Referential Integrity Constraint:

A **referential integrity constraint** states that a tuple(entire ROW which contains database values of an entity in an entity) in a database can be associated with another existing tuple.

Referential integrity constraint is defined using a **foreign** key.

A referential integrity constraint is specified to maintain data consistency among tuples.

A referential integrity constraint involves at the most two relations. Example: Player and Goals.

When a player scores a goal, we use PRIMARY KEY as License\_no and increment the Goal Number in the entity Goals where we use FOREIGN KEY as License\_no of goal scorer.

#### B) ENTITY INTEGRITY CONSTRAINT:

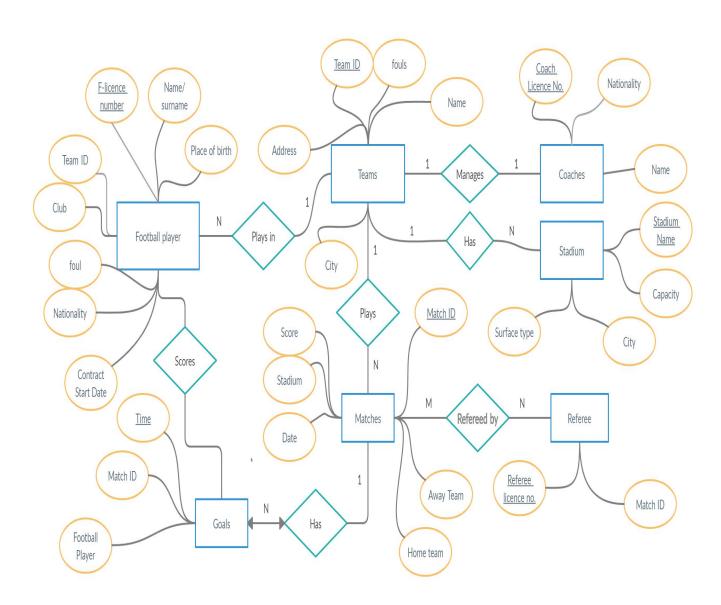
**Entity integrity constraint** specifies that the Primary Key of an entity cannot be NULL.

The following are the Primary Key's of different entities in the Database system's website.

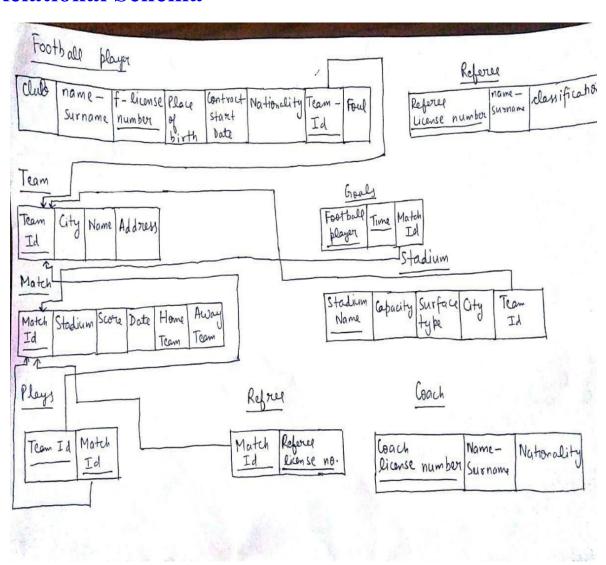
- 1) Player:Jersey Number.
- 2) Team:Team Name.
- 3) Manager:Manager ID.
- 4) Stadium: Stadium ID.
- 5) Tournament: Tournament Name.
- 6) Match: Match Number.
- 7) Referee:Referee ID.
- 8) Goal:Goal Number.
- 9) Foul:Foul Number.

These primary keys are Unique and NOT NULL.

## **ER DIAGRAM:**



## **Relational Schema**



## Normalization

Normalisation Mon tue web thr FRI SAT SUN
Frent Management (football Fournament)
(1) Football Player (F-liscence number, Namelsurname, Place of Birth Team (P) Club, foul Nationality, lontract Start data)
Functional dependencies
F-listence number -> name/sumaine place of Birth,  Team 10, Club, Foul,  Nationality, Contract Start Date
This relation is solveady in BCNF  become held lide of dependancy is  super key.
No need to further decomposition

Teams (Team 1), fauls, Name, Address, City Team 1) -> Name, Adduss, City, bul This relation in already in BCNF No need to further decomposition (3) Grade (Time, MAtCAD, football Player) Time > Matchia, footbalplayer So time in the super key or Candidale my of brods This F.P. is already in DCNF No need to further decomposition

