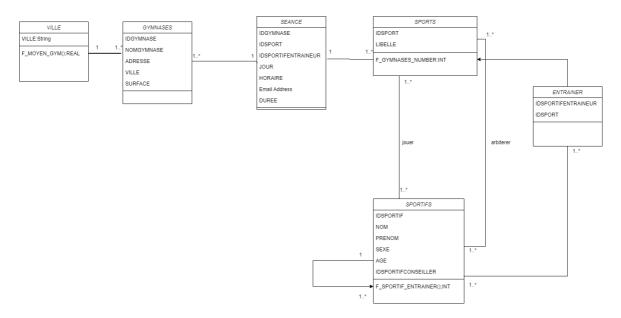
# PROJECT 01 SQL 3-ORACLE BDA

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## Partie I : Modélisation orientée objet

1. Transformez le schéma relationnel en un schéma Objet (diagramme de classes)



## Partie II : Création des TablesSpaces et utilisateur

- 1. Créer deux TableSpaces SQL3\_TBS et SQL3\_TempTBS
- 2. Créer un utilisateur SQL3 en lui attribuant les deux tablespaces créés précédemment

```
CREATE TABLESPACE SQL3_TBS DATAFILE 'sql3_tbs.dbf' SIZE 100M;

CREATE TEMPORARY TABLESPACE SQL3_TempTBS TEMPFILE 'sql3_temptbs.dbf' SIZE 50M;

CREATE USER SQL3 IDENTIFIED BY password DEFAULT TABLESPACE SQL3_TBS TEMPORARY TABLESPACE SQL3_TempTBS;
```

```
SQL> -- Create tablespace SQL3_TBS with datafile
SQL> CREATE TABLESPACE SQL3_TBS DATAFILE 'sql3_tbs.dbf' SIZE 100M;

Tablespace created.

SQL>
SQL> -- Create temporary tablespace SQL3_TempTBS with datafile
SQL> CREATE TEMPORARY TABLESPACE SQL3_TempTBS TEMPFILE 'sql3_temptbs.dbf' SIZE 50M;

Tablespace created.

SQL>
SQL> -- Create user SQL3 with password 'password' and set SQL3_TBS as default and temporary tablespaces
SQL> CREATE USER SQL3 IDENTIFIED BY password DEFAULT TABLESPACE SQL3_TBS TEMPORARY TABLESPACE SQL3_TempTBS;

User created.
```

1. Donner tous les privilèges à cet utilisateur.

```
GRANT ALL PRIVILEGES TO SQL3;
```

```
SQL> GRANT ALL PRIVILEGES TO SQL3;

Grant succeeded.
```

## Partie III : Langage de définition de données

- 1. En se basant sur le diagramme de classes fait, définir tous les types nécessaires. Prendre en compte toutes associations qui existent.
- -LES TYPE INCOMPELTE:
- -Pour la class VILLE on def type TVILLE

```
CREATE TYPE tville AS OBJECT (
ville VARCHAR2(50),
MEMBER FUNCTION F_MOYEN_GYM RETURN NUMERIC
);
/
```

-Pour la class GYMNASE on def type TGYMNASE

```
CREATE TYPE tgymnase AS OBJECT (
idgymnase INT,
nomgymnase VARCHAR2(50),
adresse VARCHAR2(100),
ville ref tville,
surface INT
);
/
```

-Pour la class SEANCE on def type tseance

```
CREATE TYPE tseance AS OBJECT (
idgymnase INT,
idsport INT,
idsportifentraineur INT,
jour VARCHAR2(20),
horaire FLOAT,
duree INT
);
/
```

-Pour la class SPORT on def type tsport

```
CREATE TYPE tsport AS OBJECT (
idsport INT,
libelle VARCHAR2(50),
MEMBER FUNCTION F_GYM_NUMBER RETURN NUMERIC
);
/
```

-Pour la class SPORTIF on def type tsportif

```
CREATE TYPE tsportif AS OBJECT (
idsportif INT,
nom VARCHAR2(50),
prenom VARCHAR2(50),
sexe CHAR(1),
age INT,
idsportifconseiller ref tsportif,
MEMBER FUNCTION F_SPORTIF_ENTRAINER RETURN NUMERIC
```

```
);
/
```

