

Football Database

Web Application Databases Project

Using:

- *SSMS*
- *PHPMYADMIN*
- *VISUAL STUDIO CODE*
- *XAMPP*

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Group: 30322

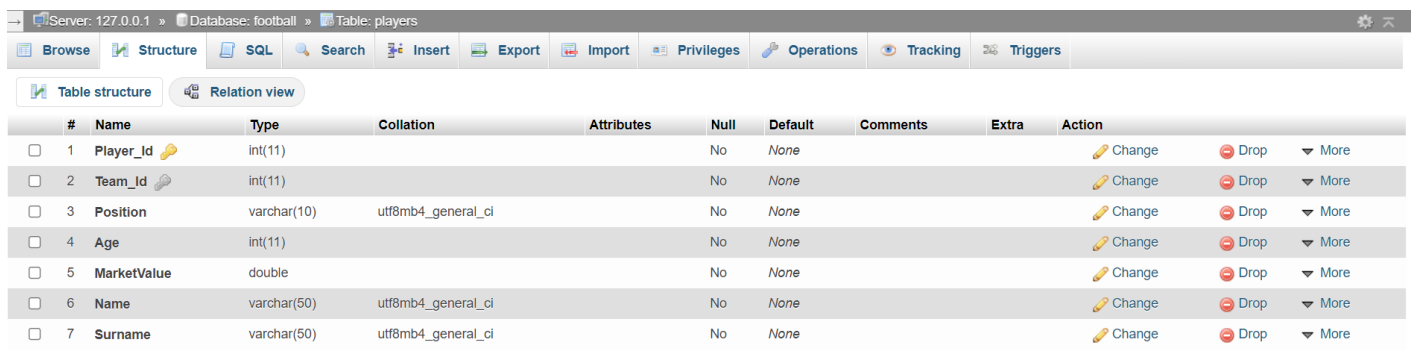
The database created in phpMyAdmin

The database “Football” contains:

- **6 main tables:** Players, Teams, Coaches, Goals, Matches and Salaries
- **1 user/admin table:** User_Admins
- **6 views:** Goalscorers, GoalOverAvg, GoalsWithNoAssists, PlayersWithSameMV, TeamStadiums, TotalAvgMV

The structure of each table:

Players:

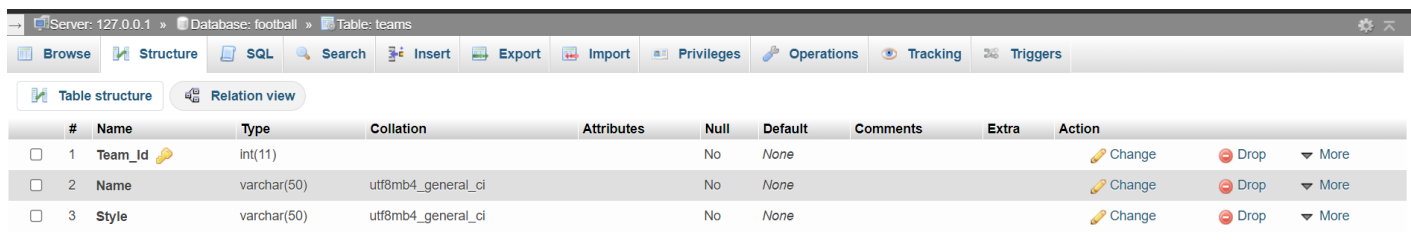


Server: 127.0.0.1 » Database: football » Table: players

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Player_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 Team_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 Position	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 Age	int(11)			No	None			Change Drop More
<input type="checkbox"/>	5 MarketValue	double			No	None			Change Drop More
<input type="checkbox"/>	6 Name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	7 Surname	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Teams:

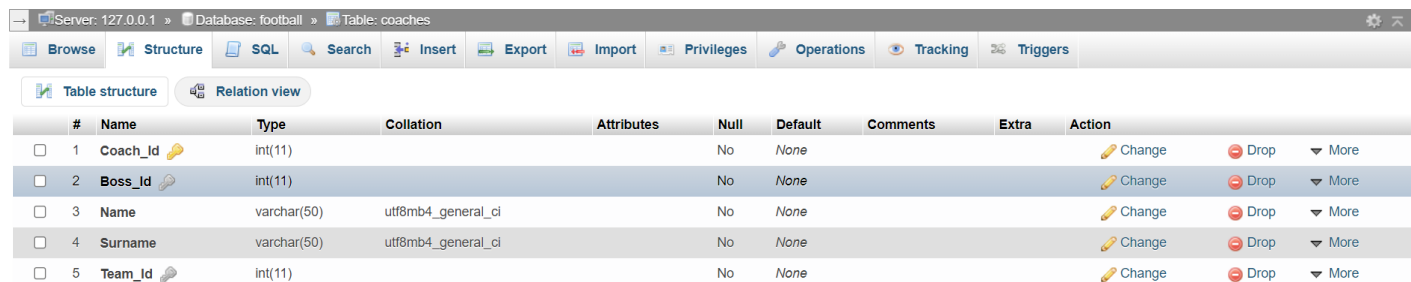


Server: 127.0.0.1 » Database: football » Table: teams

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Team_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 Name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	3 Style	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More

Coaches:



Server: 127.0.0.1 » Database: football » Table: coaches

Table structure | Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 Coach_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 Boss_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	3 Name	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	4 Surname	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	5 Team_Id	int(11)			No	None			Change Drop More

Goals:

Server: 127.0.0.1 » Database: football » Table: goals

BrowserStructureSQLSearchInsertExportImportPrivilegesOperationsTrackingTriggers

Table structureRelation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 PlayerGoal_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 PlayerAssist_Id	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	3 Match_Id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	4 Time	int(11)			No	None			Change Drop More
<input type="checkbox"/>	5 xG	double			No	None			Change Drop More
<input type="checkbox"/>	6 Type	varchar(59)	utf8mb4_general_ci		No	None			Change Drop More
<input type="checkbox"/>	7 IsOwnGoal	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More