	Date:/ MON TUE WED THR FRI SAT SUN
(4) Matches (Match), Score,	Statium Date, Away team
Match 10 -> Water Stadi	
Statium -> Score, Tat	te, Awayteam, Home team.
The relation is not transitive dependien	in BCNE as
Nomaliations	
Marchinfo ( Stadium, Mat	cn(D)
Match datail (Stadium, S	core, date, twayteam, Hometeam
(5) Referee (Referee liscence	e No., Matchil)
F.Os	
Reforme - l'isconce - No	-> Match ID
This relation is	alroady 'm DINF
No need to dea	onfose it.
No need 18	
No need 18	
No need 18	

(6) (Daches (Coach-lisence No. Nationality, Name) F.Ds Coach lisence NO - T Name , Nationality This relation is already in BONE No need to decompose it (7) Stadium Stadium Name, Capacity, City, Sustacetype t.75 Stadium Name -> Capacity, City, Surface type This relation is already in BCNE because Stadium Name in Super Hoy or transitive dependency not exist. So no need to decompose it

#### **TABLES:**

- 1) Teams
- 2)Players
- 3)Goals
- 4)Games
- 5)Stadium
- 6)Referees
- 7)Coach

#### **SQL CODE:**

```
CREATE
TABLE
teams
                     License_no INTEGER UNSIGNED auto_increment NOT NULL,
                     country CHARACTER (64) NOT NULL,
                     coach CHARACTER (128) NOT NULL,
                     confederation CHARACTER (8) NOT NULL,
                     group_name CHARACTER(4) NOT NULL,
                     iso_3166_1_alpha_2 CHAR(2) NOT NULL,
                     PRIMARY KEY(license_no)
            )
            INSERT INTO teams VALUES(1, "Argentina", "Diego Maradona", "CONMEBOL", "B", "ar");
            INSERT INTO teams VALUES(2, "Nigeria", "Lars Lagerbäck", "CAF", "B", "ng");
            INSERT INTO teams VALUES(3, "South Korea", "Huh Jung-Moo", "AFC", "B", "kr");
            INSERT INTO teams VALUES(4, "Greece", "Otto Rehhagel", "UEFA", "B", "gr");
            INSERT INTO teams VALUES(5, "South Africa", "Carlos Alberto Parreira", "CAF", "A",
            "za");
            INSERT INTO teams VALUES(6, "Mexico", "Javier Aguirre", "CONCACAF", "A", "mx");
```

icense_no	country	coach	confederation	group_name	iso_3166_1_alpha_2
1	Argentina	Diego Maradona	CONMEBOL	В	ar
!	Nigeria	Lars Lagerbäck	CAF	В	ng
3	South Korea	Huh Jung-Moo	AFC	В	kr
4	Greece	Otto Rehhagel	UEFA	В	gr

```
CREATE
TABLE
players
                      id INTEGER UNSIGNED auto increment NOT NULL,
                      name CHARACTER VARYING(128) NOT NULL,
                     postion varchar(20),
                      team id INTEGER UNSIGNED NOT NULL,
                      foul VARCHAR(10) NOT NULL,
                     FOREIGN KEY (foul) REFERENCES games(id),
                     FOREIGN KEY (team id) REFERENCES teams(id),
                      PRIMARY KEY (id, team_id)
             )
             INSERT INTO players VALUES(1, "Diego Pozo", "GK", 1);
             INSERT INTO players VALUES(2, "Martín Demichelis", "DF", 1);
             INSERT INTO players VALUES(3, "Clemente Rodríguez", "DF", 1);
             INSERT INTO players VALUES(4, "Nicolás Burdisso", "DF", 1);
             INSERT INTO players VALUES(5, "Mario Bolatti", "MF", 1);
```

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

#### Result:

#### Number of Records: 3

id	name	postion	team_id	foul
1	Diego Pozo	GK	1	None
2	Martín Demichelis	DF	1	Red
5	Mario Bolatti	MF	1	Yellow

#### CREATE TABLE

goals (

```
id INTEGER UNSIGNED auto_increment NOT NULL,
game_id INTEGER UNSIGNED NOT NULL,
team_id INTEGER UNSIGNED NOT NULL,
player_id INTEGER UNSIGNED NOT NULL,
minute INTEGER UNSIGNED NOT NULL,
half INTEGER UNSIGNED NOT NULL,
type VARCHAR(10),
FOREIGN KEY (team_id) REFERENCES teams(License_id),
FOREIGN KEY (player_id) REFERENCES players(id),
FOREIGN KEY (game_id) REFERENCES games(id),
PRIMARY KEY (id)
)
INSERT INTO goals VALUES(13, 1, 5, 8, 15, 2, "normal");
INSERT INTO goals VALUES(24, 5, 17, 8, 40, 1, "penalty");
```



