

# DATABASE 20 COURSEWORK

## FIFA WORLD CUP 2010

- Data Dictionary :

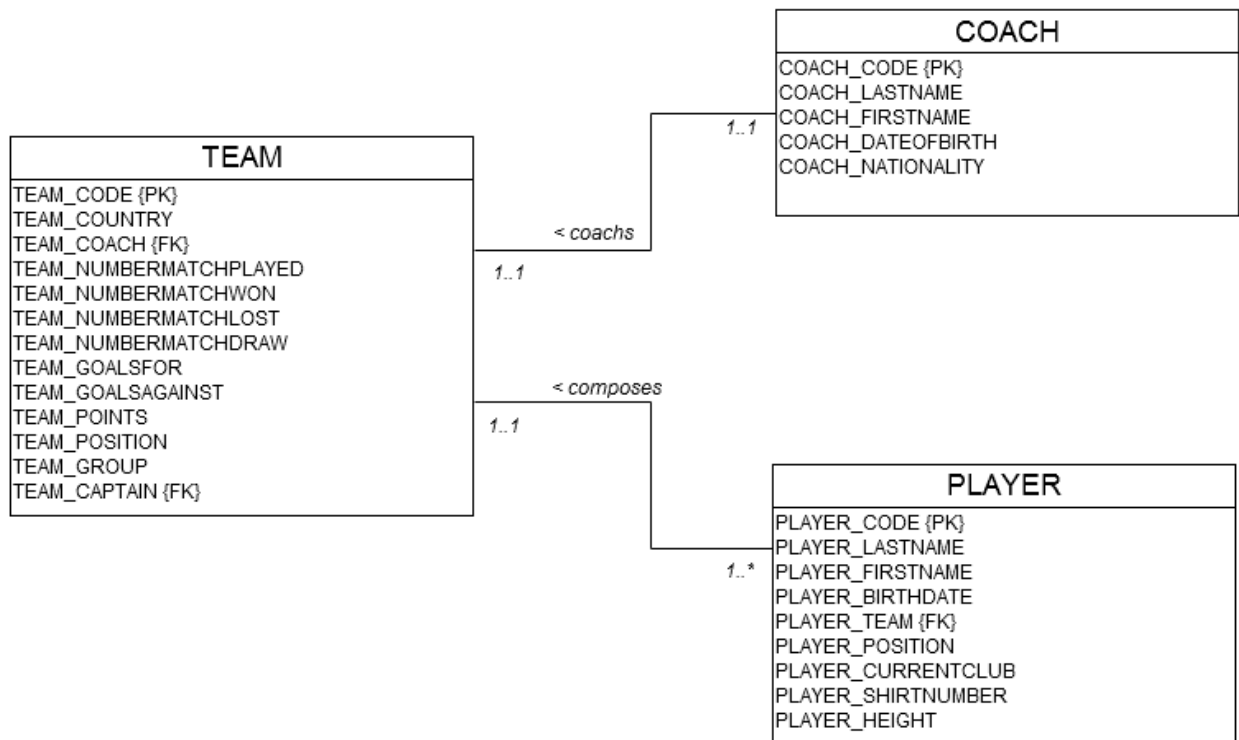
Table Name	Attribute Name	Contents	Data Type	Format	Range	Required	PK or FK	FK Ref Table
TEAM	TEAM_CODE	Team Code	NUMERIC(3)	###	001-999	Y	PK	
	TEAM_COUNTRY	Country	VARCHAR(25)	XXXXXXXXX	NA	Y		
	TEAM_COACH	Coach Code	NUMERIC(3)	###	001-999	Y	FK	COACH
	TEAM_NUMBERMATCHPLAYED	Number of match played	NUMERIC(1)	#	1-9	Y		
	TEAM_NUMBERMATCHWON	Number of match won	NUMERIC(1)	#	1-9	Y		
	TEAM_NUMBERMATCHLOST	Number of match lost	NUMERIC(1)	#	1-9	Y		
	TEAM_NUMBERMATCHDRAW	Number of match draw	NUMERIC(1)	#	1-9	Y		
	TEAM_GOALSFOR	Number of goals for	NUMERIC(2)	##	01-99	Y		
	TEAM_GOALSAGAINST	Number of goals against	NUMERIC(2)	##	01-99	Y		
	TEAM_POINTS	Number of points	NUMERIC(2)	##	01-99	Y		
	TEAM_POSITION	Position	NUMERIC(3)	###	001-999	Y		
	TEAM_GROUP	Group Letter	CHAR(1)	X	A-H	Y		
	TEAM_CAPTAIN	Player Code	NUMERIC(4)	####	0001-9999	Y	FK	PLAYER
PLAYER	PLAYER_CODE	Player Code	NUMERIC(4)	####	0001-9999	Y	PK	
	PLAYER_LASTNAME	Last Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	PLAYER_FIRSTNAME	First Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	PLAYER_BIRTHDATE	Date of Birth	DATE	DD-MON-YYYY	NA	Y		
	PLAYER_TEAM	Team Code	NUMERIC(3)	###	001-999	Y	FK	TEAM
	PLAYER_POSITION	Position	VARCHAR(25)	XXXXXXXXX	NA	Y		
	PLAYER_CURRENTCLUB	Current Club	VARCHAR(25)	XXXXXXXXX	NA	Y		
	PLAYER_SHIRTNUMBER	Number of shirt	NUMERIC(2)	##	01-99	Y		
	PLAYER_HEIGHT	Height	NUMERIC(3)	###	001-999	Y		
STADIUM	STADIUM_CODE	Stadium Code	NUMERIC(2)	##	01-99	Y	PK	
	STADIUM_NAME	Name	VARCHAR(25)	XXXXXXXXX	NA	Y		
	STADIUM_LOCATION	Location	VARCHAR(50)	XXXXXXXXX	NA	Y		
	STADIUM_CAPACITY	Capacity	NUMERIC(6)	#####	000001-999999	Y		
MATCH	MATCH_CODE	Match Code	NUMERIC(3)	###	001-999	Y	PK	
	MATCH_KIND	Match Kind	VARCHAR(25)	XXXXXXXXX	NA	Y		
	MATCH_WINNERTEAM	Team Code	NUMERIC(3)	###	001-999	Y	FK	TEAM
	MATCH_LOSSTEAM	Team Code	NUMERIC(3)	###	001-999	Y	FK	TEAM
	MATCH_TIME	Time	TIME	HH:MM:SS	NA	Y		
	MATCH_WINNERTEAMSORE	Winner Team Score	NUMERIC(2)	##	01-99	Y		
	MATCH_LOSSTEAMSORE	Loss Team Score	NUMERIC(2)	##	01-99	Y		
	MATCH_REFEREE	Referee Code	NUMERIC(3)	###	001-999	Y	FK	REFEREE
	MATCH_REFASS1	Referee Code	NUMERIC(3)	###	001-999	Y	FK	REFEREE
	MATCH_REFASS2	Referee Code	NUMERIC(3)	###	001-999	Y	FK	REFEREE
	MATCH_REF4TH	Referee Code	NUMERIC(3)	###	001-999	Y	FK	REFEREE
	MATCH_REFASSSUP	Referee Code	NUMERIC(3)	###	001-999	Y	FK	REFEREE
	MATCH_STADIUM	Stadium Code	NUMERIC(2)	##	01-99	Y	FK	STADIUM
REFEREE	REFEREE_CODE	Referee Code	NUMERIC(3)	###	001-999	Y	PK	
	REFEREE_LASTNAME	Last Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	REFEREE_FIRSTNAME	First Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	REFEREE_NATIONALITY	Nationality	VARCHAR(25)	XXXXXXXXX	NA	Y		
	REFEREE_DATEOFBIRTH	Date of Birth	DATE	DD-MON-YYYY	NA	Y		
	REFEREE_EXPERIENCE	International since	YEAR	YYYY	NA	Y		
COACH	COACH_CODE	Coach Code	NUMERIC(3)	###	001-999	Y	PK	
	COACH_LASTNAME	Last Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	COACH_FIRSTNAME	First Name	VARCHAR(40)	XXXXXXXXX	NA	Y		
	COACH_DATEOFBIRTH	Date of Birth	DATE	DD-MON-YYYY	NA	Y		
	COACH_NATIONALITY	Nationality	VARCHAR(25)	XXXXXXXXX	NA	Y		
GOAL	GOAL_CODE	Goal Code	NUMERIC(3)	###	001-999	Y	PK	
	GOAL_MATCH	Match Code	NUMERIC(3)	###	001-999	Y	FK	MATCH
	GOAL_PLAYER	Player Code	NUMERIC(4)	####	0001-9999	Y	FK	PLAYER
	GOAL_TIME	Goal Time	TIME	HH:MM:SS	NA	Y		

- Entity Relationship Diagram (ERD) :

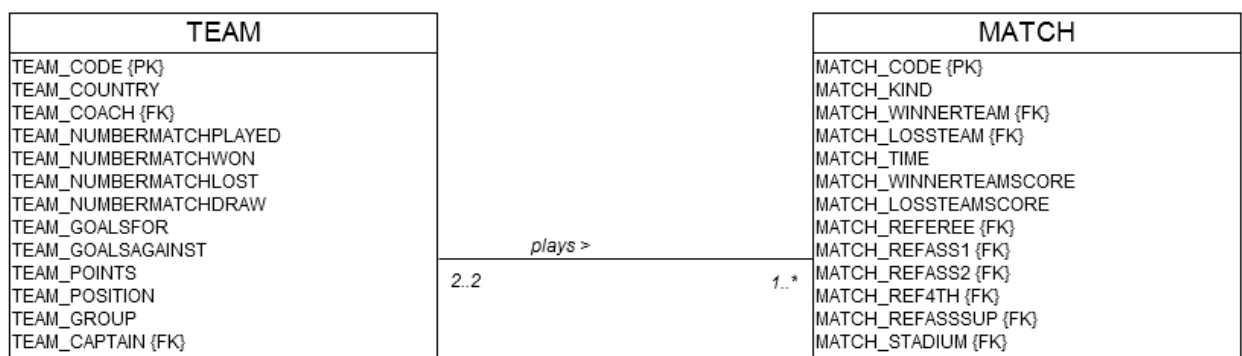
→ Description of operations :

- each team is composed of players and has a coach to train the player
- two teams play a match against each other
- every match is arbitrated by some referees
- a match takes place in a defined stadium
- a goal is marked by a specified player during a specified match
- one player of a team is the captain of this one

