PROJECT REPORT

DATABASE MANAGEMENT SYSTEMS

FOOTBALL CLUB MANAGEMENT SYSTEM

DHARMSINH DESAI UNIVERSITY

SUBMITTED BY:
KRUPAL PATEL (IT-04)
ROHAN RUDANI(IT-06)

SUBMITTED TO:
PROF. SUNIL K. VITHLANI

DHARMSINH DESAI UNIVERSITY

FACULTY OF TECHNOLOGY

CERTIFICATE

This is to certify that KRUPAL PATEL (IT-04) and ROHAN RUDANI (IT-06), students of B.TECH INFORMATION TECHNOLOGY, SEMESTER V have successfully completed their term project in DATABASE MANAGEMENT SYSTEMS under the guidance of PROF. SUNIL K. VITHLANI in partial fulfillment of requirement during the academic year 2017-18.

STAFF IN CHARGE: **HEAD OF DEPARTMENT:**

DATE: **DATE:**

INDEX

ACKNOWLEDGEMENT

Working on this project “FOOTBALL CLUB MANAGEMENT SYSTEM” was a source of immense knowledge to us.

It would not have been possible without the kind support and help of many individuals. We would like to extend our sincere thanks to all of them.

We are highly indebted to Prof. Sunil K. Vithlani for their guidance and constant supervision as well as for providing necessary information regarding the project and also for their support in completing the project.
We would like to express our gratitude towards our parents and our friends for their kind co-operation and encouragement which help me in completion of this project.

SYSTEM OVERVIEW

Today is the modern era where we have the latest technology to assist us in every possible way. As we have seen the transformation of the work which was manually executed and now by the introduction of technology everything has changed around us, we are able to work efficiently and within short span of time investing a little effort. The most amazing development has been in the field of computers, it has made our life easy by automating the manual work.

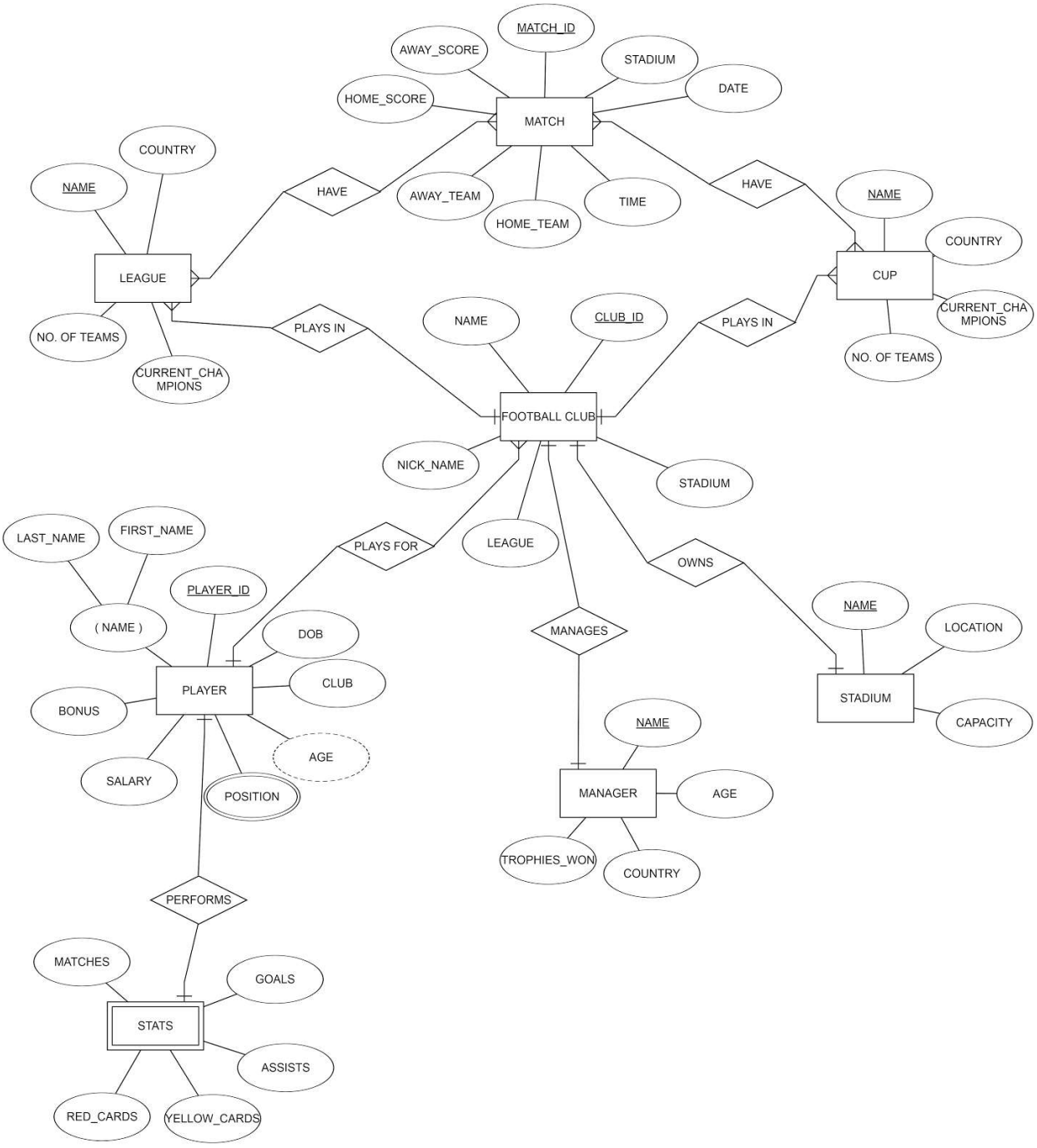
Purpose:
The main purpose of designing this management system is to manage the whole system online so that all the work goes in a very systematic manner. Earlier there was an account maintaining technique or we can say that all the system was handled manually in which the administrator has to maintain the register which leads to loss of data and security problem issue is also being faced. So now keeping in mind, the management have decided to design an online system so that all the things get automatically updated and kept safe in the database.

