

## Milestone 4

### Code Implementation

Soccer Game Manager is a website that tracks one season of the UEFA Champion's League, an annual football (soccer) competition that is played by the greatest football clubs in Europe. The website has a database that contains tables with information for the players, clubs, teams, coaches, sponsors, agents, stadiums, and games involved.

A user can see each table and change the tables by adding, deleting, or updating tuples. The user is also able to identify specific information by selecting only tables or attributes that match their condition. In addition, statistics for the competition such as min, max, average, can be calculated within the different tables. For example, a user can find all players who play a certain position or see which coaches in each country have the least amount of experience.

By using Soccer Game Manager, a user has all the information they need about their favourite tournament in a simple to use, all-in-one website.

The ISA relationship for stage was removed and stage was changed into a single entity with the attribute StageType that contains the children of the former ISA relationship. This was done to avoid a trivial ISA relationship. A new ISA relationship was created with Football\_Person as the parent and Player, Coach as the children. Player and coach now inherit their ID primary key from Football\_Person.

## **A list of all queries used in this project:**

### **Display tables:**

```
SELECT * FROM Player
SELECT * FROM Team
SELECT * FROM Club
SELECT * FROM Coach_C1
SELECT * FROM Coach_C2
SELECT * FROM Agent
SELECT * FROM Sponsor
SELECT * FROM Game
SELECT * FROM Stadium_PNAS
SELECT * FROM Stadium_PCI
SELECT * FROM Stadium_PCO
SELECT * FROM Stage
SELECT * FROM PlayerPlaysForTeam
SELECT * FROM teamPlaysInGame
SELECT * FROM GamelsInStage
SELECT * FROM Player p, PlayerPlaysForTeam pt
WHERE p.PID = pt.PID
SELECT DISTINCT g.GID, g.address, g.postal_code, g.date_played,
g.referee, g.winner, g.goals_scored, gis.SID
FROM Game g, GamelsInStage gis
WHERE g.GID = gis.GID
ORDER BY g.date_played
```

### **Insertion:**

```
INSERT INTO Team (ClubID, team_name) VALUES ('ARS', 'UBC')
```

### **Update:**

```
UPDATE Club
SET country = 'Canada'
WHERE clubID = 'JUV' AND country = 'Italy'

UPDATE Club
```

```
SET city = 'Vancouver'  
WHERE clubID = 'JUV' AND city = 'Turin'
```

```
UPDATE Club  
SET ownership = 'Public'  
WHERE clubID = 'JUV' AND ownership = 'Private'
```

#### Deletion:

```
DELETE FROM Agent WHERE AID = 'A1'
```

#### Selection:

```
SELECT club_name  
FROM Club  
WHERE Country = 'Spain'
```

#### Projection:

```
SELECT GID, winner, goals_scored  
FROM Game
```

#### Join:

```
SELECT DISTINCT *  
FROM teamPlaysInGame G, Team T  
WHERE G.goals>1 AND G.team_name=T.team_name
```

#### Division:

```
SELECT DISTINCT T.team_name  
FROM teamPlaysInGame T  
WHERE NOT EXISTS (SELECT SID  
                   FROM Stage MINUS SELECT G2.SID  
                   FROM GamelsInStage G2  
                   WHERE  
                   G2.team_name=T.team_name)
```

#### Aggregation with Group By:

```
SELECT nationality, MIN(years_of_experience) AS Years_of_experience
FROM Coach_C2 GROUP BY nationality
SELECT nationality, MAX(years_of_experience) AS
Years_of_experience FROM Coach_C2 GROUP BY nationality
```

#### Aggregation with Having:

```
SELECT position, MIN(date_of_birth) AS date_of_birth
FROM Player p, PlayerPlaysForTeam pt
WHERE p.PID = pt.PID AND $year-pt.year_started >= $years_spent
GROUP BY position
HAVING COUNT(p.PID) >= $entries
```

#### Nested Aggregation with Group By:

```
CREATE VIEW AvgGoalsPerStage(SID, goals_scored) AS
  SELECT gis2.SID, AVG(g2.goals_scored)
  FROM Game g2, GamelsInStage gis2
  WHERE g2.GID = gis2.GID
  GROUP BY gis2.SID
```

```
SELECT DISTINCT g.GID, gis.SID, g.goals_scored
FROM Game g, GamelsInStage gis
WHERE g.GID = gis.GID AND g.goals_scored >= ALL(SELECT
  goals_scored FROM AvgGoalsPerStage)
ORDER BY gis.SID desc
```