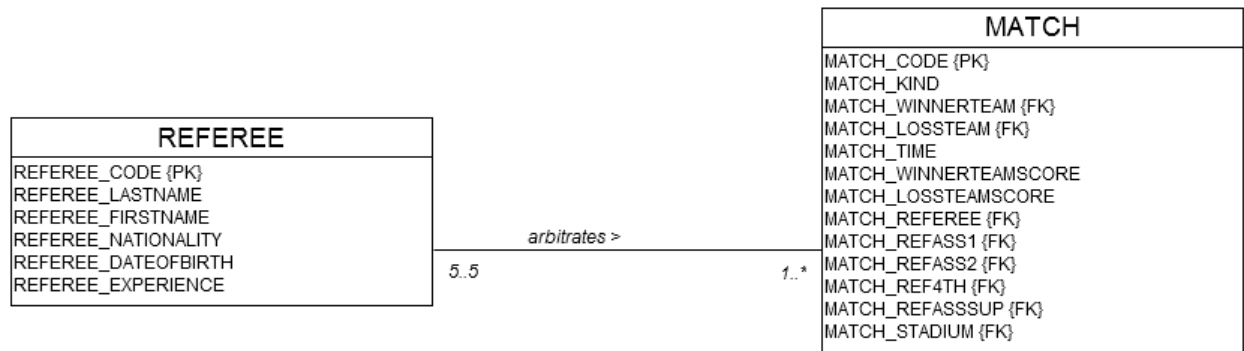
→ First FIFA World Cup 2010 ERD segment :



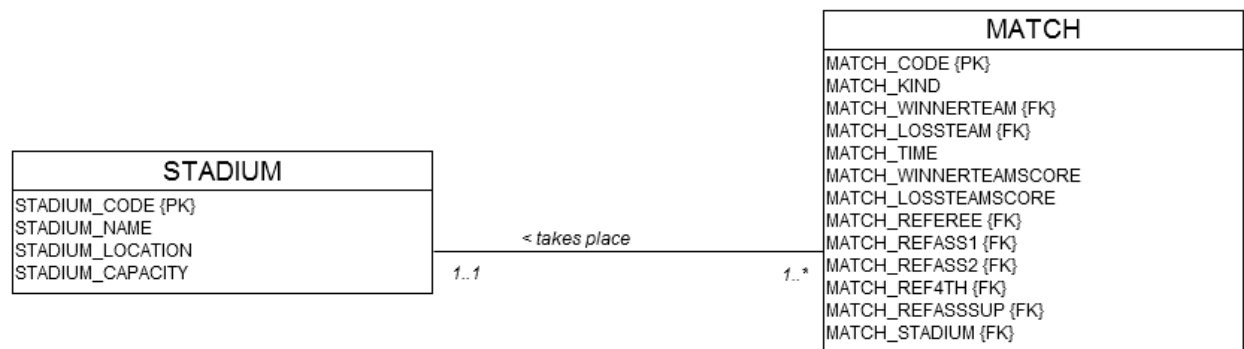
→ Second FIFA World Cup 2010 ERD segment :



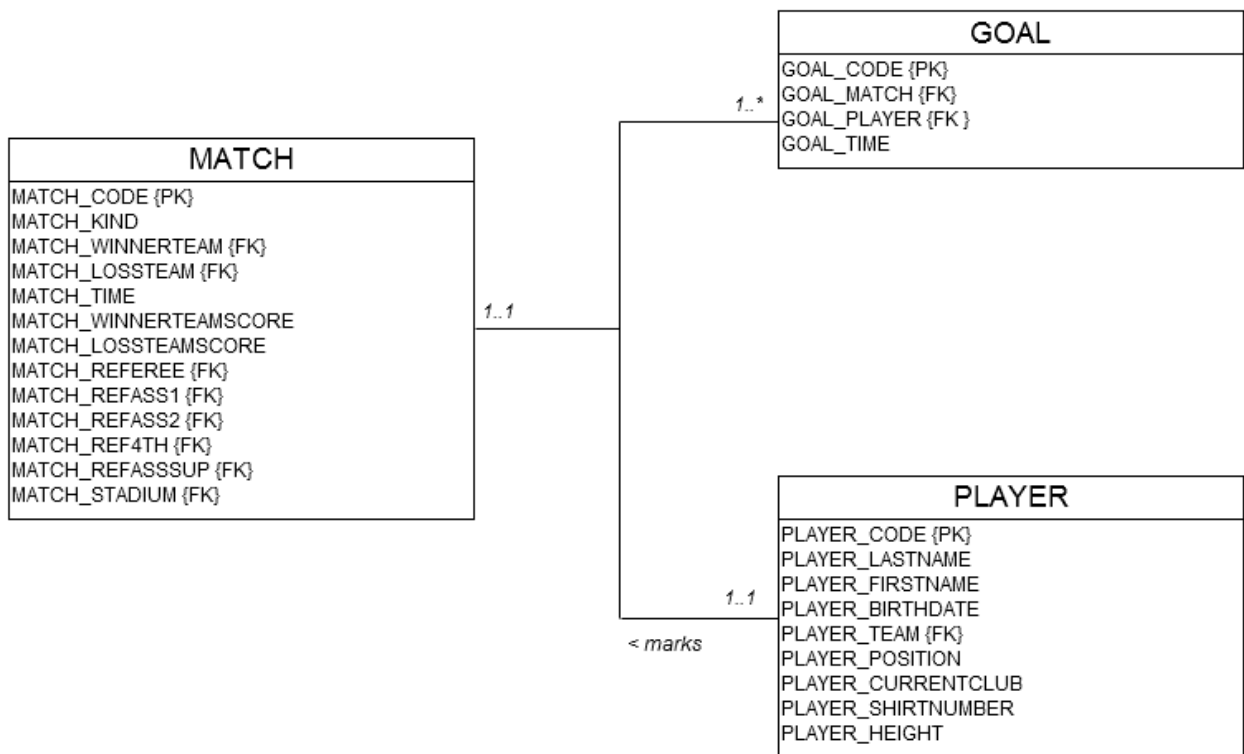
→ Third FIFA World Cup 2010 ERD segment :



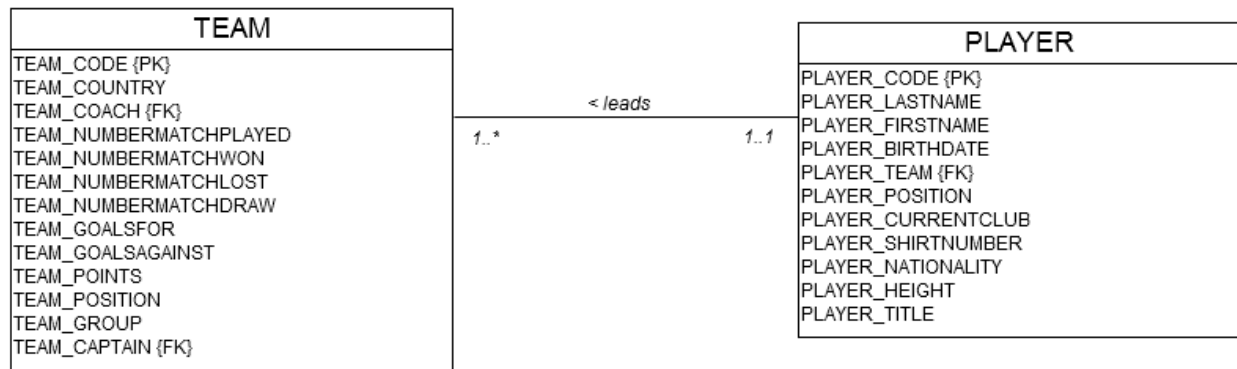
→ Fourth FIFA World Cup 2010 ERD segment :



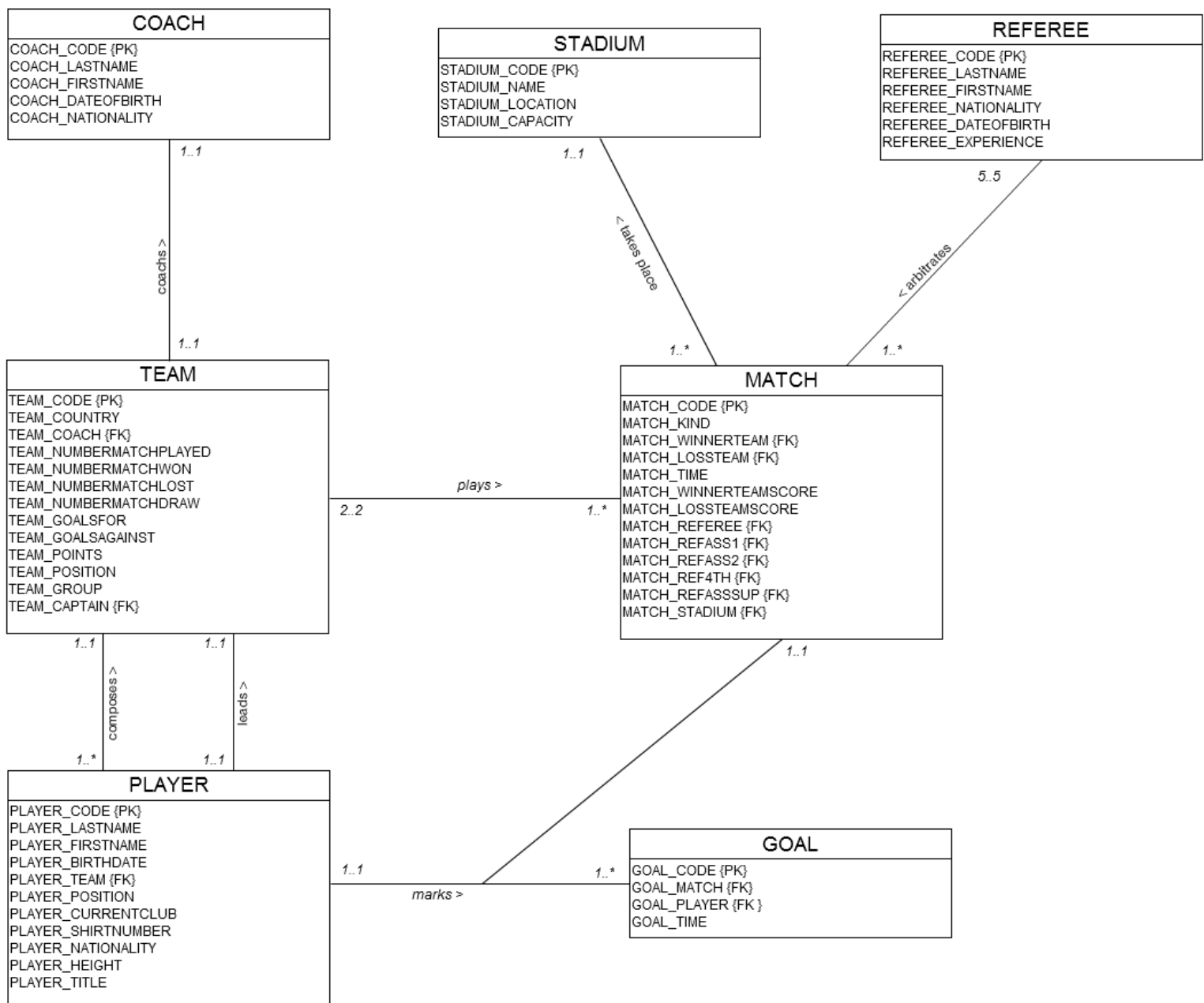
→ Fifth FIFA World Cup 2010 ERD segment :