This is a project based on PL/SQL langauge.In this,we have developed football club management system in Oracle 11g environment, through which details related to a football club such as Stadium details, Player details, League and Cup Champions, Player Statistics and Manager details are stored and maintained in a database system.

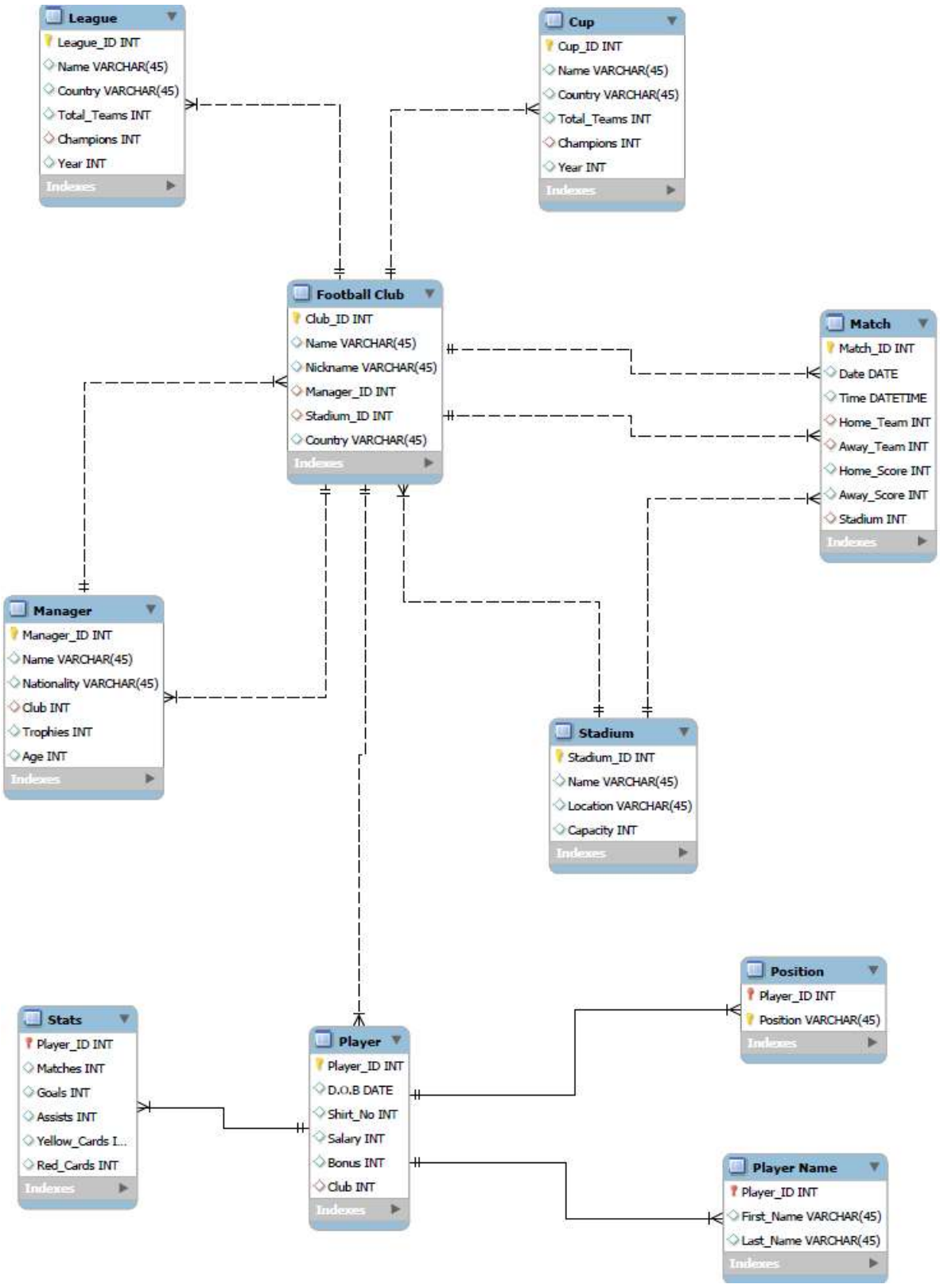
For this system we have created sufficient tables and inserted relevant data in the tables. Constraints such as primary key and foreign key are maintained for each table and sufficient queries have been gennerated to ensure the proper functioning of the database.