## Basic queries (INSERT, UPDATE, DELETE)

**INSERT:** You can insert new teams to Team table:

**Before:**

CLUBID	TEAM_NAME
ARS	Arsenal
ASM	AS Monaco
ATM	Atletico Madrid
BAS	Basel
BMU	Bayern Munich
BVB	Borussia Dortmund
CHE	Chelsea
FCB	Barcelona
FCP	FC Porto
JUV	Juventus
LEV	Bayer 04 Leverkusen
MCI	Manchester City
PSG	Paris Saint-Germain
RMA	Real Madrid
SCH	FC Schalke 04
SHA	Shakhtar Donetsk

The number of tuples in Team Table: 16

The # of tuples in Team table now is 16

**Run the query:**

### Insert Teams into Table

ClubID:

Team Name:

After:

CLUBID	TEAM_NAME
ARS	Arsenal
ARS	UBC
ASM	AS Monaco
ATM	Atletico Madrid
BAS	Basel
BMU	Bayern Munich
BVB	Borussia Dortmund
CHE	Chelsea
FCB	Barcelona
FCP	FC Porto
JUV	Juventus
LEV	Bayer 04 Leverkusen
MCI	Manchester City
PSG	Paris Saint-Germain
RMA	Real Madrid
SCH	FC Schalke 04
SHA	Shakhtar Donetsk

A new tuple added

The number of tuples in Team Table: 17

The # of tuples in Team table is increased by 1 now

**UPDATE:** You can update any information (must identify the tuple by providing its ClubID) in Club table:

**Before:**

CLUBID	CLUB_NAME	COUNTRY	CITY	OWNERSHIP
JUV	Juventus	Italy	Turin	Private
BVB	Borussia Dortmund	Germany	Dortmund	Private
ARS	Arsenal	England	London	Private
ASM	AS Monaco	France	Monaco	Private
ATM	Atletico Madrid	Spain	Madrid	Private
LEV	Bayer 04 Leverkusen	Germany	Leverkusen	Private
SCH	FC Schalke 04	Germany	Gelsenkirchen	Public
RMA	Real Madrid	Spain	Madrid	Public
PSG	Paris Saint-Germain	France	Paris	Private
CHE	Chelsea	England	London	Private
MCI	Manchester City	England	Manchester	Private
FCB	Barcelona	Spain	Barcelona	Public
BAS	Basel	Switzerland	Basel	Private
FCP	FC Porto	Portugal	Porto	Public
SHA	Shakhtar Donetsk	Ukraine	Lviv	Private
BMU	Bayern Munich	Germany	Munich	Public

Old  
values

**Run the query:**

<p>Update Clubs in Table</p> <p>The values are case sensitive and must be entered exactly as they appear in the table.</p> <p>You are free to select which attribute you want to update.</p> <p>Table: <input type="text" value="country"/></p> <p>ClubID: <input type="text" value="juv"/></p> <p>Old Value: <input type="text" value="Italy"/></p> <p>New Value: <input type="text" value="Canada"/></p> <p><input type="button" value="Update"/></p>	<p>Update Clubs in Table</p> <p>The values are case sensitive and must be entered exactly as they appear in the table.</p> <p>You are free to select which attribute you want to update.</p> <p>Table: <input type="text" value="city"/></p> <p>ClubID: <input type="text" value="juv"/></p> <p>Old Value: <input type="text" value="Turin"/></p> <p>New Value: <input type="text" value="Vancouver"/></p> <p><input type="button" value="Update"/></p>	<p>Update Clubs in Table</p> <p>The values are case sensitive and must be entered exactly as they appear in the table.</p> <p>You are free to select which attribute you want to update.</p> <p>Table: <input type="text" value="ownership"/></p> <p>ClubID: <input type="text" value="juv"/></p> <p>Old Value: <input type="text" value="Private"/></p> <p>New Value: <input type="text" value="Public"/></p> <p><input type="button" value="Update"/></p>
---	---	---