-Pour la class arbitrer on def type tarbitrer

```
CREATE TYPE tarbitrer AS OBJECT (
idsportif INT,
idsport INT
);
/
```

-Pour la class entrainer on def type tentrainer

```
CREATE TYPE tentrainer AS OBJECT (
idsportifentraineur INT,
idsport INT
);
/
```

-Pour la class jouer on def type tjouer

```
CREATE TYPE tjouer AS OBJECT (
idsportif INT,
idsport INT
);
/
```

```
SQL> CONNECT SQL3/password;
Connected.
SQL> CREATE TYPE tville AS OBJECT (
  2 ville VARCHAR2(50),
3 MEMBER FUNCTION F_MOYEN_GYM RETURN NUMERIC
4 );
Type created.
SQL> CREATE TYPE tgymnase AS OBJECT (
  2 idgymnase INT,
3 nomgymnase VARCHAR2(50),
4 adresse VARCHAR2(100),
5 ville ref tville,
      surface INT
Type created.
SQL> CREATE TYPE tseance AS OBJECT (
 QL> CREATE TYPE tseance AS OF 2 idgymnase INT, 3 idsport INT, 4 idsportifentraineur INT, 5 jour VARCHAR2(20), 6 horaire FLOAT, 7 duree INT 8 );
      );
/
Type created.
SQL> CREATE TYPE tsport AS OBJECT (
2 idsport INT,
3 libelle VARCHAR2(50),
4 MEMBER FUNCTION F_GYM_NUMBER RETURN NUMERIC
Type created.
SQL> CREATE TYPE tsportif AS OBJECT (
  2 idsportif INT,
3 nom VARCHAR2(50),
      prenom VARCHAR2(50),
  5 sexe CHAR(1),
  6 age INT,
7 idsportifconseiller ref tsportif,
8 MEMBER FUNCTION F_SPORTIF_ENTRAINER RETURN NUMERIC
Type created.
```

```
SQL> CREATE TYPE tarbitrer AS OBJECT (
2 idsportif INT,
3 idsport INT
4 );
5 /

Type created.

SQL> CREATE TYPE tentrainer AS OBJECT (
2 idsportifentraineur INT,
3 idsport INT
4 );
5 /

Type created.

SQL> CREATE TYPE tjouer AS OBJECT (
2 idsportif INT,
3 idsport INT
4 );
5 /

Type created.
```

### -LES COLLLECTION NECESSAIRE POUR DEF DES ASSIOCATION ENTRE LES CLASS

```
CREATE TYPE t_set_ref_arbiter AS TABLE OF REF tarbitrer;

/
CREATE TYPE t_set_ref_entrainer AS TABLE OF REF tentrainer;

/
CREATE TYPE t_set_ref_jouer AS TABLE OF REF tjouer;

/
CREATE TYPE t_set_ref_sportif AS TABLE OF REF tsportif;

/
CREATE TYPE t_set_ref_gymnases AS TABLE OF REF tGymnase;

/
CREATE TYPE t_set_ref_sports AS TABLE OF REF tsport;

/
CREATE TYPE t_set_ref_sports AS TABLE OF REF tsport;

/
CREATE TYPE t_set_ref_seance AS TABLE OF REF tseance;

/
```

```
SQL> CREATE TYPE t_set_ref_arbiter AS TABLE OF REF tarbitrer;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_entrainer AS TABLE OF REF tentrainer;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_jouer AS TABLE OF REF tjouer;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_sportif AS TABLE OF REF tsportif;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_gymnases AS TABLE OF REF tGymnase;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_sports AS TABLE OF REF tsport;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_sports AS TABLE OF REF tsport;

2 /

Type created.

SQL> CREATE TYPE t_set_ref_seance AS TABLE OF REF tseance;

2 /

Type created.
```

## -LES ATTRIBUTES QUI REPRESNTE LES RELATION ENTRE LES CLASS

### -VILLE

ALTER TYPE tVille ADD ATTRIBUTE ville\_gymnases t\_set\_ref\_gymnases cascade;

```
SQL> desc tville;
Name

Null? Type

VILLE

VARCHAR2(50)

T_SET_REF_GYMNASES

METHOD

MEMBER FUNCTION F_MOYEN_GYM RETURNS NUMBER

SQL>
```