PL/SQL blocks such as functions,procedures are implemented to perform particular tasks. Triggers are used for conditions such as to increment the primary key ID or to perform error check when inserting a new record. Cursors are used to hold one or more rows returned by a PL/SQL statement.

E-R DIAGRAM


MATCH_ID
AWAY_SCORE
STADIUM
DATE
HOME_SCORE
MATCH
COUNTRY
NAME
HAVE
AWAY_TEAM
TIME
HOME_TEAM
HAVE
NAME
COUNTRY
LEAGUE
CUP
CURRENT_CHAMPIONS
NO. OF TEAMS
PLAYS IN
NAME
CLUB_ID
PLAYS IN
NO. OF TEAMS
CURRENT_CHAMPIONS
FOOTBALL CLUB
NICK_NAME
STADIUM
LAST_NAME
FIRST_NAME
PLAYS FOR
LEAGUE
OWNS
PLAYER_ID
(NAME)
DOB
MANAGES
NAME
LOCATION
PLAYER
CLUB
BONUS
STADIUM
CAPACITY
NAME
AGE
SALARY
POSITION
MANAGER
AGE
TROPHIES_WON
COUNTRY
PERFORMS
MATCHES
GOALS
STATS
ASSISTS
RED_CARDS
YELLOW_CARDS

DATABASE SCHEMA



IMPLEMENTATION

CREATING TABLES:

CLUB TABLE:

```
CREATE TABLE  "CLUB"
  (        "CLUB_ID" NUMBER NOT NULL ENABLE,
           "NAME" VARCHAR2(30),
           "NICKNAME" VARCHAR2(30),
           "MANAGER_ID" NUMBER,
           "COUNTRY" VARCHAR2(20),
           "STADIUM" NUMBER,
            CONSTRAINT "CLUB_PK" PRIMARY KEY ("CLUB_ID") ENABLE
  ) ;
ALTER TABLE  "CLUB"
ADD CONSTRAINT "CLUB_CON" FOREIGN KEY ("MANAGER_ID") REFERENCES  "MANAGER"
("MANAGER_ID") ON DELETE CASCADE ENABLE;
ALTER TABLE  "CLUB"
ADD CONSTRAINT "CLUB_CON1" FOREIGN KEY ("STADIUM") REFERENCES  "STADIUM" ("STADIUM_ID")
ON DELETE CASCADE ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
CLUB_ID	NUMBER	No	-	1
NAME	VARCHAR2(30)	Yes	-	-
NICKNAME	VARCHAR2(30)	Yes	-	-
MANAGER_ID	NUMBER	Yes	-	-
COUNTRY	VARCHAR2(20)	Yes	-	-
STADIUM	NUMBER	Yes	-	-
				1 - 6

LEAGUE TABLE:

```
CREATE TABLE  "LEAGUE"
  (        "LEAGUE_ID" NUMBER NOT NULL ENABLE,
           "NAME" VARCHAR2(30),
           "COUNTRY" VARCHAR2(20),
           "TOTAL_TEAMS" NUMBER,
           "CHAMPIONS" NUMBER,
           "YEAR" NUMBER,
            CONSTRAINT "LEAGUE_PK" PRIMARY KEY ("LEAGUE_ID") ENABLE
  ) ;
ALTER TABLE  "LEAGUE" ADD CONSTRAINT "LEAGUE_CON" FOREIGN KEY ("CHAMPIONS")
REFERENCES  "CLUB" ("CLUB_ID") ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
LEAGUE_ID	NUMBER	No	-	1
NAME	VARCHAR2(30)	Yes	-	-
COUNTRY	VARCHAR2(20)	Yes	-	-
TOTAL_TEAMS	NUMBER	Yes	-	-
CHAMPIONS	NUMBER	Yes	-	-
YEAR	NUMBER	Yes	-	-

1 - 6

CUP TABLE:

```
CREATE TABLE  "CUP"
  (         "CUP_ID" NUMBER NOT NULL ENABLE,
            "NAME" VARCHAR2(30),
            "COUNTRY" VARCHAR2(20),
            "TOTAL_TEAMS" NUMBER,
            "CHAMPIONS" NUMBER,
            "YEAR" NUMBER,
             CONSTRAINT "CUP_PK" PRIMARY KEY ("CUP_ID") ENABLE
  ) ;
ALTER TABLE  "CUP" ADD CONSTRAINT "CUP_CON" FOREIGN KEY ("CHAMPIONS")
REFERENCES  "CLUB" ("CLUB_ID") ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
CUP_ID	NUMBER	No	-	1
NAME	VARCHAR2(30)	Yes	-	-
COUNTRY	VARCHAR2(20)	Yes	-	-
TOTAL_TEAMS	NUMBER	Yes	-	-
CHAMPIONS	NUMBER	Yes	-	-
YEAR	NUMBER	Yes	-	-

1 - 6

MANAGER TABLE:

```
CREATE TABLE  "MANAGER"
  (         "MANAGER_ID" NUMBER NOT NULL ENABLE,
            "NAME" VARCHAR2(30),
            "NATIONALITY" VARCHAR2(30),
            "CLUB" NUMBER,
            "TROPHIES" NUMBER,
            "AGE" NUMBER,
             CONSTRAINT "MANAGER_PK" PRIMARY KEY ("MANAGER_ID") ENABLE
  ) ;
ALTER TABLE  "MANAGER" ADD CONSTRAINT "MANAGER_CON" FOREIGN KEY ("CLUB")
REFERENCES  "CLUB" ("CLUB_ID") ON DELETE CASCADE ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
MANAGER_ID	NUMBER	No	-	1
NAME	VARCHAR2(30)	Yes	-	-
NATIONALITY	VARCHAR2(30)	Yes	-	-
CLUB	NUMBER	Yes	-	-
TROPHIES	NUMBER	Yes	-	-
AGE	NUMBER	Yes	-	-

1 - 6

MATCH TABLE:

```
CREATE TABLE  "MATCH"
  (        "MATCH_ID" NUMBER NOT NULL ENABLE,
           "MATCH_DATE" DATE,
           "HOME_TEAM" NUMBER,
           "AWAY_TEAM" NUMBER,
           "HOME_SCORE" NUMBER,
           "AWAY_SCORE" NUMBER,
           "STADIUM" NUMBER,
            CONSTRAINT "MATCH_PK" PRIMARY KEY ("MATCH_ID") ENABLE
  ) ;
ALTER TABLE  "MATCH" ADD CONSTRAINT "MATCH_CON" FOREIGN KEY ("HOME_TEAM") REFERENCES
"CLUB" ("CLUB_ID") ENABLE;
ALTER TABLE  "MATCH" ADD CONSTRAINT "MATCH_CON1" FOREIGN KEY ("AWAY_TEAM") REFERENCES
"CLUB" ("CLUB_ID") ENABLE;
ALTER TABLE  "MATCH" ADD CONSTRAINT "MATCH_CON2" FOREIGN KEY ("STADIUM") REFERENCES
"STADIUM" ("STADIUM_ID") ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
MATCH_ID	NUMBER	No	-	1
MATCH_DATE	DATE	Yes	-	-
HOME_TEAM	NUMBER	Yes	-	-
AWAY_TEAM	NUMBER	Yes	-	-
HOME_SCORE	NUMBER	Yes	-	-
AWAY_SCORE	NUMBER	Yes	-	-
STADIUM	NUMBER	Yes	-	-

1 - 7

PLAYER TABLE:

```
CREATE TABLE  "PLAYER"
  (        "PLAYER_ID" NUMBER NOT NULL ENABLE,
           "BIRTHDATE" DATE,
           "SHIRT_NO" NUMBER,
           "SALARY" NUMBER,
           "BONUS" NUMBER,
           "CLUB" NUMBER,
```

```
        CONSTRAINT "PLAYER_PK" PRIMARY KEY ("PLAYER_ID") ENABLE
  ) ;
ALTER TABLE  "PLAYER" ADD CONSTRAINT "PLAYER_CON" FOREIGN KEY ("CLUB") REFERENCES
"CLUB" ("CLUB_ID") ON DELETE SET NULL ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
PLAYER_ID	NUMBER	No	-	1
BIRTHDATE	DATE	Yes	-	-
SHIRT_NO	NUMBER	Yes	-	-
SALARY	NUMBER	Yes	-	-
BONUS	NUMBER	Yes	-	-
CLUB	NUMBER	Yes	-	-
				1 - 6

PLAYERNAME TABLE:

```
CREATE TABLE  "PLAYERNAME"
  (        "PLAYER_ID" NUMBER NOT NULL ENABLE,
           "FIRST_NAME" VARCHAR2(15),
           "LAST_NAME" VARCHAR2(15),
            CONSTRAINT "PLAYERNAME_PK" PRIMARY KEY ("PLAYER_ID") ENABLE
  ) ;
ALTER TABLE  "PLAYERNAME" ADD CONSTRAINT "PLAYERNAME_CON" FOREIGN KEY ("PLAYER_ID")
REFERENCES  "PLAYER" ("PLAYER_ID") ON DELETE CASCADE ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
PLAYER_ID	NUMBER	No	-	1
FIRST_NAME	VARCHAR2(15)	Yes	-	-
LAST_NAME	VARCHAR2(15)	Yes	-	-
				1 - 3

POSITION TABLE:

```
CREATE TABLE  "POSITION"
  (        "PLAYER_ID" NUMBER NOT NULL ENABLE,
           "POSITION" VARCHAR2(5),
            CONSTRAINT "POSITION_PK" PRIMARY KEY ("PLAYER_ID", "POSITION") ENABLE
  ) ;
ALTER TABLE  "POSITION" ADD CONSTRAINT "POSITION_CON" FOREIGN KEY ("PLAYER_ID")
REFERENCES  "PLAYER" ("PLAYER_ID") ON DELETE CASCADE ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
PLAYER_ID	NUMBER	No	-	1
POSITION	VARCHAR2(5)	No	-	2
				1 - 2