Here enter new values

After:

CLUBID	CLUB_NAME	COUNTRY	CITY	OWNERSHIP
JUV	Juventus	Canada	Vancouver	Public
BVB	Borussia Dortmund	Germany	Dortmund	Private
ARS	Arsenal	England	London	Private
ASM	AS Monaco	France	Monaco	Private
ATM	Atletico Madrid	Spain	Madrid	Private
LEV	Bayer 04 Leverkusen	Germany	Leverkusen	Private
SCH	FC Schalke 04	Germany	Gelsenkirchen	Public
RMA	Real Madrid	Spain	Madrid	Public
PSG	Paris Saint-Germain	France	Paris	Private
CHE	Chelsea	England	London	Private
MCI	Manchester City	England	Manchester	Private
FCB	Barcelona	Spain	Barcelona	Public
BAS	Basel	Switzerland	Basel	Private
FCP	FC Porto	Portugal	Porto	Public
SHA	Shakhtar Donetsk	Ukraine	Lviv	Private
BMU	Bayern Munich	Germany	Munich	Public

Values  
updated



**DELETE:** You can delete any agents in Agent table; at the meantime, any tuples in Player table that reference the deleted agent will also be deleted. (**ON DELETE CASCADE**)

**Before:**

AID	FIRST_NAME	LAST_NAME
A1	Mino	Raiola
A2	Jorge	Mendes
A3	Jorge	Messi
A4	Volker	Struth
A5	Jonathan	Barnett
A6	Jose	Otin
A7	Fernando	Felicevich
A8	Giuliano	Bertolucci
A9	Thomas	Kroth
A10	Pini	Zahavi

**A1 exists**

The number of tuples in Agent Table: 10

The number of tuples in Player Table: 80

**Before deletion, there are 10 tuples in Agent table, and 80 tuples in Player table.**

**Run the query:**

## Delete Agents from Table

AgentID:

Delete

After:

AID	FIRST_NAME	LAST_NAME
A2	Jorge	Mendes
A3	Jorge	Messi
A4	Volker	Struth
A5	Jonathan	Barnett
A6	Jose	Otin
A7	Fernando	Felicevich
A8	Giuliano	Bertolucci
A9	Thomas	Kroth
A10	Pini	Zahavi

A1 is deleted

The number of tuples in Agent Table: 9

The number of tuples in Player Table: 67

After deletion, there are only **9** tuples in Agent table, and **67** tuples in Player table!

## Selection

### Club table before selection

Table Club

Retrieved data:

CLUBID	CLUB_NAME	COUNTRY	CITY	OWNERSHIP
JUV	Juventus	Italy	Turin	Private
BVB	Borussia Dortmund	Germany	Dortmund	Private
ARS	Arsenal	England	London	Private
ASM	AS Monaco	France	Monaco	Private
ATM	Atletico Madrid	Spain	Madrid	Private
LEV	Bayer 04 Leverkusen	Germany	Leverkusen	Private
SCH	FC Schalke 04	Germany	Gelsenkirchen	Public
RMA	Real Madrid	Spain	Madrid	Public
PSG	Paris Saint-Germain	France	Paris	Private
CHE	Chelsea	England	London	Private
MCI	Manchester City	England	Manchester	Private
FCB	Barcelona	Spain	Barcelona	Public
BAS	Basel	Switzerland	Basel	Private
FCP	FC Porto	Portugal	Porto	Public
SHA	Shakhtar Donetsk	Ukraine	Lviv	Private
BMU	Bayern Munich	Germany	Munich	Public

### Selection GUI

Select Table and Attributes

Attribute:

Table:

Condition(s):

### Table after selection

Retrieved data:

CLUB_NAME
Atletico Madrid
Real Madrid
Barcelona

## Projection

Game table before projection

Table Game

Retrieved data:

GID	ADDRESS	POSTAL_CODE	DATE_PLAYED	REFEREE	WINNER	GOALS_SCORED
G1	Corso Gaetano Scirea 50	10151	24-FEB-15	Antonio Lahoz	JUV	6
G2	Highbury House 75	51211	25-FEB-15	Deniz Aytekin	ASM	6
G3	Paseo Virgen del Puerto 67	28005	17-MAR-15	Nicola Rizzoli	ATM	7
G4	Av. de Concha Espina	28036	10-MAR-15	Damir Skomina	RMA	9
G5	24 Rue du Commandant Guilbaud	75016	17-FEB-15	Cuneyt Cakir	PSG	6
G6	Ar??stides Maillol 12	8028	18-MAR-15	Gianluca Rocchi	FCB	4
G7	Via Futebol Clube do Porto	43504	10-MAR-15	Jonas Eriksson	FCP	6
G8	25 Werner-Heisenberg-Allee	80939	11-MAR-15	William Collum	BMU	7
G9	Corso Gaetano Scirea 50	10151	14-APR-15	Pavel Kralovec	JUV	1
G10	Paseo Virgen del Puerto 67	28005	14-APR-15	Milorad Mazic	RMA	1
G11	24 Rue du Commandant Guilbaud	75016	21-APR-15	Mark Clattenburg	FCB	6
G12	Via Futebol Clube do Porto	43504	21-APR-15	Carlos Carballo	BMU	11
G13	Av. de Concha Espina	28036	13-MAY-15	Martin Atkinson	JUV	5
G14	25 Werner-Heisenberg-Allee	80939	06-MAY-15	Nicola Rizzoli	FCB	8
G15	Ar??stides Maillol 12	8028	06-JUN-15	Cuneyt Cakir	FCB	4

Projection GUI

## Select Columns in a Table (Projection)

Attribute:

Table:

## Game table after projection

Retrieved data:

GID	WINNER	GOALS_SCORED
G1	JUV	6
G2	ASM	6
G3	ATM	7
G4	RMA	9
G5	PSG	6
G6	FCB	4
G7	FCP	6
G8	BMU	7
G9	JUV	1
G10	RMA	1
G11	FCB	6
G12	BMU	11
G13	JUV	5
G14	FCB	8
G15	FCB	4

Join  
teamPlaysInGame table before join

Table teamPlaysInGame

Retrieved data:

CLUBID	TEAM_NAME	GID	GOALS
JUV	Juventus	G1	5
BVB	Borussia Dortmund	G1	1
ARS	Arsenal	G2	3
ASM	AS Monaco	G2	3
LEV	Bayer 04 Leverkusen	G3	3
ATM	Atletico Madrid	G3	4
SCH	FC Schalke 04	G4	4
RMA	Real Madrid	G4	5
PSG	Paris Saint-Germain	G5	3
CHE	Chelsea	G5	3
MCI	Manchester City	G6	1
FCB	Barcelona	G6	3
BAS	Basel	G7	1
FCP	FC Porto	G7	5
SHA	Shakhtar Donetsk	G8	0
BMU	Bayern Munich	G8	7
JUV	Juventus	G9	1
ASM	AS Monaco	G9	0
ATM	Atletico Madrid	G10	0
RMA	Real Madrid	G10	1

PSG	Paris Saint-Germain	G11	1
FCB	Barcelona	G11	5
FCP	FC Porto	G12	4
BMU	Bayern Munich	G12	7
JUV	Juventus	G13	3
RMA	Real Madrid	G13	2
FCB	Barcelona	G14	5
BMU	Bayern Munich	G14	3
JUV	Juventus	G15	1
FCB	Barcelona	G15	3

Team table before join

Table Team

Retrieved data:

CLUBID	TEAM_NAME
ARS	Arsenal
ASM	AS Monaco
ATM	Atletico Madrid
BAS	Basel
BMU	Bayern Munich
BVB	Borussia Dortmund
CHE	Chelsea
FCB	Barcelona
FCP	FC Porto
JUV	Juventus
LEV	Bayer 04 Leverkusen
MCI	Manchester City
PSG	Paris Saint-Germain
RMA	Real Madrid
SCH	FC Schalke 04
SHA	Shakhtar Donetsk

## Join GUI

### Join Tables

Attribute: \*

First Table: teamPlaysInGame G

Second Table: Team T

Condition: G.goals>1 AND G.team\_name=T.team\_name

Join

Condition: G.goals>1 AND G.team\_name=T.team\_name

## Table after join

Retrieved data:

CLUBID	TEAM_NAME	GID	GOALS	CLUBID	TEAM_NAME
JUV	Juventus	G1	5	JUV	Juventus
ARS	Arsenal	G2	3	ARS	Arsenal
ASM	AS Monaco	G2	3	ASM	AS Monaco
LEV	Bayer 04 Leverkusen	G3	3	LEV	Bayer 04 Leverkusen
ATM	Atletico Madrid	G3	4	ATM	Atletico Madrid
SCH	FC Schalke 04	G4	4	SCH	FC Schalke 04
RMA	Real Madrid	G4	5	RMA	Real Madrid
PSG	Paris Saint-Germain	G5	3	PSG	Paris Saint-Germain
CHE	Chelsea	G5	3	CHE	Chelsea
FCB	Barcelona	G6	3	FCB	Barcelona
FCP	FC Porto	G7	5	FCP	FC Porto
BMU	Bayern Munich	G8	7	BMU	Bayern Munich
FCB	Barcelona	G11	5	FCB	Barcelona
FCP	FC Porto	G12	4	FCP	FC Porto
BMU	Bayern Munich	G12	7	BMU	Bayern Munich
JUV	Juventus	G13	3	JUV	Juventus
RMA	Real Madrid	G13	2	RMA	Real Madrid
FCB	Barcelona	G14	5	FCB	Barcelona
BMU	Bayern Munich	G14	3	BMU	Bayern Munich
FCB	Barcelona	G15	3	FCB	Barcelona



Division

teamPlaysInGame table before division

Table teamPlaysInGame

Retrieved data:

CLUBID	TEAM_NAME	GID	GOALS
JUV	Juventus	G1	5
BVB	Borussia Dortmund	G1	1
ARS	Arsenal	G2	3
ASM	AS Monaco	G2	3
LEV	Bayer 04 Leverkusen	G3	3
ATM	Atletico Madrid	G3	4
SCH	FC Schalke 04	G4	4
RMA	Real Madrid	G4	5
PSG	Paris Saint-Germain	G5	3
CHE	Chelsea	G5	3
MCI	Manchester City	G6	1
FCB	Barcelona	G6	3
BAS	Basel	G7	1
FCP	FC Porto	G7	5
SHA	Shakhtar Donetsk	G8	0
BMU	Bayern Munich	G8	7
JUV	Juventus	G9	1
ASM	AS Monaco	G9	0
ATM	Atletico Madrid	G10	0
RMA	Real Madrid	G10	1

PSG	Paris Saint-Germain	G11	1
FCB	Barcelona	G11	5
FCP	FC Porto	G12	4
BMU	Bayern Munich	G12	7
JUV	Juventus	G13	3
RMA	Real Madrid	G13	2
FCB	Barcelona	G14	5
BMU	Bayern Munich	G14	3
JUV	Juventus	G15	1
FCB	Barcelona	G15	3

## GameIsInStage table before division

CLUBID	TEAM_NAME	GID	SID
JUV	Juventus	G1	S_1/8
BVB	Borussia Dortmund	G1	S_1/8
ARS	Arsenal	G2	S_1/8
ASM	AS Monaco	G2	S_1/8
LEV	Bayer 04 Leverkusen	G3	S_1/8
ATM	Atletico Madrid	G3	S_1/8
SCH	FC Schalke 04	G4	S_1/8
RMA	Real Madrid	G4	S_1/8
PSG	Paris Saint-Germain	G5	S_1/8
CHE	Chelsea	G5	S_1/8
MCI	Manchester City	G6	S_1/8
FCB	Barcelona	G6	S_1/8
BAS	Basel	G7	S_1/8
FCP	FC Porto	G7	S_1/8

SHA	Shakhtar Donetsk	G8	S_1/8
BMU	Bayern Munich	G8	S_1/8
JUV	Juventus	G9	S_1/4
ASM	AS Monaco	G9	S_1/4
ATM	Atletico Madrid	G10	S_1/4
RMA	Real Madrid	G10	S_1/4
PSG	Paris Saint-Germain	G11	S_1/4
FCB	Barcelona	G11	S_1/4
FCP	FC Porto	G12	S_1/4
BMU	Bayern Munich	G12	S_1/4
JUV	Juventus	G13	S_1/2
RMA	Real Madrid	G13	S_1/2
FCB	Barcelona	G14	S_1/2
BMU	Bayern Munich	G14	S_1/2
JUV	Juventus	G15	S_Final
FCB	Barcelona	G15	S_Final

## Division GUI

### Divide Tables

First Table:

Second Table:

## Division result

Retrieved data:

TEAM_NAME
Barcelona
Juventus

Aggregation queries.