→ Sixth FIFA World Cup 2010 ERD segment :



→ Completed FIFA World Cup 2010 ERD Segment :



- Normalization :

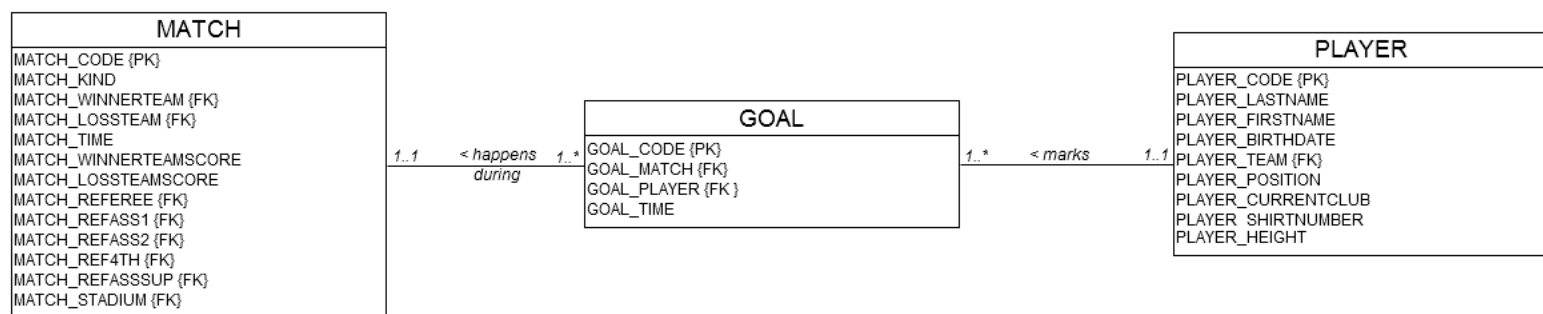
→ Avoid the redundancy of the nationality/country which appear in PLAYER, COACH, REFEREE and TEAM tables : create a new table COUNTRY which has a relationship with each table quoted before.

COUNTRY
COUNTRY_CODE
COUNTRY_NAME

COUNTRY\_CODE : NUMERIC(3), required, primary key

COUNTRY\_NAME : VARCHAR(50), required

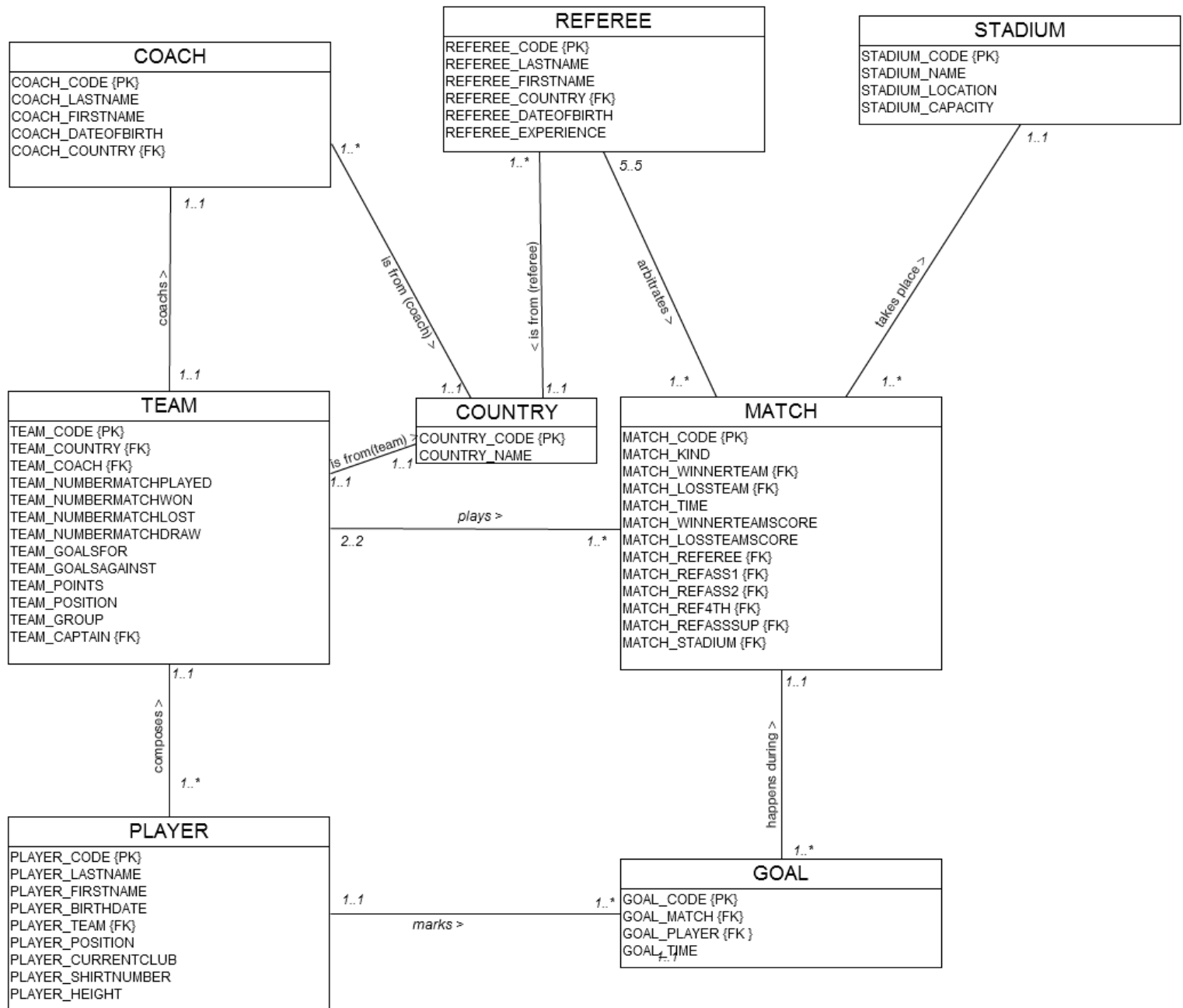
→ Make the ternary relationship more simple :



→ Adapt the data PLAYER\_POSITION type from VARCHAR(25) to ENUM('goalkeeper','defender','midfielder','forward')

→ Adapt the data MATCH\_KIND type from VARCHAR(25) to ENUM('groupstage','roundof16','quarterfinals','semifinals','final')

- Post normalization ERD :



- Data definition :

```
CREATE DATABASE FIFA2010WORLDCUP;  
USE FIFA2010WORLDCUP;
```

```
DROP TABLE COUNTRY;  
DROP TABLE STADIUM;  
DROP TABLE REFEREE;  
DROP TABLE COACH;  
DROP TABLE TEAM;  
DROP TABLE GAME;  
DROP TABLE PLAYER;  
DROP TABLE GOAL;
```

```
CREATE TABLE COUNTRY (  
  COUNTRY_CODE NUMERIC(3) PRIMARY KEY,  
  COUNTRY_NAME VARCHAR(50) NOT NULL);
```

```
CREATE TABLE STADIUM (  
  STADIUM_CODE NUMERIC(2) PRIMARY KEY,  
  STADIUM_NAME VARCHAR(25) NOT NULL,  
  STADIUM_LOCATION VARCHAR(50) NOT NULL,  
  STADIUM_CAPACITY NUMERIC(6) NOT NULL);
```

```
CREATE TABLE REFEREE (  
  REFEREE_CODE NUMERIC(3) PRIMARY KEY,  
  REFEREE_LASTNAME VARCHAR(40) NOT NULL,  
  REFEREE_FIRSTNAME VARCHAR(40) NOT NULL,  
  REFEREE_DATEOFBIRTH DATE NOT NULL,  
  REFEREE_EXPERIENCE YEAR NOT NULL,  
  REFEREE_COUNTRY NUMERIC(3),  
  INDEX(REFEREE_COUNTRY),  
  CONSTRAINT FK_REFEREE_COUNTRY FOREIGN KEY(REFEREE_COUNTRY) REFERENCES  
  COUNTRY(COUNTRY_CODE));
```

```
CREATE TABLE COACH (  
  COACH_CODE NUMERIC(3) PRIMARY KEY,  
  COACH_LASTNAME VARCHAR(40) NOT NULL,  
  COACH_FIRSTNAME VARCHAR(40) NOT NULL,  
  COACH_DATEOFBIRTH DATE NOT NULL,  
  COACH_COUNTRY NUMERIC(3),  
  INDEX(COACH_COUNTRY),  
  CONSTRAINT FK_COACH_COUNTRY FOREIGN KEY(COACH_COUNTRY) REFERENCES  
  COUNTRY(COUNTRY_CODE));
```

```
CREATE TABLE TEAM (  
  TEAM_CODE NUMERIC(3) PRIMARY KEY,  
  TEAM_COUNTRY NUMERIC(3),  
  TEAM_COACH NUMERIC(3),  
  TEAM_NUMBERMATCHPLAYED NUMERIC(1) NOT NULL,  
  TEAM_NUMBERMATCHWON NUMERIC(1) NOT NULL,  
  TEAM_NUMBERMATCHLOST NUMERIC(1) NOT NULL,  
  TEAM_NUMBERMATCHDRAW NUMERIC(1) NOT NULL,  
  TEAM_GOALSFOR NUMERIC(2) NOT NULL,  
  TEAM_GOALSAGAINST NUMERIC(2) NOT NULL,  
  TEAM_POINTS NUMERIC(2) NOT NULL,  
  TEAM_POSITION NUMERIC(3) NOT NULL,  
  TEAM_GROUP CHAR(1) NOT NULL,  
  INDEX(TEAM_COUNTRY),  
  INDEX(TEAM_COACH),  
  CONSTRAINT FK_TEAM_COUNTRY FOREIGN KEY (TEAM_COUNTRY) REFERENCES  
  COUNTRY(COUNTRY_CODE),  
  CONSTRAINT FK_TEAM_COACH FOREIGN KEY (TEAM_COACH) REFERENCES COACH(COACH_CODE));
```

```
CREATE TABLE PLAYER (  
  PLAYER_CODE NUMERIC(4) PRIMARY KEY,  
  PLAYER_LASTNAME VARCHAR(40) NOT NULL,  
  PLAYER_FIRSTNAME VARCHAR(40) NOT NULL,  
  PLAYER_BIRTHDATE DATE NOT NULL,
```

```

PLAYER_TEAM NUMERIC(3),
PLAYER_POSITION ENUM('goalkeeper','defender','midfielder','forward') NOT NULL,
PLAYER_CURRENTCLUB VARCHAR(25) NOT NULL,
PLAYER_HEIGHT NUMERIC(3) NOT NULL,
PLAYER_SHIRTNUMBER NUMERIC(2) NOT NULL,
INDEX(PLAYER_TEAM),
CONSTRAINT FK_PLAYER_TEAM FOREIGN KEY (PLAYER_TEAM) REFERENCES TEAM(TEAM_CODE));