Matches:

Server: 127.0.0.1 » Bază de date: football » Tabel: matches

RăsfoieșteStructurăSQLCautăInsereazăExportăImportăPrivilegiiOperațiiUrmărireDeclanșatori

Structură tabelVizualizare relație

#	Nume	Tip	Colaționare	Atribute	Nul	Implicit	Comentarii	Suplimentar	Acțiune
<input type="checkbox"/>	1 Match_Id	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	2 TeamH_Id	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	3 TeamA_Id	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	4 GoalsH	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	5 GoalsA	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	6 Date	date			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	7 Stadium	varchar(50)	utf8mb4_general_ci		Nu	Niciuna			Modifică Elimină Mai mult

Salaries:

Server: 127.0.0.1 » Bază de date: football » Tabel: salaries

RăsfoieșteStructurăSQLCautăInsereazăExportăImportăPrivilegiiOperațiiUrmărireDeclanșatori

Structură tabelVizualizare relație

#	Nume	Tip	Colaționare	Atribute	Nul	Implicit	Comentarii	Suplimentar	Acțiune
<input type="checkbox"/>	1 Player_Id	int(11)			Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	2 Amount	double			Nu	Niciuna			Modifică Elimină Mai mult

Users_Admins:

Server: 127.0.0.1 » Bază de date: football » Tabel: users_admins

RăsfoieșteStructurăSQLCautăInsereazăExportăImportăPrivilegiiOperațiiUrmărireDeclanșatori























































Structură tabelVizualizare relație

#	Nume	Tip	Colaționare	Atribute	Nul	Implicit	Comentarii	Suplimentar	Acțiune
<input type="checkbox"/>	1 Name	varchar(50)	utf8mb4_general_ci		Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	2 Password	varchar(50)	utf8mb4_general_ci		Nu	Niciuna			Modifică Elimină Mai mult
<input type="checkbox"/>	3 ID	int(11)			Nu	Niciuna			Modifică Elimină Mai mult









☐ Difereț tabel ☐ Căutare selectată: ☐ Răsfoiește ☐ Modifică ☐ Elimină ☐ Descărcare ☐ Urmărire ☐ Tabel ☐ Descărcare ☐ Test tabel

The content of the database:

Players:

Server: 127.0.0.1 » Bază de date: football » Tabel: players										
+ Opțiuni										
← T →										
				Player_Id	Team_Id	Position	Age	MarketValue	Name	Surname
<input type="checkbox"/>				1	1	GK	35	18	Neuer	Manuel
<input type="checkbox"/>				2	1	RB	20	75	Davies	Alphonso
<input type="checkbox"/>				3	1	CB	25	45	Hernández	Lucas
<input type="checkbox"/>				4	1	CB	32	10	Boateng	Jérôme
<input type="checkbox"/>				5	1	RB	25	35	Pavard	Benjamin
<input type="checkbox"/>				6	1	CM	26	90	Kimmich	Joshua
<input type="checkbox"/>				7	1	CM	26	70	Goretzka	Leon
<input type="checkbox"/>				8	1	CF	31	35	Müller	Thomas
<input type="checkbox"/>				9	1	LW	24	65	Coman	Kingsley
<input type="checkbox"/>				10	1	RW	25	70	Sané	Leroy
<input type="checkbox"/>				11	1	ST	32	60	Lewandowski	Robert
<input type="checkbox"/>				13	2	CB	28	14	Orban	Willi
<input type="checkbox"/>				14	2	CB	24	32	Klostermann	Lukas
<input type="checkbox"/>				15	2	CB	22	60	Upamecano	Dayot
<input type="checkbox"/>				16	2	CM	27	42	Sabitzer	Marcel
<input type="checkbox"/>				17	2	CM	30	14	Kampl	Kevin
<input type="checkbox"/>				18	2	LM	24	35		Angeliño
<input type="checkbox"/>				19	2	RB	24	12	Henrichs	Benjamin

Coaches:

+ Opțiuni							
← T →							
				Coach_Id	Boss_Id	Name	Surname
<input type="checkbox"/>				1	1	Flick	Hans
<input type="checkbox"/>				2	2	Röhl	Danny
<input type="checkbox"/>				3	3	Klose	Miroslav
<input type="checkbox"/>				4	3	Tapalovic	Toni
<input type="checkbox"/>				5	1	Nagelsmann	Julian
<input type="checkbox"/>				6	2	Volz	Moritz
<input type="checkbox"/>				7	2	Toppmöller	Dino
<input type="checkbox"/>				8	3	Gößling	Frederik
<input type="checkbox"/>				9	1	Glasner	Oliver
<input type="checkbox"/>				10	2	Angerschmid	Michael
<input type="checkbox"/>				11	1	Terzic	Edin
<input type="checkbox"/>				12	2	Addo	Otto
<input type="checkbox"/>				13	3	Kleinsteiber	Matthias

Teams:

+ Opțiuni

				Team_Id	Name	Style
<input type="checkbox"/>	Editează	Copiază	Șterge	1	Bayern Munchen	very offensive
<input type="checkbox"/>	Editează	Copiază	Șterge	2	RB Leipzig	offensive
<input type="checkbox"/>	Editează	Copiază	Șterge	3	Wolfsburg	pressing
<input type="checkbox"/>	Editează	Copiază	Șterge	4	Borussia Dortmund	rapid play

☐ Bifează tot Cu cele selectate: Editează Copiază Șterge Exportă

Goals:

+ Opțiuni

PlayerGoal_Id	PlayerAssist_Id	Match_Id	Time	xG	Type	IsOwnGoal
41	35	1	45	0.4	header	no
11	NULL	1	48	0.3	regular	no
9	11	1	80	0.4	wide	no
44	35	1	83	0.4	counter	no
8	9	2	34	0.3	header	no
20	18	2	48	0.1	cross	no
8	9	2	75	0.25	regular	no
31	27	3	5	0.1	cross	no
11	9	3	45	0.25	through-ball	no
11	4	3	50	0.2	through-ball	no
44	NULL	4	2	0.1	counter	no
44	NULL	4	9	0.3	counter	no
11	10	4	26	0.15	through-ball	no
11	NULL	4	44	0.6	penalty	no
7	NULL	4	88	0.15	regular	no
11	2	4	90	0.2	cross	no
33	28	5	35	0.3	through-ball	no
31	27	5	54	0.2	set-piece	no







Matches:

+ Opțiuni

				Match_Id	TeamH_Id	TeamA_Id	GoalsH	GoalsA	Date	Stadium
<input type="checkbox"/>	Editează	Copiază	Șterge	4	1	4	4	2	2021-03-06	Allianz Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	11	4	2	3	2	2021-05-16	Signal Iduna Park
<input type="checkbox"/>	Editează	Copiază	Șterge	2	1	2	3	3	2020-12-05	Allianz Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	8	3	2	2	2	2021-01-16	Volkswagen Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	7	4	3	2	0	2021-01-03	Signal Iduna Park
<input type="checkbox"/>	Editează	Copiază	Șterge	1	4	1	2	3	2020-11-07	Signal Iduna Park
<input type="checkbox"/>	Editează	Copiază	Șterge	5	3	1	2	3	2021-04-17	Volkswagen Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	3	1	3	2	1	2020-12-16	Allianz Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	10	2	4	1	3	2021-01-09	Signal Iduna Park
<input type="checkbox"/>	Editează	Copiază	Șterge	9	3	4	0	2	2021-04-14	Volkswagen Arena
<input type="checkbox"/>	Editează	Copiază	Șterge	6	2	1	0	1	2021-04-03	Red Bull Arena

Salaries:


+ Opțiuni

				▼ Player_Id	Amount
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	1	2
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	2	1.5
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	3	1
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	4	2
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	5	2.3
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	6	2.7
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	7	4
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	8	2.3
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	9	2.2
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	10	3.2

 Consolă

Bifează tot

Cu cele selectate:

 Editează





 Copiază


 Șterge

 Exportă

User_Admins:


+ Opțiuni


				▼ Name	Password	ID
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	Andrei	12345	2
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	Laur	parola12	1
<input type="checkbox"/>	 Editează	 Copiază	 Șterge	Laurentiu	1234	1


 Consolă

☐ Bifează tot

Cu cele selectate:

 Editează

 Copiază

 Șterge

 Exportă

To create the tables in the database, here are some of the queries

```
INSERT INTO `teams` (`Team_Id`, `Name`, `Style`) VALUES ('1', 'Bayern Munchen', 'offensive'), ('2', 'RB Leipzig', 'offensive'), ('3', 'Wolfsburg', 'pressing'), ('4', 'Borussia Dortmund', 'rapid play');
```

```
INSERT INTO `players` (`Player_Id`, `Team_Id`, `Position`, `Age`, `MarketValue`, `Name`, `Surname`) VALUES ('1', '1', 'GK', '35', '18', 'Neuer', 'Manuel '), ('2', '1', 'RB', '20', '75', 'Davies', 'Alphonso '), ('3', '1', 'CB', '25', '45', 'Hernández', 'Lucas '), ('4', '1', 'CB', '32', '10', 'Boateng', 'Jérôme'), ('5', '1', 'RB', '25', '35', 'Pavard', 'Benjamin '), ('6', '1', 'CM', '26', '90', 'Kimmich', 'Joshua '), ('7', '1', 'CM', '26', '70', 'Goretzka', 'Leon '), ('8', '1', 'CF', '31', '35', 'Müller', 'Thomas '), ('9', '1', 'LW', '24', '65', 'Coman', 'Kingsley '), ('10', '1', 'RW', '25', '70', 'Sané', 'Leroy '), ('11', '1', 'ST', '32', '60', 'Lewandowski', 'Robert ');
```

```
INSERT INTO `players` (`Player_Id`, `Team_Id`, `Position`, `Age`, `MarketValue`, `Name`, `Surname`)
VALUES ('12', '2', 'GK', '31', '12', 'Gulácsi', 'Péter '), ('13', '2', 'CB', '28', '14', 'Orban', 'Willi '), ('14', '2', 'CB',
'24', '32', 'Klostermann', 'Lukas '), ('15', '2', 'CB', '22', '60', 'Upamecano', 'Dayot '), ('16', '2', 'CM', '27', '42',
'Sabitzer', 'Marcel '), ('17', '2', 'CM', '30', '14', 'Kampl', 'Kevin '), ('18', '2', 'LM', '24', '35', '', 'Angeliño'),
('19', '2', 'RB', '24', '12', 'Henrichs', 'Benjamin '), ('20', '2', 'LW', '29', '20', 'Forsberg', 'Emil '), ('21', '2',
'CAM', '23', '38', 'Olmo', 'Dani '), ('22', '2', 'ST', '25', '18', 'Sörloth', 'Alexander ');
```

```
INSERT INTO `players` (`Player_Id`, `Team_Id`, `Position`, `Age`, `MarketValue`, `Name`, `Surname`)
VALUES ('23', '3', 'GK', '28', '11', 'Casteels', 'Koen '), ('24', '3', 'LB', '26', '6', 'Otávio', 'Paulo '), ('25', '3', 'CB',
'28', '12', 'Brooks', 'John Anthony '), ('26', '3', 'CB', '21', '25', 'Lacroix', 'Maxence '), ('27', '3', 'RB', '26', '9',
'Mbabu', 'Kevin '), ('28', '3', 'CM', '23', '22', 'Schlager', 'Xaver '), ('29', '3', 'CM', '26', '19', 'Arnold',
'Maximilian '), ('30', '3', 'LW', '22', '12', 'Brekalo', 'Josip '), ('31', '3', 'SS', '27', '8', 'Philipp', 'Maximilian '),
('32', '3', 'RB', '23', '22', 'Baku', 'Ridle '), ('33', '3', 'ST', '28', '30', 'Weghorst', 'Wout ');
```