STATS TABLE:

```
CREATE TABLE  "STATS"
  (       "PLAYER_ID" NUMBER NOT NULL ENABLE,
          "MATCHES" NUMBER,
          "GOALS" NUMBER,
          "ASSISTS" NUMBER,
          "YELLOW_CARDS" NUMBER,
          "RED_CARDS" NUMBER,
           CONSTRAINT "STATS_PK" PRIMARY KEY ("PLAYER_ID") ENABLE
  ) ;
ALTER TABLE  "STATS" ADD CONSTRAINT "STATS_CON" FOREIGN KEY ("PLAYER_ID") REFERENCES
"PLAYER" ("PLAYER_ID") ON DELETE CASCADE ENABLE;
```

Column Name	Data Type	Nullable	Default	Primary Key
PLAYER_ID	NUMBER	No	-	1
MATCHES	NUMBER	Yes	-	-
GOALS	NUMBER	Yes	-	-
ASSISTS	NUMBER	Yes	-	-
YELLOW_CARDS	NUMBER	Yes	-	-
RED_CARDS	NUMBER	Yes	-	-

1 - 6

STADIUM TABLE:

```
CREATE TABLE  "STADIUM"
  (       "STADIUM_ID" NUMBER NOT NULL ENABLE,
          "NAME" VARCHAR2(30),
          "LOCATION" VARCHAR2(30),
          "CAPACITY" NUMBER,
           CONSTRAINT "STADIUM_PK" PRIMARY KEY ("STADIUM_ID") ENABLE
  ) ;
```

Column Name	Data Type	Nullable	Default	Primary Key
STADIUM_ID	NUMBER	No	-	1
NAME	VARCHAR2(30)	Yes	-	-
LOCATION	VARCHAR2(30)	Yes	-	-
CAPACITY	NUMBER	Yes	-	-

1 - 4

OUTPUT

PL/SQL BLOCKS

1.

```
create or replace FUNCTION totalPlayers
RETURN number IS
  total number(2) := 0;
BEGIN
  SELECT count(*) into total
  FROM player;
   RETURN total;
END;
```

```
Function created.

0.04 seconds
```

```
DECLARE
  c number(2);
BEGIN
  c := totalPlayers();
  dbms_output.put_line('Total no. of Players: ' || c);
END;
/
```

```
Total no. of Players: 19

Statement processed.

0.12 seconds
```

2.

```
create or replace FUNCTION Manager_by_nationality(a_country IN VARCHAR2)
RETURN number IS
 total number(10);
BEGIN
 SELECT COUNT(*) INTO total
 FROM MANAGER
 WHERE  nationality= a_country;
 return total;
END;
```

```
Function created.

0.01 seconds
```

```
select Manager_by_nationality('Spain') from dual;
```

MANAGER_BY_NATIONALITY('SPAIN')
2

3.

```
create or replace FUNCTION Players_by_Goals(a_goals IN NUMBER)
RETURN number IS
 total number(10);
BEGIN
 SELECT COUNT(*) INTO total
 FROM stats
 WHERE  goals > a_goals;
 return total;
END;
```

```
Function created.
```

0.01 seconds

```
select Players_by_goals(50) from dual;
```

PLAYERS_BY_GOALS(50)
15

4.

```
create or replace FUNCTION Clubs_by_nationality(a_country IN VARCHAR2)
RETURN number IS
 total number(10);
BEGIN
 SELECT COUNT(*) INTO total
 FROM CLUB
 WHERE  country= a_country;
 return total;
END;
```

```
Function created.
```

0.04 seconds

```
select Clubs_by_nationality('England') from DUAL;
```

CLUBS_BY_NATIONALITY('ENGLAND')
6

5.

```
create or replace procedure "INSERTSTADIUM"
(id IN NUMBER, name IN VARCHAR2, location IN VARCHAR2, capacity IN VARCHAR2)
is
begin
insert into stadium values(id,name,location,capacity);
End;
```

```
Procedure created.
```

0.06 seconds

BEFORE:

STADIUM_ID	NAME	LOCATION	CAPACITY
12	Volkswagen Arena	Wolfsburg	30000
3	Old Trafford	Manchester	75635
4	Allianz Arena	Munich	75000
5	Signal Iduna Park	Dortmund	81359
6	Wanda Metropolitano	Madrid	68000
7	Emirates Stadium	London	60338
8	King Power Stadium	Leicester	32312
9	Anfield	Liverpool	56074
10	Stamford Bridge	London	41841
11	Etihad Stadium	Manchester	55000
1	Camp Nou	Barcelona	99354
2	Estadio Santiago Bernabeu	Madrid	81044

```
BEGIN
  insertstadium(13,'Wembley Stadium','London',90000);
  dbms_output.put_line('Record inserted successfully');
END;
/
```