### Aggregation with Group By

Before running the query for the least experienced coach of each nationality:

CID	FIRST_NAME	LAST_NAME	NATIONALITY	YEARS_OF_EXPERIENCE
C1	Massimiliano	Allegri	Ita	12
C2	Jurgen	Klopp	Ger	8
C3	Arsen	Wenger	Fra	22
C4	Leonardo	Jardim	Por	1
C5	Diego	Simeone	Arg	10
C6	Roger	Schmidt	Ger	1
C7	Erwin	Smith	Ger	2
C8	Zinedine	Zidane	Fra	1
C9	Laurent	Blanc	Fra	1
C10	Guus	Hiddink	Ned	22
C11	Manuel	Pellegrini	Chi	8
C12	Luis	Enrique	Esp	2
C13	Levi	Ackerman	Fra	1
C14	Jose	Mourinho	Por	10
C15	Alexander	Schevchenko	Ukr	2
C16	Josep	Guardiola	Esp	8

After:

<b>Coaches</b> Find years of experience of the <input type="text" value="least"/> experienced coaches of each nationality <input type="button" value="Submit"/>	<b>Players</b> Find dates of birth of the oldest players who have spent more than <input type="text" value=""/> years at their club, for each position with at least <input type="text" value=""/> such entries <input type="button" value="Submit"/>	<b>Games</b> Find the games with more scored goals than the average in each stage of the tournament <input type="button" value="Submit"/>
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Retrieved data:

NATIONALITY	YEARS_OF_EXPERIENCE
Por	1
Ned	22
Ukr	2
Esp	2
Ita	12
Ger	1
Fra	1
Arg	10
Chi	8

### Aggregation with Having:

Before the query for finding the dates of birth of the oldest players who have spent more than 10 years at their club, for each position with at least 2 such entries (a portion of the table is in the screenshot):

PID	AID	FIRST_NAME	LAST_NAME	DATE_OF_BIRTH	HEALTH_STATUS	NATIONAL_TEAM	POSITION	PID	CLUBID	TEAM_NAME	YEAR_STARTED
P70	A7	Fabiano	Freitas	29-FEB-88	H	Bra	GK	P70	FCP	FC Porto	2014
P71	A5	Luiz	Adriano	12-APR-87	H	Bra	FW	P71	SHA	Shakhtar Donetsk	2011
P72	A4	Yaroslav	Rakitskyi	03-AUG-89	H	Ukr	DF	P72	SHA	Shakhtar Donetsk	2010
P73	A1	Douglas	Costa	14-SEP-90	H	Bra	MF	P73	SHA	Shakhtar Donetsk	2009
P74	A9	Oleksandr	Kucher	22-OCT-82	H	Ukr	DF	P74	SHA	Shakhtar Donetsk	2010
P75	A8	Andriy	Pyatov	28-JUN-84	H	Ukr	GK	P75	SHA	Shakhtar Donetsk	2008
P76	A1	Mario	Gotze	03-JUN-92	H	Ger	FW	P76	BMU	Bayern Munich	2009
P77	A8	Jerome	Boateng	03-SEP-88	H	Ger	DF	P77	BMU	Bayern Munich	2008
P78	A5	David	Alaba	24-JUN-92	N	Aut	DF	P78	BMU	Bayern Munich	2010
P79	A4	Bastian	Schweinsteiger	01-AUG-84	H	Ger	MF	P79	BMU	Bayern Munich	2011
P80	A2	Manuel	Neuer	27-MAR-86	H	Ger	GK	P80	BMU	Bayern Munich	2012
P1	A1	Paul	Pogba	14-MAR-93	N	Fra	MF	P1	JUV	Juventus	2012
P2	A1	Leonardo	Bonucci	01-MAY-87	H	Ita	DF	P2	JUV	Juventus	2010
P3	A10	Gianluigi	Buffon	28-JAN-78	H	Ita	GK	P3	JUV	Juventus	2001
P4	A2	Andrea	Pirlo	19-MAY-79	H	Ita	MF	P4	JUV	Juventus	2011
P5	A3	Giorgio	Chiellini	14-AUG-84	H	Ita	DF	P5	JUV	Juventus	2005
P6	A1	Marco	Reus	31-MAY-89	N	Ger	MF	P6	BVB	Borussia Dortmund	2012
P7	A2	Henrikh	Mkhitaryan	21-JAN-89	H	Arm	MF	P7	BVB	Borussia Dortmund	2013
P8	A10	Ilkay	Gundogan	24-OCT-90	H	Ger	MF	P8	BVB	Borussia Dortmund	2011
P9	A7	Mats	Hummels	16-DEC-88	H	Ger	DF	P9	BVB	Borussia Dortmund	2009
P10	A3	Roman	Weidenfeller	16-AUG-80	H	Ger	GK	P10	BVB	Borussia Dortmund	2002
P11	A4	Olivier	Giroud	30-SEP-86	H	Fra	FW	P11	ARS	Arsenal	2013
P12	A5	Alexis	Sanchez	19-DEC-88	H	Chi	FW	P12	ARS	Arsenal	2010
P13	A6	Hector	Bellerin	19-MAR-95	H	Esp	DF	P13	ARS	Arsenal	2011
P14	A7	Danny	Welbeck	26-NOV-90	N	Eng	FW	P14	ARS	Arsenal	2006
P15	A8	David	Ospina	31-AUG-88	H	Col	GK	P15	ARS	Arsenal	2006
P16	A9	Anthony	Martial	05-DEC-95	H	Fra	FW	P16	ASM	AS Monaco	2013