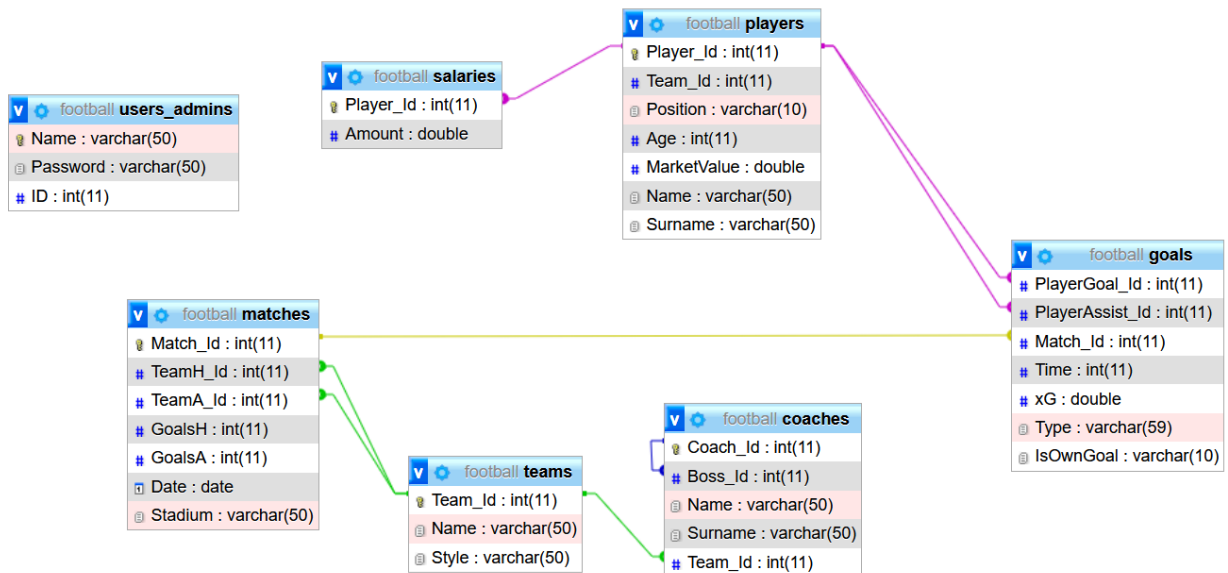
```
INSERT INTO `players` (`Player_Id`, `Team_Id`, `Position`, `Age`, `MarketValue`, `Name`, `Surname`)
VALUES ('34', '4', 'GK', '33', '1.7', 'Hitz', 'Marwin '), ('35', '4', 'LB', '27', '35', 'Guerreiro', 'Raphaël '), ('36',
'4', 'CB', '25', '25', 'Akanji', 'Manuel '), ('37', '4', 'CB', '32', '15', 'Hummels', 'Mats '), ('38', '4', 'RB', '35',
'1.3', 'Piszczek', 'Lukasz '), ('39', '4', 'CB', '26', '27', 'Can', 'Emre'), ('40', '4', 'CM', '25', '11', 'Dahoud',
'Mahmoud '), ('41', '4', 'CAM', '31', '15', 'Reus', 'Marco '), ('42', '4', 'LW', '21', '100', 'Sancho', 'Jadon '),
('43', '4', 'CAM', '18', '38', 'Reyna', 'Giovanni '), ('44', '4', 'ST', '20', '110', 'Haaland', 'Erling ');
```

```
INSERT INTO `coaches` (`Coach_Id`, `Boss_Id`, `Name`, `Surname`, `Win_rate`, `Team_Id`) VALUES ('1',
'1', 'Flick', 'Hans', '', '1'), ('2', '2', 'Röhl', 'Danny ', '', '1'), ('3', '3', 'Klose', 'Miroslav ', '', '1'), ('4', '3',
'Tapalovic', 'Toni ', '', '1'), ('5', '1', 'Nagelsmann', 'Julian ', '', '2'), ('6', '2', 'Volz', 'Moritz ', '', '2'), ('7', '2',
'Toppmöller', 'Dino ', '', '2'), ('8', '3', 'Göbbling', 'Frederik ', '', '2'), ('9', '1', 'Glasner', 'Oliver ', '', '3'), ('10', '2',
'Angerschmid', 'Michael ', '', '3'), ('11', '1', 'Terzic', 'Edin ', '', '4'), ('12', '2', 'Addo', 'Otto ', '', '4'), ('13', '3',
'Kleinsteiber', 'Matthias ', '', '4');
```

```
INSERT INTO `matches` (`Match_Id`, `TeamH_Id`, `TeamA_Id`, `GoalsH`, `GoalsA`, `Date`, `Stadium`)
VALUES ('1', '4', '1', '2', '3', '07-11-2020', 'Signal Iduna Park'), ('2', '1', '2', '3', '3', '05-12-2020', 'Allianz
Arena'), ('3', '1', '3', '2', '1', '16-12-2020', 'Allianz Arena'), ('4', '1', '4', '4', '2', '06-03-2021', 'Allianz Arena'),
('5', '3', '1', '2', '3', '17-04-2021', 'Volsraven Arena'), ('6', '2', '1', '0', '1', '20-03-2021', 'RedBull Arena');
```

```
INSERT INTO `matches` (`Match_Id`, `TeamH_Id`, `TeamA_Id`, `GoalsH`, `GoalsA`, `Date`, `Stadium`)
VALUES ('7', '4', '3', '2', '0', '2021-01-03', 'Signal Iduna Park'), ('8', '3', '2', '2', '2', '2021-01-16', 'Volswagen
Arena'), ('9', '3', '4', '0', '2', '2021-04-14', 'Volswagen Arena'), ('10', '2', '4', '1', '3', '2021-01-09', 'Signal
Iduna Park'), ('11', '4', '2', '3', '2', '2021-05-16', 'Signal Iduna Park');
```