AFTER:

```
Record inserted successfully

Statement processed.
```

STADIUM_ID	NAME	LOCATION	CAPACITY
12	Volkswagen Arena	Wolfsburg	30000
3	Old Trafford	Manchester	75635
4	Allianz Arena	Munich	75000
5	Signal Iduna Park	Dortmund	81359
6	Wanda Metropolitano	Madrid	68000
7	Emirates Stadium	London	60338
8	King Power Stadium	Leicester	32312
9	Anfield	Liverpool	56074
10	Stamford Bridge	London	41841
11	Etihad Stadium	Manchester	55000
1	Camp Nou	Barcelona	99354
2	Estadio Santiago Bernabeu	Madrid	81044
13	Wembley Stadium	London	90000

6.

```
create or replace PROCEDURE adjust_salary(
    in_player_id IN NUMBER,
    in_percent IN NUMBER
) IS
BEGIN
   UPDATE player
   SET salary = salary + salary * in_percent / 100
   WHERE player_id = in_player_id;
END
```

```
Procedure created.
```

0.06 seconds

BEFORE:

PLAYER_ID	BIRTHDATE	SHIRT_NO	SALARY	BONUS	CLUB
1	06/24/1987	10	500000	23000	1
2	05/11/1984	8	350000	18000	1
3	02/02/1987	3	405168.75	18000	1
4	12/19/1988	7	300000	19000	2
5	10/15/1988	11	300000	19000	2
6	05/31/1989	11	250000	13000	3
7	03/30/1986	4	350000	21000	4
8	04/21/1992	22	220000	13000	4
9	01/04/1990	8	325000	15000	4
10	01/07/1991	10	350000	15000	5
More than 10 rows available. Increase rows selector to view more rows.					

```
BEGIN
  adjust_salary(2,5);
  dbms_output.put_line('Record updated successfully');
END;
/
```

AFTER:

PLAYER_ID	BIRTHDATE	SHIRT_NO	SALARY	BONUS	CLUB
1	06/24/1987	10	500000	23000	1
2	05/11/1984	8	367500	18000	1
3	02/02/1987	3	405168.75	18000	1
4	12/19/1988	7	300000	19000	2
5	10/15/1988	11	300000	19000	2
6	05/31/1989	11	250000	13000	3
7	03/30/1986	4	350000	21000	4
8	04/21/1992	22	220000	13000	4
9	01/04/1990	8	325000	15000	4
10	01/07/1991	10	350000	15000	5
More than 10 rows available. Increase rows selector to view more rows.					

7.

```
create or replace PROCEDURE remove_stadium (stadium_id NUMBER)
  BEGIN
    DELETE FROM stadium
    WHERE stadium_id = remove_stadium.stadium_id;
END;
```

```
Procedure created.

0.06 seconds
```

```
BEGIN
  remove_stadium(13);
  dbms_output.put_line('Record deleted successfully');
END;
/
```

```
Record deleted successfully

Statement processed.
```

8.

```
create or replace procedure display_club_details
(club_id IN NUMBER) IS
id NUMBER;
name VARCHAR2(30);
```

```
nname VARCHAR2(30);
country VARCHAR2(30);
BEGIN
  id:=club_id;
select club_id,name,nickname,country
into id,name,nname,country
 from club
 where  club_id IN (select club from manager where club=id);
 dbms_output.put_line('ID:'||id);
dbms_output.put_line('NAME:'||name);
dbms_output.put_line('NICK NAME:'||nname);
dbms_output.put_line('COUNTRY:'||country);
EXCEPTION
      WHEN no_data_found THEN
      dbms_output.put_line('CLUB ID does not exist');
      WHEN others THEN
         dbms_output.put_line('Error!');
END;
```

```
Procedure created.

0.06 seconds
```

```
BEGIN
 display_club_details(1);
END;
```

```
ID:1
NAME:FC Barcelona
NICK NAME:Blaugrana
COUNTRY:Spain

Statement processed.
```

9.

```
CREATE OR REPLACE TRIGGER  "BI_PLAYER"
  before insert on "PLAYER"
  for each row
begin
  if :NEW."PLAYER_ID" is null then
    select "PLAYER_SEQ".nextval into :NEW."PLAYER_ID" from dual;
  end if;
end;

/
ALTER TRIGGER  "BI_PLAYER" ENABLE;
```

```
Trigger created.

0.14 seconds
```

10.

```
CREATE OR REPLACE TRIGGER  "BI_STADIUM"
BEFORE INSERT ON STADIUM
FOR EACH ROW
DECLARE
  ST_id number;
BEGIN
  SELECT demo_ST_seq.nextval
    INTO ST_id
    FROM dual;
  :new.STADIUM_ID := ST_id;
END;
/
```

```
ALTER TRIGGER  "BI_STADIUM" ENABLE;
```

```
Trigger created.
```

0.14 seconds

ON INVALID INSERT ROW OPERATION:

```
ORA-04098: trigger 'KRUPAL.BI_STADIUM' is invalid and failed re-validation
```