```

```

CREATE TABLE GAME (
GAME_CODE NUMERIC(3) PRIMARY KEY,
GAME_KIND ENUM('groupstage','roundof16','quarterfinals','semifinals','final') NOT NULL,
GAME_WINNERTEAM NUMERIC(3),
GAME_LOSSTEAM NUMERIC(3),
GAME_TIME TIME NOT NULL,
GAME_DATE DATE NOT NULL,
GAME_WINNERTEAMSORE NUMERIC(2) NOT NULL,
GAME_LOSTEAMSORE NUMERIC(2) NOT NULL,
GAME_REFEREE NUMERIC(3),
GAME_REFASIST1 NUMERIC(3),
GAME_REFASIST2 NUMERIC(3),
GAME_REF4TH NUMERIC(3),
GAME_REFASISTSUP NUMERIC(3),
GAME_STADIUM NUMERIC(2),
INDEX(GAME_WINNERTEAM),
INDEX(GAME_LOSSTEAM),
INDEX(GAME_REFEREE),
INDEX(GAME_REFASIST1),
INDEX(GAME_REFASIST2),
INDEX(GAME_REF4TH),
INDEX(GAME_REFASISTSUP),
INDEX(GAME_STADIUM),
CONSTRAINT FK_GAME_WINNERTEAM FOREIGN KEY (GAME_WINNERTEAM) REFERENCES
TEAM(TEAM_CODE),
CONSTRAINT FK_GAME_LOSSTEAM FOREIGN KEY (GAME_LOSSTEAM) REFERENCES TEAM(TEAM_CODE),
CONSTRAINT FK_GAME_REFEREE FOREIGN KEY (GAME_REFEREE) REFERENCES
REFEREE(REFEREE_CODE),
CONSTRAINT FK_GAME_REFASIST1 FOREIGN KEY (GAME_REFASIST1) REFERENCES
REFEREE(REFEREE_CODE),
CONSTRAINT FK_GAME_REFASIST2 FOREIGN KEY (GAME_REFASIST2) REFERENCES
REFEREE(REFEREE_CODE),
CONSTRAINT FK_GAME_REF4TH FOREIGN KEY (GAME_REF4TH) REFERENCES REFEREE(REFEREE_CODE),
CONSTRAINT FK_GAME_REFASISTSUP FOREIGN KEY (GAME_REFASISTSUP) REFERENCES
REFEREE(REFEREE_CODE),
CONSTRAINT FK_GAME_STADIUM FOREIGN KEY (GAME_STADIUM) REFERENCES STADIUM(STADIUM_CODE));

```

```

CREATE TABLE GOAL (
GOAL_CODE NUMERIC(3) PRIMARY KEY,
GOAL_GAME NUMERIC(3),
GOAL_PLAYER NUMERIC(4),
GOAL_TIME TIME NOT NULL,
INDEX(GOAL_GAME),
INDEX(GOAL_PLAYER),
CONSTRAINT FK_GOAL_GAME FOREIGN KEY (GOAL_GAME) REFERENCES GAME(GAME_CODE),
CONSTRAINT FK_GOAL_PLAYER FOREIGN KEY (GOAL_PLAYER) REFERENCES PLAYER(PLAYER_CODE));

```

```

ALTER TABLE TEAM
ADD TEAM_CAPTAIN NUMERIC(4),
ADD INDEX(TEAM_CAPTAIN),
ADD CONSTRAINT FK_TEAM_CAPTAIN FOREIGN KEY (TEAM_CAPTAIN) REFERENCES
PLAYER(PLAYER_CODE);

```



```

mysql> CREATE DATABASE FIFA2010WORLDcup;
Query OK, 1 row affected (0.00 sec)

mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| default_schema |
| fifa2010worldcup |
| mysql |
| test |
+-----+
5 rows in set (0.00 sec)

mysql> USE FIFA2010WORLDcup;
Database changed
mysql> CREATE TABLE COUNTRY (
  -> COUNTRY_CODE NUMERIC(3) PRIMARY KEY,
  -> COUNTRY_NAME VARCHAR(50) NOT NULL);
Query OK, 0 rows affected (0.09 sec)

mysql> CREATE TABLE STADIUM (
  -> STADIUM_CODE NUMERIC(2) PRIMARY KEY,
  -> STADIUM_NAME VARCHAR(25) NOT NULL,
  -> STADIUM_LOCATION VARCHAR(50) NOT NULL,
  -> STADIUM_CAPACITY NUMERIC(6) NOT NULL);
Query OK, 0 rows affected (0.10 sec)

mysql> CREATE TABLE REFEREE (
  -> REFEREE_CODE NUMERIC(3) PRIMARY KEY,
  -> REFEREE_LASTNAME VARCHAR(40) NOT NULL,
  -> REFEREE_FIRSTNAME VARCHAR(40) NOT NULL,
  -> REFEREE_DATEOFBIRTH DATE NOT NULL,
  -> REFEREE_EXPERIENCE_YEAR NOT NULL,
  -> REFEREE_COUNTRY NUMERIC(3),
  -> INDEX(REFEREE_COUNTRY),
  -> CONSTRAINT FK_REFEREE_COUNTRY FOREIGN KEY(REFEREE_COUNTRY) REFERENCES COUNTRY(COUNTRY_CODE));
Query OK, 0 rows affected (0.07 sec)

mysql> CREATE TABLE COACH (
  -> COACH_CODE NUMERIC(3) PRIMARY KEY,
  -> COACH_LASTNAME VARCHAR(40) NOT NULL,
  -> COACH_FIRSTNAME VARCHAR(40) NOT NULL,
  -> COACH_DATEOFBIRTH DATE NOT NULL,
  -> COACH_COUNTRY NUMERIC(3),
  -> INDEX(COACH_COUNTRY),
  -> CONSTRAINT FK_COACH_COUNTRY FOREIGN KEY(COACH_COUNTRY) REFERENCES COUNTRY(COUNTRY_CODE));
Query OK, 0 rows affected (0.12 sec)

mysql> CREATE TABLE TEAM (
  -> TEAM_CODE NUMERIC(3) PRIMARY KEY,
  -> TEAM_COUNTRY NUMERIC(3),
  -> TEAM_COACH NUMERIC(3),
  -> TEAM_NUMBERMATCHPLAYED NUMERIC(1) NOT NULL,
  -> TEAM_NUMBERMATCHWON NUMERIC(1) NOT NULL,
  -> TEAM_NUMBERMATCHLOST NUMERIC(1) NOT NULL,
  -> TEAM_NUMBERMATCHDRAW NUMERIC(1) NOT NULL,
  -> TEAM_GOALSFOR NUMERIC(2) NOT NULL,
  -> TEAM_GOALSAGAINST NUMERIC(2) NOT NULL,
  -> TEAM_POINTS NUMERIC(2) NOT NULL,
  -> TEAM_POSITION NUMERIC(3) NOT NULL,
  -> TEAM_GROUP CHAR(1) NOT NULL,
  -> INDEX(TEAM_COUNTRY),
  -> INDEX(TEAM_COACH),
  -> CONSTRAINT FK_TEAM_COUNTRY FOREIGN KEY (TEAM_COUNTRY) REFERENCES COUNTRY(COUNTRY_CODE),
  -> CONSTRAINT FK_TEAM_COACH FOREIGN KEY (TEAM_COACH) REFERENCES COACH(COACH_CODE));
Query OK, 0 rows affected (0.11 sec)

mysql> CREATE TABLE PLAYER (
  -> PLAYER_CODE NUMERIC(4) PRIMARY KEY,
  -> PLAYER_LASTNAME VARCHAR(40) NOT NULL,
  -> PLAYER_FIRSTNAME VARCHAR(40) NOT NULL,
  -> PLAYER_BIRTHDATE DATE NOT NULL,
  -> PLAYER_TEAM NUMERIC(3),
  -> PLAYER_POSITION ENUM('goalkeeper','defender','midfielder','forward') NOT NULL,
  -> PLAYER_CURRENTCLUB VARCHAR(25) NOT NULL,
  -> PLAYER_HEIGHT NUMERIC(3) NOT NULL,
  -> PLAYER_SHIRTNUMBER NUMERIC(2) NOT NULL,
  -> INDEX(PLAYER_TEAM),
  -> CONSTRAINT FK_PLAYER_TEAM FOREIGN KEY (PLAYER_TEAM) REFERENCES TEAM(TEAM_CODE));
Query OK, 0 rows affected (0.08 sec)

mysql> CREATE TABLE GAME (
  -> GAME_CODE NUMERIC(3) PRIMARY KEY,
  -> GAME_KIND ENUM('groupstage','roundof16','quarterfinals','semifinals','final') NOT NULL,
  -> GAME_WINNERTeam NUMERIC(3),
  -> GAME_LOSSTEAM NUMERIC(3),
  -> GAME_TIME TIME NOT NULL,
  -> GAME_DATE DATE NOT NULL,
  -> GAME_WINNERTEAMSCORE NUMERIC(2) NOT NULL,
  -> GAME_LOSSTEAMSCORE NUMERIC(2) NOT NULL,
  -> GAME_REFEREE NUMERIC(3),
  -> GAME_REFASIST1 NUMERIC(3),
  -> GAME_REFASIST2 NUMERIC(3),
  -> GAME_REF4TH NUMERIC(3),
  -> GAME_REFASISTSUP NUMERIC(3),
  -> GAME_STADIUM NUMERIC(2),
  -> INDEX(GAME_WINNERTeam),
  -> INDEX(GAME_LOSSTEAM),
  -> INDEX(GAME_REFEREE),
  -> INDEX(GAME_REFASIST1),
  -> INDEX(GAME_REFASIST2),
  -> INDEX(GAME_REF4TH),
  -> INDEX(GAME_REFASISTSUP),
  -> INDEX(GAME_STADIUM),
  -> CONSTRAINT FK_GAME_WINNERTeam FOREIGN KEY (GAME_WINNERTeam) REFERENCES TEAM(TEAM_CODE),
  -> CONSTRAINT FK_GAME_LOSSTEAM FOREIGN KEY (GAME_LOSSTEAM) REFERENCES TEAM(TEAM_CODE),
  -> CONSTRAINT FK_GAME_REFEREE FOREIGN KEY (GAME_REFEREE) REFERENCES REFEREE(REFEREE_CODE),
  -> CONSTRAINT FK_GAME_REFASIST1 FOREIGN KEY (GAME_REFASIST1) REFERENCES REFEREE(REFEREE_CODE),
  -> CONSTRAINT FK_GAME_REFASIST2 FOREIGN KEY (GAME_REFASIST2) REFERENCES REFEREE(REFEREE_CODE),
  -> CONSTRAINT FK_GAME_REF4TH FOREIGN KEY (GAME_REF4TH) REFERENCES REFEREE(REFEREE_CODE),
  -> CONSTRAINT FK_GAME_REFASISTSUP FOREIGN KEY (GAME_REFASISTSUP) REFERENCES REFEREE(REFEREE_CODE),
  -> CONSTRAINT FK_GAME_STADIUM FOREIGN KEY (GAME_STADIUM) REFERENCES STADIUM(STADIUM_CODE));
Query OK, 0 rows affected (0.28 sec)

mysql> CREATE TABLE GOAL (
  -> GOAL_CODE NUMERIC(3) PRIMARY KEY,
  -> GOAL_GAME NUMERIC(3),
  -> GOAL_PLAYER NUMERIC(4),
  -> GOAL_TIME TIME NOT NULL,
  -> INDEX(GOAL_GAME),
  -> INDEX(GOAL_PLAYER),
  -> CONSTRAINT FK_GOAL_GAME FOREIGN KEY (GOAL_GAME) REFERENCES GAME(GAME_CODE),
  -> CONSTRAINT FK_GOAL_PLAYER FOREIGN KEY (GOAL_PLAYER) REFERENCES PLAYER(PLAYER_CODE));
Query OK, 0 rows affected (0.16 sec)

mysql> ALTER TABLE TEAM
  -> ADD TEAM_CAPTAIN NUMERIC(4),
  -> ADD INDEX(TEAM_CAPTAIN),
  -> ADD CONSTRAINT FK_TEAM_CAPTAIN FOREIGN KEY (TEAM_CAPTAIN) REFERENCES PLAYER(PLAYER_CODE);
Query OK, 0 rows affected (0.21 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

- Data Manipulation I :