The database Diagram:



Relations:

1-1: Salary-Player

1-m: Coaches-Team, Players-Team, Match-Goals

n-m: Players-Goals, Teams-Matches

recursive: within Coaches tables: Coach_Id-Boss_Id, the coaches have an unique Coach_Id and the Boss_Id gives **the hierarchy**, **one coach can supervise another** coach, both having **the same entity class**

Constrains:

In users_admins: the ID can be either 1 or 2 (1-admin, 2-user)

```
ALTER TABLE users_admins ADD CONSTRAINT CHK_ID CHECK (ID = 1 OR ID = 2)
```

In coaches: the boss_id can be either 1,2 or 3 (1-main coach, 2-second coach, 3-auxiliary coach)

```
ALTER TABLE coaches ADD CONSTRAINT CHK_BOSS_ID CHECK (Boss_Id = 1 OR  
Boss_Id = 2 OR Boss_Id = 3)
```

In goals: the isOwnGoal attribute can be either yes or no

```
ALTER TABLE goals ADD CONSTRAINT CHK_OWN_GOAL CHECK (IsOwnGoal =  
"yes" OR IsOwnGoal = "no")
```

In goals: you can enter one some specific types of goals: regular, header ... etc.

```
ALTER TABLE goals ADD CONSTRAINT CHK_TYPE_GOAL CHECK (Type = "regular"  
OR Type = "header" OR Type = "wide" OR Type = "counter" OR Type = "cross" OR  
Type = "through-ball" OR Type = "penalty" OR Type = "set-piece")
```

Views

Goalscorers

*The view has created using the operation **JOIN**, the function **COUNT** and **GROUP BY, ORDER BY***

```
CREATE OR REPLACE VIEW goalscorers AS
SELECT DISTINCT COUNT(g.PlayerGoal_Id) AS NumberOfGoals, p.Surname,p.Name
FROM goals g JOIN players p ON g.PlayerGoal_Id = p.Player_Id
GROUP BY g.PlayerGoal_Id
ORDER BY NumberOfGoals DESC
```

NumberOfGoals	NumberOfAssists	Surname	Name
6	4	Robert	Lewandowski
3	1	Erling	Haaland
2	2	Thomas	Müller
2	2	Maximilian	Philipp
1	1	Emil	Forsberg
1	1	Marco	Reus
1	1	Wout	Weghorst
1	1	Kingsley	Coman
1	0	Leon	Goretzka

PlayerWithSameMV

The view has created using **SELF JOIN**, the function **COUNT** and **GROUP BY**,
ORDER BY

```
CREATE OR REPLACE VIEW PlayerWithSameMV AS
```

```
SELECT A.Name AS NamePlayer1, A.Surname AS SurnamePlayer1, B.Name AS  
NamePlayer2, B.Surname AS SurnamePlayer2,
```

```
A.MarketValue AS 'MV (mil euro)'
```

```
FROM players A, players B
```

```
WHERE A.Player_Id <> B.Player_Id
```

```
AND A.MarketValue = B.MarketValue
```

```
GROUP BY A.Age+B.Age+A.MarketValue
```

```
ORDER BY A.MarketValue DESC;
```

NamePlayer1	SurnamePlayer1	NamePlayer2	SurnamePlayer2	MV (mil euro)
Sané	Leroy	Goretzka	Leon	70
Upamecano	Dayot	Lewandowski	Robert	60
Reyna	Giovanni	Olmo	Dani	38
Guerreiro	Raphaël	Pavard	Benjamin	35
Guerreiro	Raphaël		Angeliño	35
	Angeliño	Müller	Thomas	35
Müller	Thomas	Pavard	Benjamin	35
Guerreiro	Raphaël	Müller	Thomas	35
	Angeliño	Pavard	Benjamin	35
Akanji	Manuel	Lacroix	Maxence	25
Baku	Ridle	Schlager	Xaver	22
Sörloth	Alexander	Neuer	Manuel	18
Kampl	Kevin	Orban	Willi	14
Brekalo	Josip	Brooks	John Anthony	12
Brooks	John Anthony	Henrichs	Benjamin	12
Brekalo	Josip	Henrichs	Benjamin	12

TotalAvgMV

The view has created using the operator **JOIN**, the functions **COUNT**, **SUM** and **ROUND** and **GROUP BY**, **ORDER BY**

```
CREATE OR REPLACE VIEW TotalAvgMV AS
SELECT DISTINCT teams.Name,SUM(players.MarketValue) AS TotalMV,
ROUND(SUM(players.MarketValue)/ COUNT(players.Player_Id)) AS AverageMV
FROM teams JOIN players ON teams.Team_Id = players.Team_Id
WHERE players.Team_Id = teams.Team_Id
GROUP BY teams.Team_Id
ORDER BY TotalMV DESC
```

Name	TotalMV	AverageMV
Bayern Munchen	573	52
Borussia Dortmund	379	34
RB Leipzig	285	28
Wolfsburg	176	16

GoalsOverAvg

The view has created using **SELECT WITHIN SELECT**, the operator **JOIN** and **ORDER BY**

```
CREATE OR REPLACE VIEW GoalsOverAvg AS
SELECT goals.Match_Id,matches.Date,matches.Stadium,players.Name AS
Scorer,goals.Time,goals.xG
FROM goals JOIN matches ON goals.Match_Id = matches.Match_Id JOIN players ON
players.Player_Id = goals.PlayerGoal_Id
WHERE goals.xG > (SELECT SUM(goals.xG)/ COUNT(goals.xG) FROM goals)
```