## CREATE TABLE

games (

```
id INTEGER UNSIGNED

auto_increment NOT NULL,
    home_team INTEGER UNSIGNED NOT

NULL,
    away_team INTEGER UNSIGNED NOT

NULL,

venue INTEGER UNSIGNED NOT NULL,
    FOREIGN KEY (venue) REFERENCES

Stadium(id),
    PRIMARY KEY (id)

)

INSERT INTO games VALUES(1, 5, 6, 2);
INSERT INTO games VALUES(2, 7, 8, 4);
INSERT INTO games VALUES(3, 3, 4, 7);
INSERT INTO games VALUES(4, 1, 2, 5);
INSERT INTO games VALUES(5, 9, 17, 11);
```



## Result:

#### Number of Records: 3

id	home_team	away_team	venue
1	3	4	1
2	4	5	2
3	5	8	4

## CREATE TABLE Stadiu m

id INTEGER UNSIGNED auto\_increment NOT NULL,
name CHARACTER VARYING(32) NOT NULL,
city CHARACTER VARYING(16) NOT NULL,
capacity INTEGER UNSIGNED NOT NULL,
PRIMARY KEY (id))

```
INSERT INTO Stadium VALUES(2, "Soccer City", "Johannesburg", 94700);
INSERT INTO Stadium VALUES(3, "Moses Mabhida Stadium", "Durban", 70000);
INSERT INTO Stadium VALUES(4, "Cape Town Stadium", "Cape Town", 69070);
INSERT INTO Stadium VALUES(5, "Ellis Park Stadium", "Johannesburg", 62567);
INSERT INTO Stadium VALUES(6, "Loftus Versfeld Stadium", "Pretoria", 51760);
```

ber o	f Records: 3		
i	name	city	capacity
	Soccer City	Johannesburg	94700
	Moses Mabhida Stadium	Durban	70000
	Cape Town Stadium	Cape Town	69070

```
CREATE TABLE

referees (

License_no number(6),

NAME

VARCHAR(200),

NATIONALITY(50),

Constraint const_pkref primary key(License_no);
);

INSERT INTO referees VALUES(1, "Howard Webb", "England");
INSERT INTO referees VALUES(2, "Pierluigi Collina", "Italy");
INSERT INTO referees VALUES(3, "Mark Istevaan", "Spain");
```

ber of Records: 3		
license_no	NAME	NATIONALITY
1	Howard Webb	England
2	Pierluigi Collina	Italy
3	Mark Istevan	Spain

```
CREATE TABLE

coach (

License_no number(6),

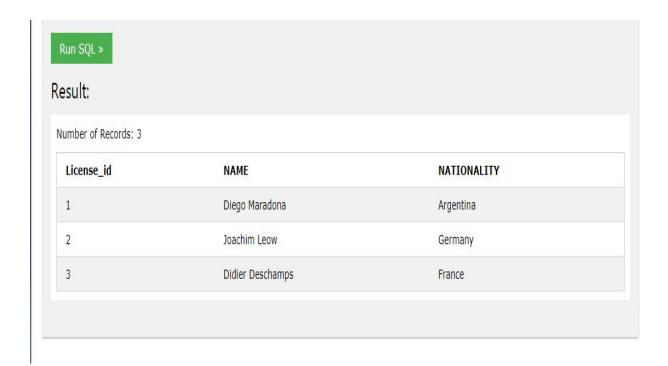
NAME VARCHAR(25),

NATIONALITY

VARCHAR(25),

constrain const_pkcoach primary key(License_no)

);
```



**ANS – 6)** 

#### **Coach table**

c license number	name	nationality	teamid
1157451201	Thomas Tuchel	Germany	1
1157451202	Jurgen Klopp	Germany	2
1157451203	Maurizio Sarri	Italy	3
1157451204	Gennaro Gattuso	Italy	4
1157451205	Ernesto Valverde	Spain	5
1157451206	Unai Emery	Spain	6