11.

```
create or replace
trigger TRIGGER1
AFTER INSERT ON CUP
REFERENCING NEW AS New
FOR EACH ROW
BEGIN
   IF :new.TOTAL_TEAMS> 800 THEN
      RAISE_APPLICATION_ERROR(-20000,'tOTAL TEAMS EXCEEDED');
  END IF;
END;
```

```
Trigger created.
```

0.14 seconds

ON INVALID INSERT ROW OPERATION

```
ORA-20000: tOTAL TEAMS EXCEEDED
ORA-06512: at "KRUPAL.TRIGGER1", line 3
ORA-04088: error during execution of trigger 'KRUPAL.TRIGGER1'


1. INSERT INTO CUP(CUP_ID,NAME,COUNTRY,TOTAL_TEAMS,CHAMPIONS,YEAR)
2. VALUES(30,'FA CUP','ENGLAND',850,2,2017)
```

12.

```
DECLARE
  c_name club.name%type;
  c_nickname club.nickname%type;
  c_country club.country%type;
  CURSOR c_club is
    SELECT name, nickname, country FROM club;
BEGIN
  OPEN c_club;
  LOOP
  FETCH c_club into c_name, c_nickname, c_country;
    EXIT WHEN c_club%notfound;
    dbms_output.put_line(c_name || ' ' || c_nickname || ' ' || c_country);
  END LOOP;
  CLOSE c_club;
END;
/
```

```
VFL Wolfsburg The Wolves Germany
FC Barcelona Blaugrana Spain
Arsenal Gunners England
Borussia Dortmund BVB Germany
Real Madrid Los Blancos Spain
Chelsea Blues England
Bayern Munich Bavarians Germany
Atletico Madrid Los RojiBlancos Spain
Liverpool Reds England
Leicester City Foxes England
Manchester City Cityzens England
Manchester United  Red Devils England

Statement processed.
```

13.

```
DECLARE
  CURSOR cur2
  IS
    SELECT *
     FROM club join player
     ON club.club_id = player.club
     join playername
     ON player.player_id = playername.player_id
     WHERE club.country = 'England';
BEGIN
  FOR playername
  IN cur2
  LOOP
    DBMS_OUTPUT.put_line (
      playername.first_name|| ' ' || playername.last_name);
  END LOOP;
END;
```

```
Mesut  Ozil
Alexis  Sanchez
Eden  Hazard
Phillipe Coutinho
Jamie Vardy
Kevin De Bruyne
Sergio Aguero
David  De Gea
Paul Pogba

Statement processed.
```

14.

```
DECLARE
  total_rows number(5);

BEGIN
    UPDATE player
    SET player.bonus=player.bonus + 1000;
    IF sql%notfound THEN
    dbms_output.put_line('no players selected');
    ELSIF sql%found THEN
    total_rows := sql%rowcount;
    dbms_output.put_line( total_rows || ' players selected ');
  END IF;
END;
/
```

BEFORE:

PLAYER_ID	BIRTHDATE	SHIRT_NO	SALARY	BONUS	CLUB
1	06/24/1987	10	500000	24000	1
2	05/11/1984	8	367500	19000	1
3	02/02/1987	3	405168.75	19000	1
4	12/19/1988	7	300000	20000	2
5	10/15/1988	11	300000	20000	2
6	05/31/1989	11	250000	14000	3
7	03/30/1986	4	350000	22000	4
8	04/21/1992	22	220000	14000	4
9	01/04/1990	8	325000	16000	4
10	01/07/1991	10	350000	16000	5
11	05/22/1987	22	315000	16000	6
12	03/27/1986	1	250000	14000	6
13	03/21/1991	7	300000	19000	7
14	06/12/1992	10	300000	16000	8
15	06/01/1988	17	175000	11000	9
16	06/02/1988	10	350000	19000	10
17	06/28/1991	17	350000	14000	10
18	03/15/1993	6	400000	19000	11
19	11/07/1990	1	250000	14000	11

AFTER:

PLAYER_ID	BIRTHDATE	SHIRT_NO	SALARY	BONUS	CLUB
1	06/24/1987	10	500000	25000	1
2	05/11/1984	8	367500	20000	1
3	02/02/1987	3	405168.75	20000	1
4	12/19/1988	7	300000	21000	2
5	10/15/1988	11	300000	21000	2
6	05/31/1989	11	250000	15000	3
7	03/30/1986	4	350000	23000	4
8	04/21/1992	22	220000	15000	4
9	01/04/1990	8	325000	17000	4
10	01/07/1991	10	350000	17000	5
11	05/22/1987	22	315000	17000	6
12	03/27/1986	1	250000	15000	6
13	03/21/1991	7	300000	20000	7
14	06/12/1992	10	300000	17000	8
15	06/01/1988	17	175000	12000	9
16	06/02/1988	10	350000	20000	10
17	06/28/1991	17	350000	15000	10
18	03/15/1993	6	400000	20000	11
19	11/07/1990	1	250000	15000	11

SOME QUERIES:

1.

```
select count(*) as Positions
from (select distinct position from position);
```