ORDER BY goals.xG DESC

Date	Stadium	Scorer	Time	xG
2021-03-06	Allianz Arena	Lewandowski	44	0.6
2020-11-07	Signal Iduna Park	Reus	45	0.4
2020-11-07	Signal Iduna Park	Haaland	83	0.4
2020-11-07	Signal Iduna Park	Coman	80	0.4
2020-11-07	Signal Iduna Park	Lewandowski	48	0.3
2020-12-05	Allianz Arena	Müller	34	0.3
2021-04-17	Volkswagen Arena	Weghorst	35	0.3
2021-03-06	Allianz Arena	Haaland	9	0.3

GoalsWithNoAssist

The view has created using, the operator **INNER JOIN**, the **IS NULL** and **ORDER BY**

CREATE OR REPLACE VIEW GoalsWithNoAssist AS

SELECT players.Name,players.Surname,goals.Type,goals.xG

FROM goals INNER JOIN players on goals.PlayerGoal_Id = players.Player_Id

WHERE goals.PlayerAssist_Id IS NULL

ORDER BY goals.xG DESC

Name	Surname	Type	xG
Lewandowski	Robert	penalty	0.6
Lewandowski	Robert	regular	0.3
Haaland	Erling	counter	0.3
Goretzka	Leon	regular	0.15
Haaland	Erling	counter	0.1

TeamStadiums

The view has created using, the operator **JOIN** and **GROUP BY, ORDER BY**

```
CREATE OR REPLACE VIEW TeamStadiums AS
```

```
SELECT teams.Name, matches.Stadium
```

```
FROM teams JOIN matches on (matches.TeamH_Id = teams.Team_Id or  
matches.TeamA_Id = teams.Team_Id)
```

```
WHERE teams.Team_Id = matches.TeamH_Id
```


```
GROUP BY teams.Name
```

```
ORDER BY teams.Team_Id
```

Name	Stadium
Bayern Munchen	Allianz Arena
RB Leipzig	RedBull Arena
Wolfsburg	Volswagen Arena
Borussia Dortmund	Signal Iduna Park

The WEB Application

The Login Page



[More info : Transfermarkt Official Website](#)

Username:

Password:

The Admin Main Page

Selection from database

Update the database

Insert in the database

Delete from the database

Welcome to the football database

Choose from the options on the left to access the data



[Go back to the Login Page](#)

The current user is : **Laurentiu**

The current login is : **AN ADMIN**

The User Main Page

[Selection from database](#)

Welcome to the football database

Choose from the options on the left to access the data



[Go back to the Login Page](#)

The current user is : **Andrei**
The current login is : **A USER**

The main difference is that the **Admin** can apply all the modification to the database: **INSERTION, UPDATE, DELETE** and view all the data. The **User** can only view the database, basically only by applying the **SELECT**.

If the user does not exist or the password is incorrect, the client is redirected to a warning page, where there is a BACK TO LOGIN link.

Connecting to database ...

The username Laurentiu or password 12345 incorrect or inexistant!
Go back to index page! [Go back to the Login Page](#)

There is also a page where, if by unknown circumstances, a user gets on an Admin account, he is redirected when trying to access the INSERT, UPDATE or DELETE.

```
session_start();
$usr = $_SESSION["usr"];

# verify is the account is Admin, if not, send the user to an info page
$sql = "SELECT users_admins.ID FROM users_admins Where users_admins.Name = '$usr' ";
$result = $con-> query($sql);

if ($result-> num_rows > 0){
    if($result-> fetch_assoc()['ID'] == 2){
        header("Location: notAdmin.php");
        exit;
    }
}
```

notAdmin.php:

```
<?php

    echo("<br>");
    echo("<br>");
    echo("<br>");
    echo("<br>");
    echo(" You are on a user account!");
    echo("<br>");
    echo("You need to be an admin to be allowed to make changes!");
    echo("<br>");
    echo("<br>");
    echo("Go back to the login and enter a admin account, if you have one.");

?>
```

The selection menu:

Players data
Coaches data
Teams data
Matches data
Goals data
Goalcorers View
Comparing MarketValues View
Average and Total MarketValues View
Goals with xG over average View
Goals with no Player on Assist View
Team and their Stadiums View

Example: Matches data

Players data
Coaches data
Teams data
Matches data
Goals data
Goalcorers View
Comparing MarketValues View
Average and Total MarketValues View
Goals with xG over average View
Goals with no Player on Assist View
Team and their Stadiums View

Connecting to database ... Connected!

Matches

Match_Id	TeamH_Id	TeamA_Id	GoalsH	GoalsA	Date	Stadium
1	4	1	2	3	2020-11-07	Signal Iduna Park
2	1	2	3	3	2020-12-05	Allianz Arena
3	1	3	2	1	2020-12-16	Allianz Arena
4	1	4	4	2	2021-03-06	Allianz Arena
5	3	1	2	3	2021-04-17	Volkswagen Arena
6	2	1	0	1	2021-04-03	Red Bull Arena
7	4	3	2	0	2021-01-03	Signal Iduna Park
8	3	2	2	2	2021-01-16	Volkswagen Arena
9	3	4	0	2	2021-04-14	Volkswagen Arena
10	2	4	1	3	2021-01-09	Signal Iduna Park
11	4	2	3	2	2021-05-16	Signal Iduna Park

Example: Goalscorers and GoalsOverAvg Views

- [Players data](#)
- [Coaches data](#)
- [Teams data](#)
- [Matches data](#)
- [Goals data](#)
- [Goalcorers View](#)
- [Comparing MarketValues View](#)
- [Average and Total MarketValues View](#)
- [Goals with xG over average View](#)
- [Goals with no Player on Assist View](#)
- [Team and their Stadiums View](#)

Connecting to database ... Connected!