```
INSERT INTO COUNTRY VALUES(001,'Paraguay');
INSERT INTO COUNTRY VALUES(002,'Spain');
INSERT INTO COUNTRY VALUES(003,'Germany');
INSERT INTO COUNTRY VALUES(004,'Netherlands');
INSERT INTO COUNTRY VALUES(005,'Hungary');
INSERT INTO COUNTRY VALUES(006,'Belgium');
INSERT INTO COUNTRY VALUES(007,'Guatemala');
INSERT INTO COUNTRY VALUES(008,'Costa Rica');
INSERT INTO COUNTRY VALUES(009,'Mexico');
INSERT INTO COUNTRY VALUES(010,'Honduras');
INSERT INTO COUNTRY VALUES(011,'Canada');
INSERT INTO COUNTRY VALUES(012,'England');
INSERT INTO COUNTRY VALUES(013,'Japan');
INSERT INTO COUNTRY VALUES(014,'Argentina');
```

```
INSERT INTO STADIUM VALUES(01,'Ellis Park','Johannesburg',55686);
INSERT INTO STADIUM VALUES(02,'Soccer City','Johannesburg',84490);
INSERT INTO STADIUM VALUES(03,'Moses Mabhida','Durban',62760);
```

```
INSERT INTO REFEREE VALUES(001,'Kassai','Viktor','1975-09-10','2003',005);
INSERT INTO REFEREE VALUES(002,'Eros','Gabor','71-09-05','2003',005);
INSERT INTO REFEREE VALUES(003,'Vamos','Tibor','1967-01-16','1999',005);
INSERT INTO REFEREE VALUES(004,'Hermans','Peter','1975-09-10','2003',006);
INSERT INTO REFEREE VALUES(005,'De Bleeckere','Frank','1966-07-01','1998',006);
INSERT INTO REFEREE VALUES(006,'Batres','Carlos','1968-04-02','1996',007);
INSERT INTO REFEREE VALUES(007,'Leal','Leonel','1976-11-21','2001',008);
INSERT INTO REFEREE VALUES(008,'Archundia','Benito','1966-03-21','1993',009);
INSERT INTO REFEREE VALUES(009,'Pastrana','Carlos','1968-11-27','1999',010);
INSERT INTO REFEREE VALUES(010,'Vergara','Hector','1966-12-15','1993',011);
INSERT INTO REFEREE VALUES(011,'Webb','Howard','1971-07-14','2005',012);
INSERT INTO REFEREE VALUES(012,'Cann','Darren','1969-01-22','2005',012);
INSERT INTO REFEREE VALUES(013,'Mullarkey','Michael','1970-05-03','2007',012);
INSERT INTO REFEREE VALUES(014,'Sagara','Toru','1976-06-25','2007',013);
INSERT INTO REFEREE VALUES(015,'Nishimura','Yuichi','1972-04-17','2004',013);
```

```
INSERT INTO COACH VALUES(001,'Loew','Joachim','1960-02-03',003);
INSERT INTO COACH VALUES(002,'Martino','Gerardo','1962-11-20',014);
INSERT INTO COACH VALUES(003,'Van Marwijk','Bert','1952-05-19',004);
INSERT INTO COACH VALUES(004,'Del Bosque','Vicente','1950-12-23',002);
```

```
INSERT INTO TEAM VALUES(001,001,002,3,1,0,2,3,1,5,2,'F',NULL);
INSERT INTO TEAM VALUES(002,002,004,3,2,1,0,4,2,6,1,'H',NULL);
INSERT INTO TEAM VALUES(003,003,001,3,2,1,0,5,1,6,4,'D',NULL);
INSERT INTO TEAM VALUES(004,004,003,3,3,0,0,5,1,9,3,'F',NULL);
```

```
INSERT INTO PLAYER VALUES(001,'Neuer','Manuel','1986-03-27',003,'goalkeeper','Schalke 04',190,1);
INSERT INTO PLAYER VALUES(002,'Jansen','Marcell','1985-11-04',003,'midfielder','Hamburger SV',190,2);
INSERT INTO PLAYER VALUES(003,'Friedrich','Arne','1979-05-29',003,'defender','Hertha Berlin',185,3);
INSERT INTO PLAYER VALUES(004,'Aogo','Dennis','1987-01-14',003,'defender','Hamburger SV',184,4);
INSERT INTO PLAYER VALUES(005,'Tasci','Serdar','1987-04-24',003,'defender','VfB Stuttgart',186,5);
INSERT INTO PLAYER VALUES(006,'Khedira','Sami','1987-04-04',003,'midfielder','VfB Stuttgart',189,6);
INSERT INTO PLAYER VALUES(007,'Schweinsteiger','Bastian','1984-08-01',003,'midfielder','Bayern Munich',180,7);
INSERT INTO PLAYER VALUES(008,'Oezil','Mesut','1988-10-15',003,'midfielder','Werder Bremen',182,8);
INSERT INTO PLAYER VALUES(009,'Kiessling','Stefan','1984-08-01',003,'forward','Bayer Leverkusen',191,9);
INSERT INTO PLAYER VALUES(010,'Podolski','Lukas','1985-06-04',003,'forward','FC Cologne',180,10);
INSERT INTO PLAYER VALUES(011,'Klose','Miroslav','1978-06-09',003,'forward','Bayern Munich',182,11);
INSERT INTO PLAYER VALUES(012,'Stekelenburg','Maarten','1982-09-22',004,'goalkeeper','Ajax',197,1);
INSERT INTO PLAYER VALUES(013,'Van Der Wiel','Gregory','1988-02-03',004,'defender','Ajax',180,2);
INSERT INTO PLAYER VALUES(014,'Heitinga','John','1983-11-15',004,'defender','Everton',182,3);
INSERT INTO PLAYER VALUES(015,'Mathijsen','Joris','1980-04-05',004,'defender','Hamburger SV',182,4);
INSERT INTO PLAYER VALUES(016,'Van Bronckhorst','Giovanni','1980-04-05',004,'defender','Feyenoord',176,5);
INSERT INTO PLAYER VALUES(017,'Van Bommel','Mark','1977-04-22',004,'midfielder','Bayern Munich',187,6);
INSERT INTO PLAYER VALUES(018,'Kuyt','Dirk','1980-07-22',004,'forward','Liverpool',183,7);
INSERT INTO PLAYER VALUES(019,'De Jong','Nigel','1984-03-11',004,'midfielder','Manchester City',174,8);
INSERT INTO PLAYER VALUES(020,'Van Persie','Robin','1983-08-06',004,'forward','Arsenal',184,9);
INSERT INTO PLAYER VALUES(021,'Sneijder','Wesley','1984-06-09',004,'midfielder','Inter',170,10);
INSERT INTO PLAYER VALUES(022,'Robben','Arjen','1984-01-23',004,'forward','Bayern Munich',180,11);
```