## **PLAYER table:**

f.licence_number	nationality	contract start date	contract end date	place of birth	date of birth	name	teamid
1825732901	Brazil	2014-10-15	2020-10-26	Brazil	1996-10-12	Arthur Ramos	1
1825732902	Argentina	2014-10-15	2019-10-10	Argentina	1993-02-02	Paulo Dybala	1
1825732903	Spain	2015-10-10	2020-05-10	Spain	1992-11-09	Juan Brandariz Movilla	1
1825732904	Brazil	2013-02-02	2019-10-10	Brazil	1997-02-04	Lucas Tolentino Coelho	1
1825732905	Spain	2013-10-02	2020-10-20	Spain	1995-02-04	Saul Niguez Esclapez	1
1825732906	Egypt	2018-07-04	2020-05-10	Egypt	1992-04-04	Ahmed Ali Khamel	2
1825732907	Colombia	2016-01-15	2020-05-11	Colombia	1992-10-05	Yerry Fernando Mina	2
1825732908	France	2013-11-01	2021-03-11	France	1998-02-04	Ousmane Dembele	2
1825732909	Italy	2013-02-02	2018-11-11	Italy	1992-04-04	Jorge Luiz Frello	2
1825732910	Guinea	2013-11-12	2021-03-11	Guinea	1995-02-04	Naby Deco Keita	2
1825732911	Germany	2014-10-15	2022-03-11	Germany	1992-04-04	Toni Kroos	3
1825732912	Netherlands	2016-10-15	2019-10-10	Netherlands	1995-04-09	Tahith Chong	3
1825732913	Indinesia	2016-01-02	2021-08-11	Indonesia	1995-09-10	Riko Simanjuntak	3
1825732914	Argentina	2010-02-02	2021-03-11	Argentina	1987-06-24	Lionel Andres Messi	3
1825732915	England	2014-06-15	2019-06-10	England	1997-10-31	Marcus Rashford	3
1825732916	Brazil	2014-10-15	2018-11-11	Brazil	1992-02-05	Neymar Da Silva	4
1825732917	France	2018-02-02	2022-11-11	France	1996-03-28	Benjamin Pavard	4
1825732918	England	2014-10-15	2019-10-10	England	1993-07-28	Harry Edward Kane	4
1825732919	Italy	2018-10-05	2020-09-11	Italy	1998-01-03	Patrick cutron	4
1825732920	France	2018-10-05	2019-10-10	France	1991-03-21	Antoine Griezman	4
1825732921	Beligium	2013-11-02	2019-08-11	Belgium	1993-05-13	Romelu Menama Lukaku	5
1825732922	Serbia	2013-02-02	2019-10-10	Serbia	1995-02-27	Sergej Milinkovic Savic	5
1825732923	Colombia	2013-02-02	2018-11-11	Colombia	1991-07-12	James David Rodriguez	5
1825732924	England	2015-10-10	2018-01-12	England	1999-03-31	Japhet Tanganga	5
1825732925	Korea Republic	2015-10-10	2019-10-10	Korea Republi	1987-05-12	Yoon Shin Young	5

#### **Matches table**

matchid	home_team	away_team	home score	away score	stadiums	time
1	PSG	LFC	3	0	Parc de Princes	2017-10-01 21:00:00
2	CFC	ACM	2	1	Stramford Bridge	2017-10-02 21:00:00
3	FCB	ARS	1	3	Camp Lou	2017-10-03 21:00:00
4	LFC	PSG	2	2	Anfield	2017-10-04 21:00:00
5	ACM	CFC	1	1	San Siro	2017-10-05 21:00:00
6	ARS	FCB	2	3	Emirates stadium	2017-10-06 21:00:00
7	PSG	CFC	1	1	Parc de Princes	2017-10-07 21:00:00
8	LFC	ACM	2	2	Anfield	2017-10-08 21:00:00
9	ARS	ACM	0	2	Emirates	2017-10-09 21:00:00
10	FCB	CFC	2	1	Camp Lou	2017-10-10 21:00:00
11	PSG	FCB	2	2	Parc de Princes	2017-10-11 21:00:00
12	LFC	ARS	3	4	Anfiled	2017-10-12 21:00:00
13	CFC	PSG	3	3	Stramford Bridge	2017-10-13 21:00:00
14	ACM	LFC	0	0	San Siro	2017-10-14 21:00:00
15	ACM	ARS	2	2	San Siro	2017-10-15 21:00:00
16	FCB	CFC	0	0	Camp Lou	2017-10-16 21:00:00
17	FCB	PSG	3	3	Camp Lou	2017-10-17 21:00:00
18	ARS	LFC	0	0	Emirates Stadium	2017-10-18 21:00:00
19	PSG	ACM	3	3	Parc de Princes	2017-10-19 21:00:00
20	LFC	ACM	3	2	Anfield	2017-10-20 21:00:00
21	CFC	ARS	2	2	Stramford Bridge	2017-10-21 21:00:00
22	ACM	PSG	0	0	San Siro	2017-10-22 21:00:00
23	FCB	LFC	3	1	Camp Lou	2017-10-23 21:00:00
24	ARS	CFC	3	3	Emirates	2017-10-24 21:00:00