POSITIONS
12

2.

```
select sum (salary)"Total salary" from player ;
```

Total salary
6057668.75

3.

```
Select
player.player_id,playername.first_name,playername.last_name,player.shirt_no,player.salary,player.bonus
from player,playername
where playername.player_id= player.player_id;
```

PLAYER_ID	FIRST_NAME	LAST_NAME	SHIRT_NO	SALARY	BONUS
1	Lionel	Messi	10	500000	25000
2	Andres	Iniesta	8	367500	20000
3	Gerard	Pique	3	405168.75	20000
4	Alexis	Sanchez	7	300000	21000
5	Mesut	Ozil	11	300000	21000
6	Marco	Reus	11	250000	15000
7	Sergio	Ramos	4	350000	23000
8	Isco	Alarcon	22	220000	15000
9	Toni	Kroos	8	325000	17000
10	Eden	Hazard	10	350000	17000
11	Arturo	Vidal	22	315000	17000
12	Manuel	Neuer	1	250000	15000
13	Antoine	Griezmann	7	300000	20000
14	Phillipe	Coutinho	10	300000	17000
15	Jamie	Vardy	17	175000	12000
16	Sergio	Aguero	10	350000	20000
17	Kevin	De Bruyne	17	350000	15000
18	Paul	Pogba	6	400000	20000
19	David	De Gea	1	250000	15000

4.

```
select club_id,name,nickname,country
 from club
 where  club_id IN (select club from manager);
```

CLUB_ID	NAME	NICKNAME	COUNTRY
12	VFL Wolfsburg	The Wolves	Germany
1	FC Barcelona	Blaugrana	Spain
2	Arsenal	Gunners	England
3	Borussia Dortmund	BVB	Germany
4	Real Madrid	Los Blancos	Spain
5	Chelsea	Blues	England
6	Bayern Munich	Bavarians	Germany
7	Atletico Madrid	Los RojiBlancos	Spain
8	Liverpool	Reds	England
9	Leicester City	Foxes	England
10	Manchester City	Cityzens	England
11	Manchester United	Red Devils	England

5.

```
select * from stadium
order by capacity desc
```

STADIUM_ID	NAME	LOCATION	CAPACITY
1	Camp Nou	Barcelona	99354
5	Signal Iduna Park	Dortmund	81359
2	Estadio Santiago Bernabeu	Madrid	81044
3	Old Trafford	Manchester	75635
4	Allianz Arena	Munich	75000
6	Wanda Metropolitano	Madrid	68000
7	Emirates Stadium	London	60338
9	Anfield	Liverpool	56074
11	Etihad Stadium	Manchester	55000
10	Stamford Bridge	London	41841
8	King Power Stadium	Leicester	32312
12	Volkswagen Arena	Wolfsburg	30000

6.

```
UPDATE Stadium
SET capacity = capacity + 1000
WHERE stadium_id = 9;
```

```
1 row(s) updated.
```

7.

```
select club_id,name,nickname,country
 from club
 where  club_id IN (select club from manager);
```

CLUB_ID	NAME	NICKNAME	COUNTRY
12	VFL Wolfsburg	The Wolves	Germany
1	FC Barcelona	Blaugrana	Spain
2	Arsenal	Gunners	England
3	Borussia Dortmund	BVB	Germany
4	Real Madrid	Los Blancos	Spain
5	Chelsea	Blues	England
6	Bayern Munich	Bavarians	Germany
7	Atletico Madrid	Los RojiBlancos	Spain
8	Liverpool	Reds	England
9	Leicester City	Foxes	England
10	Manchester City	Cityzens	England
11	Manchester United	Red Devils	England

8.

```
select club.name,league.name,year
from club,league
where club.club_id=league.champions;
```

NAME	NAME	YEAR
Real Madrid	La Liga	2016
Chelsea	Premier League	2016
Bayern Munich	Bundesliga	2016
FC Barcelona	La Liga	2015
Leicester City	Premier League	2015
Bayern Munich	Bundesliga	2015
FC Barcelona	La Liga	2014
Chelsea	Premier League	2014
Manchester United	Premier League	2012
Bayern Munich	Bundesliga	2012
Real Madrid	La Liga	2011
Manchester City	Premier League	2011
Borussia Dortmund	Bundesliga	2011
FC Barcelona	La Liga	2010
Manchester United	Premier League	2010
Borussia Dortmund	Bundesliga	2010
FC Barcelona	La Liga	2009
Chelsea	Premier League	2009
Bayern Munich	Bundesliga	2009
FC Barcelona	La Liga	2008
More than 20 rows available. Increase rows selector to view more rows.		

9.

```
SELECT player_id FROM player
WHERE TO_CHAR (birthdate,'yyyy')>1990;
```

PLAYER_ID
8
10
13
14
17
18

BIBLIOGRAPHY

- www.tutorialspoint.com
- www.stackoverflow.com
- docs.oracle.com
- www.plsqltutorial.com
- SQL, PL/SQL The programming language of Oracle
  - Ivan Bayross, BPB Publications
- Data Base System Concepts
  - Henry F.Korth & A.Silberschatz. 2nd Ed. McGraw-Hill 1991