```

INSERT INTO PLAYER VALUES(023,'Villar','Justo','1977-06-30',001,'goalkeeper','Valladolid',180,1);
INSERT INTO PLAYER VALUES(024,'Veron','Dario','1979-07-26',001,'defender','Pumas UNAM',181,2);
INSERT INTO PLAYER VALUES(025,'Morel','Claudio','1978-02-02',001,'defender','Boca Juniors',175,3);
INSERT INTO PLAYER VALUES(026,'Caniza','Denis','1974-08-29',001,'defender','Leon',174,4);
INSERT INTO PLAYER VALUES(027,'Caceres','Julio Cesar','1979-10-05',001,'defender','Atletico Mineiro',181,5);
INSERT INTO PLAYER VALUES(028,'Bonet','Carlos','1977-10-02',001,'midfielder','Olimpia Asuncion',181,6);
INSERT INTO PLAYER VALUES(029,'Cardozo','Oscar','1983-05-20',001,'forward','Benfica',192,7);
INSERT INTO PLAYER VALUES(030,'Barreto','Edgar','1984-07-15',001,'midfielder','Atalanta',178,8);
INSERT INTO PLAYER VALUES(031,'Santa Cruz','Roque','1981-08-06',001,'forward','Manchester City',191,9);
INSERT INTO PLAYER VALUES(032,'Benitez','Edgar','1987-11-08',001,'forward','Pachuca',176,10);
INSERT INTO PLAYER VALUES(033,'Santana','Jonathan','1981-10-19',001,'midfielder','Wolfsburg',181,11);
INSERT INTO PLAYER VALUES(034,'Casillas','Iker','1981-05-20',002,'goalkeeper','Real Madrid',184,1);
INSERT INTO PLAYER VALUES(035,'Albiol','Raul','1985-09-04',002,'defender','Real Madrid',187,2);
INSERT INTO PLAYER VALUES(036,'Pique','Gerard','1987-02-02',002,'defender','Barcelona',192,3);
INSERT INTO PLAYER VALUES(037,'Marchena','Carlos','1979-07-31',002,'defender','Valencia',182,4);
INSERT INTO PLAYER VALUES(038,'Puyol','Carles','1978-04-13',002,'defender','Barcelona',178,5);
INSERT INTO PLAYER VALUES(039,'Iniesta','Andres','1984-05-11',002,'midfielder','Barcelona',170,6);
INSERT INTO PLAYER VALUES(040,'Villa','David','1981-12-03',002,'forward','Valencia',175,7);
INSERT INTO PLAYER VALUES(041,'Xavi','Hernandez','1980-01-25',002,'midfielder','Barcelona',170,8);
INSERT INTO PLAYER VALUES(042,'Torres','Fernando','1984-03-20',002,'forward','Liverpool',181,9);
INSERT INTO PLAYER VALUES(043,'Fabregas','Cesc','1987-05-04',002,'midfielder','Arsenal',175,10);
INSERT INTO PLAYER VALUES(044,'Capdevila','Joan','1978-02-03',002,'defender','Villareal',182,11);

```

```

INSERT INTO GAME VALUES(001,'quarterfinals',002,001,'01:34:00','2010-07-03',1,0,006,007,009,008,010,01);
INSERT INTO GAME VALUES(002,'semifinals',002,003,'01:34:00','2010-07-07',1,0,001,002,003,005,004,03);
INSERT INTO GAME VALUES(003,'final',002,004,'02:08:00','2010-07-11',1,0,011,012,013,015,014,02);

```

```

INSERT INTO GOAL VALUES(001,001,040,'01:23:00');
INSERT INTO GOAL VALUES(002,003,039,'01:56:00');
INSERT INTO GOAL VALUES(003,002,038,'01:13:00');

```

```

UPDATE TEAM SET TEAM_CAPTAIN = 034 WHERE TEAM_CODE = 002;
UPDATE TEAM SET TEAM_CAPTAIN = 027 WHERE TEAM_CODE = 001;
UPDATE TEAM SET TEAM_CAPTAIN = 022 WHERE TEAM_CODE = 004;
UPDATE TEAM SET TEAM_CAPTAIN = 008 WHERE TEAM_CODE = 001;

```

```

COMMIT;

```

```

mysql> INSERT INTO COUNTRY VALUES(014,'Argentina');
Query OK, 1 row affected (0.05 sec)

mysql> INSERT INTO REFEREE VALUES(015,'Nishimura','Yuichi','1972-04-17','2004',013);
Query OK, 1 row affected (0.04 sec)

mysql> INSERT INTO STADIUM VALUES(03,'Moses Mabhida','Durban',62760);
Query OK, 1 row affected (0.04 sec)

mysql> INSERT INTO COACH VALUES(002,'Martino','Gerardo','1962-11-20',014);
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO TEAM VALUES(001,001,002,3,1,0,2,3,1,5,2,'F',NULL);
Query OK, 1 row affected (0.05 sec)

mysql> INSERT INTO PLAYER VALUES(023,'Villar','Justo','1977-06-30',001,'goalkeeper','Valladolid',180,1);
Query OK, 1 row affected (0.05 sec)

mysql> INSERT INTO GAME VALUES(001,'quarterfinals',002,001,'01:34:00','2010-07-03',1,0,006,007,009,008,010,01);
Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO GOAL VALUES(001,001,040,'01:23:00');
Query OK, 1 row affected (0.04 sec)

mysql> UPDATE TEAM SET TEAM_CAPTAIN = 034 WHERE TEAM_CODE = 002;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0

```

- Data Manipulation II :

→ This request display all players from a same given team.

```
SELECT * FROM PLAYER WHERE PLAYER_TEAM = (
SELECT TEAM_CODE FROM TEAM WHERE TEAM_COUNTRY = (
SELECT COUNTRY_CODE FROM COUNTRY WHERE COUNTRY_NAME = 'Germany'))
ORDER BY PLAYER_LASTNAME;
```

```
mysql> SELECT * FROM PLAYER WHERE PLAYER_TEAM = (
-> SELECT TEAM_CODE FROM TEAM WHERE TEAM_COUNTRY = (
-> SELECT COUNTRY_CODE FROM COUNTRY WHERE COUNTRY_NAME = 'Germany'))
-> ORDER BY PLAYER_LASTNAME;
```

PLAYER_CODE	PLAYER_LASTNAME	PLAYER_FIRSTNAME	PLAYER_BIRTHDATE	PLAYER_TEAM	PLAYER_POSITION	PLAYER_CURRENTCLUB	PLAYER_HEIGHT	PLAYER_SHIRTNUMBER
4	Aogo	Dennis	1987-01-14	3	defender	Hamburger SV	184	4
3	Friedrich	Arne	1979-05-29	3	defender	Hertha Berlin	185	3
2	Jansen	Marcell	1985-11-04	3	midfielder	Hamburger SV	190	2
6	Khedira	Sami	1987-04-04	3	midfielder	UfB Stuttgart	189	6
9	Kiessling	Stefan	1984-08-01	3	forward	Bayer Leverkusen	191	9
11	Klose	Miroslav	1978-06-09	3	forward	Bayern Munich	182	11
1	Neuer	Manuel	1986-03-27	3	goalkeeper	Schalke 04	190	1
8	Oezil	Mesut	1988-10-15	3	midfielder	Werder Bremen	182	8
10	Podolski	Lukas	1985-06-04	3	forward	FC Cologne	180	10
7	Schweinsteiger	Bastian	1984-08-01	3	midfielder	Bayern Munich	180	7
5	Tasci	Serdar	1987-04-24	3	defender	UfB Stuttgart	186	5

11 rows in set (0.00 sec)

→ This request display the team ranking in the world cup.

```
SELECT TEAM_POSITION AS POSITION,COUNTRY_NAME AS COUNTRY,  
CONCAT(UPPER(COACH_LASTNAME),LOWER(COACH_FIRSTNAME)) AS COACH, TEAM_GROUP  
FROM COUNTRY,TEAM,COACH  
WHERE TEAM_COUNTRY=COUNTRY_CODE AND TEAM_COACH=COACH_CODE  
ORDER BY TEAM_POSITION;
```

```
mysql> SELECT TEAM_POSITION AS POSITION,COUNTRY_NAME AS COUNTRY, CONCAT(UPPER(CO  
ACH_LASTNAME),LOWER(COACH_FIRSTNAME)) AS COACH, TEAM_GROUP  
-> FROM COUNTRY,TEAM,COACH  
-> WHERE TEAM_COUNTRY=COUNTRY_CODE AND TEAM_COACH=COACH_CODE  
-> ORDER BY TEAM_POSITION;
```

POSITION	COUNTRY	COACH	TEAM_GROUP
1	Spain	DEL BOSQUEvicente	H
2	Paraguay	MARTINOgerardo	F
3	Netherlands	VAN MARWIJKbert	F
4	Germany	LOEWjoachim	D

```
4 rows in set (0.00 sec)
```

→ This request display all the countries where are the referee from.

```
SELECT DISTINCT REFEREE_COUNTRY, COUNTRY_NAME  
FROM REFEREE,COUNTRY  
WHERE REFEREE_COUNTRY = COUNTRY_CODE;
```

```
mysql> SELECT DISTINCT REFEREE_COUNTRY, COUNTRY_NAME  
-> FROM REFEREE,COUNTRY  
-> WHERE REFEREE_COUNTRY = COUNTRY_CODE;
```

REFEREE_COUNTRY	COUNTRY_NAME
5	Hungary
6	Belgium
7	Guatemala
8	Costa Rica
9	Mexico
10	Honduras
11	Canada
12	England
13	Japan

```
9 rows in set (0.00 sec)
```

→ This request display the number of goals marked by the given player.

```
SELECT COUNT(*)  
FROM GOAL  
WHERE GOAL_PLAYER=038;
```

```
mysql> SELECT COUNT(*)  
-> FROM GOAL  
-> WHERE GOAL_PLAYER=038;
```

COUNT(*)
1

```
1 row in set (0.00 sec)
```

→ This request display a view of all the goals marked during the world cup and by who it was marked.