Goalscorers

NumberOfGoals	NumberOfAssists	Surname	Name
6	4	Robert	Lewandowski
3	1	Erling	Haaland
2	2	Thomas	Müller
2	2	Maximilian	Philipp
1	1	Emil	Forsberg
1	1	Marco	Reus
1	1	Wout	Weghorst
1	1	Kingsley	Coman
1	0	Leon	Goretzka

- [Players data](#)
- [Coaches data](#)
- [Teams data](#)
- [Matches data](#)
- [Goals data](#)
- [Goalcorers View](#)
- [Comparing MarketValues View](#)
- [Average and Total MarketValues View](#)
- [Goals with xG over average View](#)
- [Goals with no Player on Assist View](#)
- [Team and their Stadiums View](#)

Connecting to database ... Connected!

Goals scored with an xG over averxG, showing the most clinical GoalScorers

Match_Id	Date	Stadium	Scorer	Time	xG
4	2021-03-06	Allianz Arena	Lewandowski	44	0.6
1	2020-11-07	Signal Iduna Park	Reus	45	0.4
1	2020-11-07	Signal Iduna Park	Haaland	83	0.4
1	2020-11-07	Signal Iduna Park	Coman	80	0.4
1	2020-11-07	Signal Iduna Park	Lewandowski	48	0.3
2	2020-12-05	Allianz Arena	Müller	34	0.3
5	2021-04-17	Volswagen Arena	Weghorst	35	0.3
4	2021-03-06	Allianz Arena	Haaland	9	0.3

Example: Goals with no Assist Player View

Players data	Connecting to database ... Connected!
Coaches data	
Teams data	
Matches data	
Goals data	Goals with no player on the assist, therefore those are goals where the opposition gave away the ball
Goalcorers View	
Comparing MarketValues View	
Average and Total MarketValues View	
Goals with xG over average View	
Goals with no Player on Assist View	
Team and their Stadiums View	

Name	Surname	Type	xG
Lewandowski	Robert	penalty	0.6
Lewandowski	Robert	regular	0.3
Haaland	Erling	counter	0.3
Goretzka	Leon	regular	0.15
Haaland	Erling	counter	0.1

The UPDATE menu:

Update Players
Update Teams
Update Coaches
Update Goals
Update Matches

Examples: Update Player, Match

[Update Players](#)

[Update Teams](#)

[Update Coaches](#)

[Update Goals](#)

[Update Matches](#)

Connecting to database ... Connected!

Update player data

Select the player name

Neuer Manuel	▼
Neuer Manuel	▲
Davies Alphonso	
Hernández Lucas	
Boateng Jérôme	
Pavard Benjamin	
Kimmich Joshua	
Goretzka Leon	
Müller Thomas	
Coman Kingsley	
Sané Leroy	
Lewandowski Robert	
Orban Willi	

[Update Players](#)

[Update Teams](#)

[Update Coaches](#)

[Update Goals](#)

[Update Matches](#)

Update match data

Select the match date and stadium

2020-11-07 Signal Iduna Park	▼
2020-11-07 Signal Iduna Park	
2020-12-05 Allianz Arena	
2020-12-16 Allianz Arena	
2021-03-06 Allianz Arena	
2021-04-17 Volkswagen Arena	
2021-04-03 RedBull Arena	
2021-01-03 Signal Iduna Park	
2021-01-16 Volkswagen Arena	
2021-04-14 Volkswagen Arena	
2021-01-09 Signal Iduna Park	
2021-05-16 Signal Iduna Park	

Update player data

Insert data

ID of player: 1

Name:

Surname:

Position:

Age:

MarketValue:

Submit

The INSERT menu:

Insert Player
Insert Team
Insert Coach
Insert Match
Insert Goal

Example: Insert Goal, Match

[Insert Player](#)

[Insert Team](#)

[Insert Coach](#)

[Insert Match](#)

[Insert Goal](#)

PlayerGoal_Id

PlayerAssist_Id

Match_Id

Time

xG:

Type

IsOwnGoal: ☐ yes ☐ no

[Insert Player](#)

[Insert Team](#)

[Insert Coach](#)

[Insert Match](#)

[Insert Goal](#)

Match_Id :

TeamH_Id:

TeamA_Id:

GoalsH:

GoalsA:

Date of birth: Month: Day: Year:

Stadium :

The DELETE menu:




















Delete Player
Delete Coach
Delete Team
Delete Goal
Delete Match

Examples: Delete Player,Team












	Connecting to database ... Connected!
	Select the player name
Delete Player	<div>Neuer Manuel</div> <div>Neuer Manuel</div> <div>Davies Alphonso</div> <div>Hernández Lucas</div> <div>Boateng Jérôme</div> <div>Pavard Benjamin</div> <div>Kimmich Joshua</div> <div>Goretzka Leon</div> <div>Müller Thomas</div> <div>Coman Kingsley</div>
Delete Coach	
Delete Team	
Delete Goal	
Delete Match	

	Connecting to database ... Connected!
	Select the team name
Delete Player	<div>Bayern Munchen</div> <div>Bayern Munchen</div> <div>RB Leipzig</div> <div>Wolfsburg</div> <div>Borussia Dortmund</div>
Delete Coach	
Delete Team	
Delete Goal	
Delete Match	