After:

Players

Find dates of birth of the oldest players who have spent more than  years at their club, for each position with at least  such entries

Submit

POSITION	DATE_OF_BIRTH
GK	28-JAN-78
DF	18-AUG-80
FW	30-JAN-81
MF	19-MAY-79

Nested Aggregation with Group By:

Before finding the games with more scored goals than the average in each stage of the tournament:

GID	ADDRESS	POSTAL_CODE	DATE_PLAYED	REFEREE	WINNER	GOALS_SCORED	SID
G5	24 Rue du Commandant Guilbaud	75016	17-FEB-15	Cuneyt Cakir	PSG	6	S_1/8
G1	Corso Gaetano Scirea 50	10151	24-FEB-15	Antonio Lahoz	JUV	6	S_1/8
G2	Highbury House 75	51211	25-FEB-15	Deniz Aytekin	ASM	6	S_1/8
G4	Av. de Concha Espina	28036	10-MAR-15	Damir Skomina	RMA	9	S_1/8
G7	Via Futebol Clube do Porto	43504	10-MAR-15	Jonas Eriksson	FCP	6	S_1/8
G8	25 Werner-Heisenberg-Allee	80939	11-MAR-15	William Collum	BMU	7	S_1/8
G3	Paseo Virgen del Puerto 67	28005	17-MAR-15	Nicola Rizzoli	ATM	7	S_1/8
G6	Ar??stides Maillol 12	8028	18-MAR-15	Gianluca Rocchi	FCB	4	S_1/8
G9	Corso Gaetano Scirea 50	10151	14-APR-15	Pavel Kralovec	JUV	1	S_1/4
G10	Paseo Virgen del Puerto 67	28005	14-APR-15	Milorad Mazic	RMA	1	S_1/4
G11	24 Rue du Commandant Guilbaud	75016	21-APR-15	Mark Clattenburg	FCB	6	S_1/4
G12	Via Futebol Clube do Porto	43504	21-APR-15	Carlos Carballo	BMU	11	S_1/4
G14	25 Werner-Heisenberg-Allee	80939	06-MAY-15	Nicola Rizzoli	FCB	8	S_1/2
G13	Av. de Concha Espina	28036	13-MAY-15	Martin Atkinson	JUV	5	S_1/2
G15	Ar??stides Maillol 12	8028	06-JUN-15	Cuneyt Cakir	FCB	4	S_Final

After:

GID	SID	GOALS_SCORED
G3	S_1/8	7
G4	S_1/8	9
G8	S_1/8	7
G12	S_1/4	11
G14	S_1/2	8