```
CREATE VIEW GOALSMARKED AS
SELECT PLAYER_CODE, PLAYER_LASTNAME, PLAYER_FIRSTNAME, GOAL_CODE, GOAL_TIME
FROM PLAYER,GOAL
WHERE PLAYER_CODE=GOAL_PLAYER;
```

```
mysql> CREATE VIEW GOALSMARKED AS
-> SELECT PLAYER_CODE, PLAYER_LASTNAME, PLAYER_FIRSTNAME, GOAL_CODE, GOAL_TIME
ME
-> FROM PLAYER,GOAL
-> WHERE PLAYER_CODE=GOAL_PLAYER;
Query OK, 0 rows affected (0.04 sec)

mysql> SELECT * FROM GOALSMARKED;
+-----+-----+-----+-----+-----+
| PLAYER_CODE | PLAYER_LASTNAME | PLAYER_FIRSTNAME | GOAL_CODE | GOAL_TIME |
+-----+-----+-----+-----+-----+
| 40 | Villa | David | 1 | 01:23:00 |
| 39 | Iniesta | Andres | 2 | 01:56:00 |
| 38 | Puyol | Carles | 3 | 01:13:00 |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

→ This request display a view of the number of goals marked by every player order by the best scorer.

```
CREATE VIEW NUMBEROFGOALS AS
SELECT PLAYER_LASTNAME, PLAYER_FIRSTNAME,COUNT(PLAYER_CODE) AS NUMBEROFGOALSMARKED
FROM GOALSMARKED
GROUP BY PLAYER_CODE
ORDER BY NUMBEROFGOALSMARKED;
```

```
mysql> CREATE VIEW NUMBEROFGOALS AS
-> SELECT PLAYER_LASTNAME, PLAYER_FIRSTNAME,COUNT(PLAYER_CODE) AS NUMBEROFGO
ALSMARKED
-> FROM GOALSMARKED
-> GROUP BY PLAYER_CODE
-> ORDER BY NUMBEROFGOALSMARKED;
Query OK, 0 rows affected (0.04 sec)

mysql> SELECT * FROM NUMBEROFGOALS;
+-----+-----+-----+
| PLAYER_LASTNAME | PLAYER_FIRSTNAME | NUMBEROFGOALSMARKED |
+-----+-----+-----+
| Villa | David | 1 |
| Puyol | Carles | 1 |
| Iniesta | Andres | 1 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

→ This request display the stadium which have a capacity over 60000.

```
SELECT *
FROM STADIUM
WHERE STADIUM_CAPACITY>60000;
```

```
mysql> SELECT *
-> FROM STADIUM
-> WHERE STADIUM_CAPACITY>60000;
+-----+-----+-----+-----+
| STADIUM_CODE | STADIUM_NAME | STADIUM_LOCATION | STADIUM_CAPACITY |
+-----+-----+-----+-----+
| 2 | Soccer City | Johannesburg | 84490 |
| 3 | Moses Mabhida | Durban | 62760 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

→ This request display the game which are a quarter or semi finals kind game.

```
SELECT GAME_CODE,GAME_KIND,GAME_WINNERTEAM AS WINNER,GAME_LOSSTEAM AS LOSER,
GAME_TIME,GAME_DATE
FROM GAME
WHERE GAME_KIND IN ('quarterfinals','semifinals');
```

```
mysql> SELECT GAME_CODE,GAME_KIND,GAME_WINNERTEAM AS WINNER,GAME_LOSSTEAM AS LOSER,
GAME_TIME,GAME_DATE
-> FROM GAME
-> WHERE GAME_KIND IN ('quarterfinals','semifinals');
```

GAME_CODE	GAME_KIND	WINNER	LOSER	GAME_TIME	GAME_DATE
1	quarterfinals	2	1	01:34:00	2010-07-03
2	semifinals	2	3	01:34:00	2010-07-07

2 rows in set (0.00 sec)

→ This request display the stadium which have a location which begin with a 'J'.

```
SELECT STADIUM_NAME,STADIUM_LOCATION, STADIUM_CAPACITY
FROM STADIUM
WHERE STADIUM_LOCATION LIKE ('J%');
```

```
mysql> SELECT STADIUM_NAME,STADIUM_LOCATION, STADIUM_CAPACITY
-> FROM STADIUM
-> WHERE STADIUM_LOCATION LIKE ('J%');
```

STADIUM_NAME	STADIUM_LOCATION	STADIUM_CAPACITY
Ellis Park	Johannesburg	55686
Soccer City	Johannesburg	84490

2 rows in set (0.00 sec)

→ This request display all the players which have their height under 185cm.

```
SELECT PLAYER_CODE, PLAYER_LASTNAME, PLAYER_FIRSTNAME, PLAYER_HEIGHT
FROM PLAYER
GROUP BY PLAYER_HEIGHT
HAVING PLAYER_HEIGHT<185;
```

```
mysql> SELECT PLAYER_CODE, PLAYER_LASTNAME, PLAYER_FIRSTNAME, PLAYER_HEIGHT
-> FROM PLAYER
-> GROUP BY PLAYER_HEIGHT
-> HAVING PLAYER_HEIGHT<185;
```

PLAYER_CODE	PLAYER_LASTNAME	PLAYER_FIRSTNAME	PLAYER_HEIGHT
21	Sneijder	Wesley	170
19	De Jong	Nigel	174
25	Morel	Claudio	175
16	Van Bronckhorst	Giovanni	176
30	Barreto	Edgar	178
7	Schweinsteiger	Bastian	180
24	Veron	Dario	181
8	Oezil	Mesut	182
18	Kuyt	Dirk	183
4	Aogo	Dennis	184

10 rows in set (0.00 sec)

→ This request display the age of the player order by their team then by their age.

```
SELECT PLAYER_LASTNAME, PLAYER_LASTNAME, PLAYER_TEAM,
FLOOR(DATEDIFF(CURRENT_DATE(),PLAYER_BIRTHDATE)/365) AS AGE, COUNTRY_NAME
FROM PLAYER,COUNTRY
WHERE PLAYER_TEAM = (
SELECT TEAM_CODE FROM TEAM
WHERE TEAM_COUNTRY=COUNTRY_CODE)
ORDER BY COUNTRY_NAME,AGE;
```

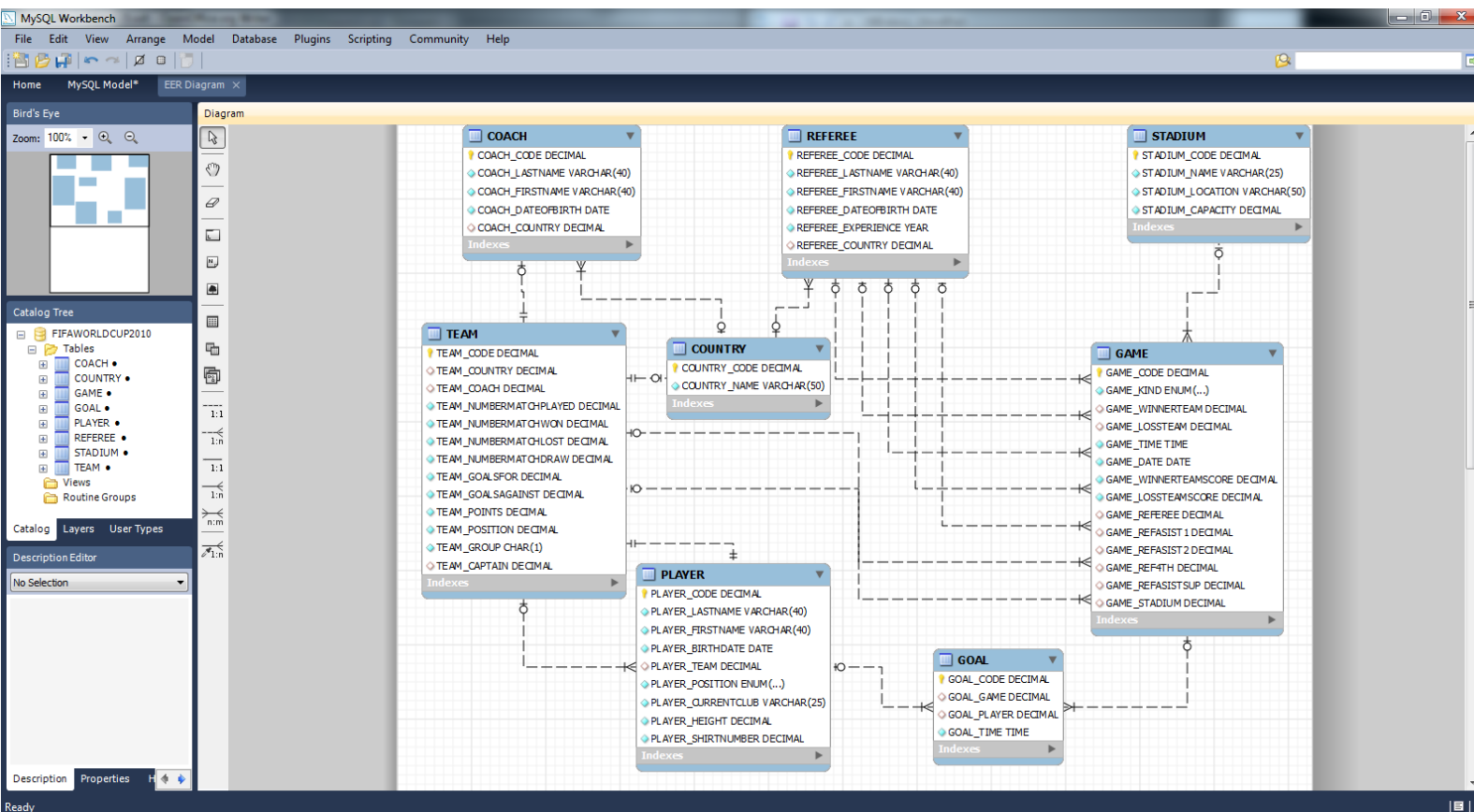
```
mysql> SELECT  PLAYER_LASTNAME, PLAYER_LASTNAME, PLAYER_TEAM, FLOOR(DATEDIFF(CUR
RENT_DATE(),PLAYER_BIRTHDATE)/365) AS AGE, COUNTRY_NAME
-> FROM PLAYER,COUNTRY
-> WHERE PLAYER_TEAM = (
-> SELECT TEAM_CODE FROM TEAM
-> WHERE TEAM_COUNTRY=COUNTRY_CODE)
-> ORDER BY COUNTRY_NAME,AGE;
```