#### **Table referee**

rlicencenumber	city	name
1195047501	Argentina	Mauricio Pochettino
1195047502	Italy	Eusebio Di Francesco
1195047503	Portugal	Jose Mourinho
1195047504	Spain	Pep Guardiola
1195047505	Portugal	Marco Silva

#### **Table stadium**

city	stadium name	capacity	surface type	teamid
Paris	Parc des Princes	48712	Grass	1
Liverpool	Anfield	54167	Grass	2
London	Stamford Bridge	41837	Grass	3
Milano	San Siro	80018	Grass	4
Barcelona	Camp Lou	99359	Grass	5
London	Emirates Stadium	60432	Grass	6

#### Table team

teamid	Location	name	Manager Name	Short name
1	Paris	Paris Saint German	Thomas tuchel	PSG
2	Liverpool	Liverpool	Jurgen Kloop	LFC
3	London	Chelsea	Maurizio Sarri	CFC
4	Milano	AC Milan	Gennaro Gattuso	ACM
5	Barcelona	Barcelona FC	Ernesto Valverde	FCB
6	London	Arsenal	Unai Emery	ARS

## **Implementation:**

The project is mainly composed of three parts database, backend and frontend. We have used MariaDB relational database in our project. In order to create the tables and dependencies we used Java. The initial data was filled manually.

The backend part of the project is mainly consisted of PHP code. In order to operate between pages we used global arrays which PHP provides, such as session or post. We have used arrays in order to pass the current user type and the details of that user types so that we can show relevant information in each of the pages. As mentioned before some pages are shared between users thus we needed to know which user is logged in.

The frontend of the project and the User Interface was designed using bootspring library. It has built in designs and styles of various forms which was very convenient to use.

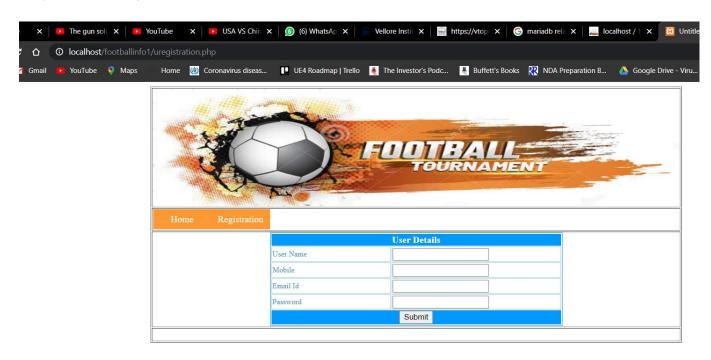
During the implementation phase we have faced a lot of issues. One of the most challenging issues was making a transfer market work. The problem was in number of participants in this action, to be exact three, two directors and an agent. After a long hours of discussion we came up with a conclusion to use states as a way of understanding the current status of transfer offers. Another issue we have faces was caused by global variable post of PHP. The issue was that post once some of its values are set were literally impossible (we tried everything) to reset which were causing some queries to re-run and modify the data in a wrong way. We have solved this problem by modifying the query such that it runs only when needed and fortunately we got over it.

## **Snapshots:**

## Login page:

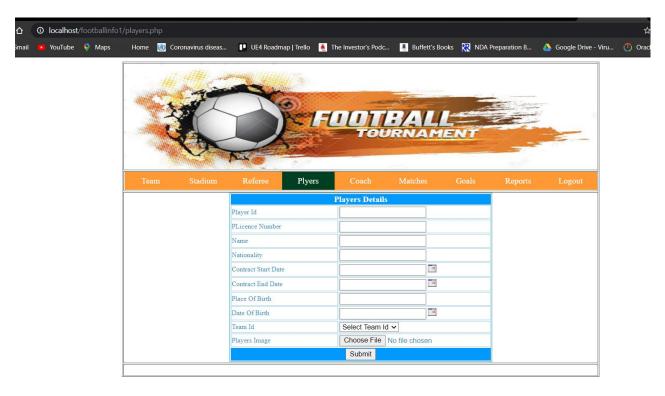


## Registration Page:



## Admin Page:





## <u>User Page:</u>