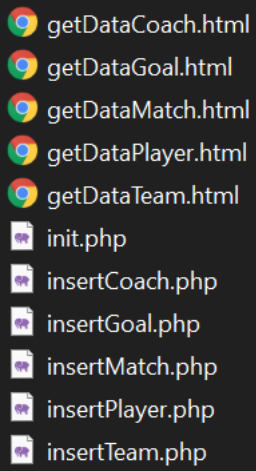
The files in the project:

 delete	5/13/2021 12:46 PM	File folder	
 images	5/14/2021 4:57 PM	File folder	
 insertion	5/13/2021 12:31 PM	File folder	
 selection	5/14/2021 3:54 PM	File folder	
 update	5/12/2021 7:40 PM	File folder	
 delete.html	5/14/2021 8:25 PM	Chrome HTML Docu...	2 KB
 index.html	5/14/2021 7:55 PM	Chrome HTML Docu...	2 KB
 init.php	5/12/2021 8:06 AM	PHP Source File	1 KB
 insert.html	5/14/2021 8:20 PM	Chrome HTML Docu...	2 KB
 leftFrame.php	5/13/2021 1:03 PM	PHP Source File	1 KB
 leftFrameAdmin.html	5/14/2021 8:34 PM	Chrome HTML Docu...	1 KB
 leftFrameUser.html	5/14/2021 8:00 PM	Chrome HTML Docu...	1 KB
 main.php	5/14/2021 4:28 PM	PHP Source File	1 KB
 main1.php	5/14/2021 8:19 PM	PHP Source File	2 KB
 middleFrame.html	5/14/2021 7:57 PM	Chrome HTML Docu...	1 KB
 notAdmin.php	5/12/2021 5:44 PM	PHP Source File	1 KB
 rightFrame.php	5/14/2021 4:34 PM	PHP Source File	1 KB
 select.html	5/14/2021 8:15 PM	Chrome HTML Docu...	3 KB
 update.html	5/14/2021 8:23 PM	Chrome HTML Docu...	2 KB

delete:

 deleteCoach.php
 deleteGoal.php
 deleteMatch.php
 deletePlayer.php
 deleteTeam.php
 init.php
 selectCoach.php
 selectGoal.php
 selectMatch.php
 selectPlayer.php
 selectTeam.php

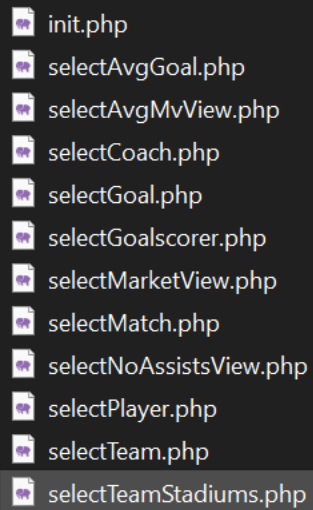
insertion:



A list of files for insertion, each preceded by a small icon representing the file type (HTML or PHP). The files are: getDataCoach.html, getDataGoal.html, getDataMatch.html, getDataPlayer.html, getDataTeam.html, init.php, insertCoach.php, insertGoal.php, insertMatch.php, insertPlayer.php, and insertTeam.php.

- getDataCoach.html
- getDataGoal.html
- getDataMatch.html
- getDataPlayer.html
- getDataTeam.html
- init.php
- insertCoach.php
- insertGoal.php
- insertMatch.php
- insertPlayer.php
- insertTeam.php

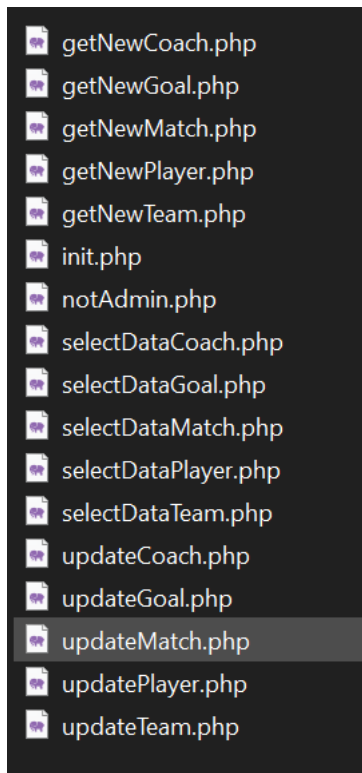
selection:



A list of files for selection, each preceded by a small icon representing the file type (PHP). The files are: init.php, selectAvgGoal.php, selectAvgMvView.php, selectCoach.php, selectGoal.php, selectGoalscorer.php, selectMarketView.php, selectMatch.php, selectNoAssistsView.php, selectPlayer.php, selectTeam.php, and selectTeamStadiums.php. The last file, selectTeamStadiums.php, is highlighted with a dark background.

- init.php
- selectAvgGoal.php
- selectAvgMvView.php
- selectCoach.php
- selectGoal.php
- selectGoalscorer.php
- selectMarketView.php
- selectMatch.php
- selectNoAssistsView.php
- selectPlayer.php
- selectTeam.php
- selectTeamStadiums.php

update:



The idea of the project:

The idea came from my passion about the sport and the fact that nowadays, football has begun a whole industry, where data collection, storing and processing have begun a huge business. As such, a football database is something very common in big consulting companies, which collect data and transform them into valuable information.

All the data comes from “Transfermarkt” official website and are real, actual data, which I took from their site and put into my database.

I hope I can develop more complex applications starting with this idea and that my passion can become something I can work for.

References:

<https://www.w3schools.com/> - tutorials on HTML, CSS and PHP

<https://www.freecodecamp.org/> - many examples of function and applications

www.codegrepper.com – examples of PHP code

www.mode.com – SQL tutorials and examples

<https://code.tutsplus.com/tutorials> - HTML and PHP pages

www.sqlzoo.net – examples of SQL queries and ideas for the database

www.tutorialspoint.com – HTML and PHP examples

docs.microsoft.com – SQL statements and examples

<https://www.php.net/manual/en/index.php> - examples of PHP code: connecting to database and many others

DB_LaboratoryGuide – material from Teams files

<https://www.transfermarkt.com/> - the source of all data in my football database and a site a usually use for football related information