PLAYER_LASTNAME	PLAYER_LASTNAME	PLAYER_TEAM	AGE	COUNTRY_NAME
Oezil	Oezil	3	22	Germany
Tasci	Tasci	3	23	Germany
Aogo	Aogo	3	23	Germany
Khedira	Khedira	3	23	Germany
Neuer	Neuer	3	24	Germany
Jansen	Jansen	3	25	Germany
Podolski	Podolski	3	25	Germany
Schweinsteiger	Schweinsteiger	3	26	Germany
Kiessling	Kiessling	3	26	Germany
Friedrich	Friedrich	3	31	Germany
Klose	Klose	3	32	Germany
Van Der Wiel	Van Der Wiel	4	22	Netherlands
De Jong	De Jong	4	26	Netherlands
Sneijder	Sneijder	4	26	Netherlands
Robben	Robben	4	26	Netherlands
Heitinga	Heitinga	4	27	Netherlands
Van Persie	Van Persie	4	27	Netherlands
Stekelenburg	Stekelenburg	4	28	Netherlands
Van Bronckhorst	Van Bronckhorst	4	30	Netherlands
Kuyt	Kuyt	4	30	Netherlands
Mathijsen	Mathijsen	4	30	Netherlands
Van Bommel	Van Bommel	4	33	Netherlands
Benitez	Benitez	1	23	Paraguay
Barreto	Barreto	1	26	Paraguay
Cardozo	Cardozo	1	27	Paraguay
Santa Cruz	Santa Cruz	1	29	Paraguay
Santana	Santana	1	29	Paraguay
Veron	Veron	1	31	Paraguay
Caceres	Caceres	1	31	Paraguay
Morel	Morel	1	32	Paraguay
Bonet	Bonet	1	33	Paraguay
Villar	Villar	1	33	Paraguay
Caniza	Caniza	1	36	Paraguay
Fabregas	Fabregas	2	23	Spain
Pique	Pique	2	23	Spain
Albiol	Albiol	2	25	Spain
Torres	Torres	2	26	Spain
Iniesta	Iniesta	2	26	Spain
Villa	Villa	2	29	Spain
Casillas	Casillas	2	29	Spain
Xavi	Xavi	2	30	Spain
Marchena	Marchena	2	31	Spain
Capdevila	Capdevila	2	32	Spain
Puyol	Puyol	2	32	Spain

44 rows in set (0.00 sec)



- MySQL Workbench GUI :



TEAM

Column Name	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
TEAM_COUNTRY	DECIMAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
TEAM_COACH	DECIMAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
TEAM_NUMBERMATCHPLAYED	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_NUMBERMATCHWON	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_NUMBERMATCHLOST	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_NUMBERMATCHDRAW	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_GOALSFOR	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_GOALSAGAINST	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_POINTS	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_POSITION	DECIMAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_GROUP	CHAR(1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TEAM_CAPTAIN	DECIMAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Table Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges

TEAM

Foreign Key Name	Referenced Table	Column	Referenced Column
FK_TEAM_COUNTRY	'FIFAWORLDCUP2010' ....	TEAM_CODE	TEAM_CODE
FK_TEAM_COACH	'FIFAWORLDCUP2010' ....	TEAM_COUNTRY	TEAM_COUNTRY
FK_TEAM_CAPTAIN	'FIFAWORLDCUP2010' ....	TEAM_COACH	TEAM_COACH
		TEAM_NUMBER...	TEAM_NUMBER...
		TEAM_NUMBER...	TEAM_NUMBER...
		TEAM_NUMBER...	TEAM_NUMBER...
		TEAM_NUMBER...	TEAM_NUMBER...
		TEAM_GOALSFOR	TEAM_GOALSFOR
		TEAM_GOALSAG...	TEAM_GOALSAG...
		TEAM_POINTS	TEAM_POINTS
		TEAM_POSITION	TEAM_POSITION
		TEAM_GROUP	TEAM_GROUP
		TEAM_CAPTAIN	PLAYER_CODE

Foreign Key Options

On Update: NO ACTION

On Delete: NO ACTION

☐ Skip in SQL generation

Foreign Key Comment

Table Columns Indexes Foreign Keys Triggers Partitioning Options Inserts Privileges



MySQL Workbench

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Home MySQL Model\* EER Diagram SQL Editor x

Object Browser

Default: fifa2010worldcup

- default\_schema
  - Tables
  - Views
  - Routines
- fifa2010worldcup
  - test

SQL Query\*

```
1 USE FIFAWORLDCUP2010;
2
3 INSERT INTO COUNTRY VALUES(001,'Paraguay');
4 INSERT INTO COUNTRY VALUES(002,'Spain');
5 INSERT INTO COUNTRY VALUES(003,'Germany');
6 INSERT INTO COUNTRY VALUES(004,'Netherlands');
7 INSERT INTO COUNTRY VALUES(005,'Hungary');
8 INSERT INTO COUNTRY VALUES(006,'Belgium');
9 INSERT INTO COUNTRY VALUES(007,'Guatemala');
10 INSERT INTO COUNTRY VALUES(008,'Costa Rica');
11 INSERT INTO COUNTRY VALUES(009,'Mexico');
12 INSERT INTO COUNTRY VALUES(010,'Honduras');
```

Overview Output Snippets

Show output from: Actions

	Time	Action	Message	Duration / Fetch
82	00:11:42	INSERT INTO PLAYER VALUES(039,'Iniesta','Andres','1984-05-11','002','midfielder','Barcelona',170,6)	1 row(s) affected	0.016 sec
83	00:11:42	INSERT INTO PLAYER VALUES(040,'Villa','David','1981-12-03','002','forward','Valencia',175,7)	1 row(s) affected	0.015 sec
84	00:11:42	INSERT INTO PLAYER VALUES(041,'Xavi','Hernandez','1980-01-25','002','midfielder','Barcelona',170,8)	1 row(s) affected	0.031 sec
85	00:11:42	INSERT INTO PLAYER VALUES(042,'Torres','Fernando','1984-03-20','002','forward','Liverpool',181,9)	1 row(s) affected	0.016 sec
86	00:11:42	INSERT INTO PLAYER VALUES(043,'Fabregas','Cesc','1987-05-04','002','midfielder','Arsenal',175,10)	1 row(s) affected	0.031 sec
87	00:11:42	INSERT INTO PLAYER VALUES(044,'Capdevila','Joan','1978-02-03','002','defender','Villareal',182,11)	1 row(s) affected	0.016 sec
88	00:11:42	INSERT INTO GAME VALUES(001,'quarterfinals','002,001','01:34:00','2010-07-03',1,0,006,007,009,008,010,011)	1 row(s) affected	0.016 sec
89	00:11:42	INSERT INTO GAME VALUES(002,'semifinals','002,003','01:34:00','2010-07-07',1,0,001,002,003,005,004,03)	1 row(s) affected	0.031 sec
90	00:11:42	INSERT INTO GAME VALUES(003,'final','002,004','02:08:00','2010-07-11',1,0,011,012,013,015,014,02)	1 row(s) affected	0.016 sec
91	00:11:42	INSERT INTO GOAL VALUES(001,001,040,'01:23:00')	1 row(s) affected	0.031 sec
92	00:11:42	INSERT INTO GOAL VALUES(002,003,039,'01:56:00')	1 row(s) affected	0.016 sec
93	00:11:42	INSERT INTO GOAL VALUES(003,002,038,'01:13:00')	1 row(s) affected	0.016 sec
94	00:11:42	UPDATE TEAM SET TEAM_CAPTAIN = 034 WHERE TEAM_CODE = 002	1 row(s) affectedRows matched: 1 Changed: 1 Warnings: 0	0.031 sec
95	00:11:42	UPDATE TEAM SET TEAM_CAPTAIN = 027 WHERE TEAM_CODE = 001	1 row(s) affectedRows matched: 1 Changed: 1 Warnings: 0	0.031 sec
96	00:11:42	UPDATE TEAM SET TEAM_CAPTAIN = 022 WHERE TEAM_CODE = 004	1 row(s) affectedRows matched: 1 Changed: 1 Warnings: 0	0.016 sec
97	00:11:42	UPDATE TEAM SET TEAM_CAPTAIN = 008 WHERE TEAM_CODE = 001	1 row(s) affectedRows matched: 1 Changed: 1 Warnings: 0	0.015 sec
98	00:11:42	COMMIT	0 row(s) affected	0.000 sec

Event 98 of type Info at 00:11:42

Action: COMMIT

Message: 0 row(s) affected

Ready

MySQL Workbench

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Object Browser

Default: fifa2010worldcup

- default\_schema
  - Tables
  - Views
  - Routines
- fifa2010worldcup
  - test

SQL Query\*

```
1 SELECT * FROM PLAYER WHERE PLAYER_TEAM = (
2 SELECT TEAM_CODE FROM TEAM WHERE TEAM_COUNTRY = (
3 SELECT COUNTRY_CODE FROM COUNTRY WHERE COUNTRY_NAME = 'Germany'))
4 ORDER BY PLAYER_LASTNAME;
```

Overview Output Snippets Result (1) x

Fetches 11 records

	PLAYER_CODE	PLAYER_LASTNAME	PLAYER_FIRSTNAME	PLAYER_BIRTHDATE	PLAYER_TEAM	PLAYER_POSITION	PLAYER_CURRENTCLUB	PLAYER_HEIGHT	PLAYER_SHIRTNUMBER
▶	4	Aogo	Dennis	1987-01-14	3	defender	Hamburger SV	184	4
	3	Friedrich	Arne	1979-05-29	3	defender	Hertha Berlin	185	3
	2	Jansen	Marcell	1985-11-04	3	midfielder	Hamburger SV	190	2
	6	Khedira	Sami	1987-04-04	3	midfielder	VfB Stuttgart	189	6
	9	Kiessling	Stefan	1984-08-01	3	forward	Bayer Leverkusen	191	9
	11	Klose	Miroslav	1978-06-09	3	forward	Bayern Munich	182	11
	1	Neuer	Manuel	1986-03-27	3	goalkeeper	Schalke 04	190	1
	8	Oezil	Mesut	1988-10-15	3	midfielder	Werder Bremen	182	8
	10	Podolski	Lukas	1985-06-04	3	forward	FC Cologne	180	10
	7	Schweinsteiger	Bastian	1984-08-01	3	midfielder	Bayern Munich	180	7
	5	Tasci	Serdar	1987-04-24	3	defender	VfB Stuttgart	186	5

Connection Information

Name: 127.0.0.1:3306

Host: MySQL

Server: 5.1.51-community

User: root

Ready