-GYMNASE

ALTER TYPE tGymnase ADD ATTRIBUTE GYMNASES seances REF tseance cascade;

```
Name

Null? Type

IDGYMNASE

NUMBER(38)

NOMGYMNASE

ADRESSE

VARCHAR2(50)

VARCHAR2(100)

VILLE

SURFACE

NUMBER(38)

REF OF TYILLE

SURFACE

NUMBER(38)

REF OF TSEANCE
```

### -SEANCE

ALTER TYPE tseance ADD ATTRIBUTE seances\_gymnases t\_set\_ref\_gymnases cascade;
ALTER TYPE tseance ADD ATTRIBUTE seances\_sport t\_set\_ref\_sports cascade;
ALTER TYPE tseance ADD ATTRIBUTE seances\_sportifs t\_set\_ref\_sportif cascade;

```
QL> desc tseance;
                                                     Null?
IDGYMNASE
                                                                 NUMBER(38)
IDSPORT
                                                                 NUMBER(38)
IDSPORTIFENTRAINEUR
                                                                 NUMBER(38)
JOUR
                                                                 VARCHAR2(20)
HORAIRE
                                                                  FLOAT(126)
DUREE
                                                                 NUMBER(38)
                                                                 T_SET_REF_GYMNASES
T_SET_REF_SPORTS
T_SET_REF_SPORTIF
SEANCES_GYMNASES
SEANCES_SPORT
SEANCES_SPORTIFS
```

### -SPORTIF

```
ALTER TYPE tsportif ADD ATTRIBUTE sportif_arbitres t_set_ref_arbiter cascade;
ALTER TYPE tsportif ADD ATTRIBUTE sportif_entraineurs t_set_ref_entrainer cascade;
ALTER TYPE tsportif ADD ATTRIBUTE sportif_jouer t_set_ref_jouer cascade;
ALTER TYPE tsportif ADD ATTRIBUTE consultant_sportifs t_set_ref_sportif cascade;
```

```
SQL> desc tsportif;
Name
                                                                     Nu112
                                                                                   NUMBER(38)
VARCHAR2(50)
 IDSPORTIF
 MOM
 PRENOM
                                                                                    VARCHAR2(50)
                                                                                    CHAR(1)
NUMBER(38)
 SEXE
 AGE
 IDSPORTIFCONSEILLER
                                                                                   T_SET_REF_ARBITER
T_SET_REF_ENTRAINER
T_SET_REF_DOUER
T_SET_REF_SPORTIF
SPORTIF_ARBITRES
SPORTIF_ENTRAINEURS
SPORTIF_JOUER
CONSULTANT_SPORTIFS
METHOD
MEMBER FUNCTION F_SPORTIF_ENTRAINER RETURNS NUMBER
SQL>
```

### -JOUER

```
ALTER TYPE tjouer ADD ATTRIBUTE jouer_sports REF tsport cascade;
ALTER TYPE tjouer ADD ATTRIBUTE jouer_sportifs REF tsportif cascade;
```

```
Name Null? Type

IDSPORTIF NUMBER(38)

IDSPORT NUMBER(38)

JOUER_SPORTS REF OF TSPORTIF

JOUER_SPORTIFS REF OF TSPORTIF
```

### -ARBITRER

ALTER TYPE tArbitrer ADD ATTRIBUTE arbitrer\_sports REF tsport cascade;
ALTER TYPE tArbitrer ADD ATTRIBUTE arbitrer\_sportifs REF tsportif cascade;

```
OQL> desc tarbitrer;

Name Null? Type

IDSPORTIF NUMBER(38)

IDSPORT NUMBER(38)

ARBITRER_SPORTS REF OF TSPORT

ARBITRER_SPORTIFS REF OF TSPORTIF
```

### -ENTRAINER

ALTER TYPE tentrainer ADD ATTRIBUTE entrainer\_sports REF tsport cascade;
ALTER TYPE tentrainer ADD ATTRIBUTE entrainer\_sportifs REF tsportif cascade ;

```
SQL> desc tentrainer;
Name Null? Type

IDSPORTIFENTRAINEUR NUMBER(38)
IDSPORT NUMBER(38)
ENTRAINER_SPORTS REF OF TSPORT
ENTRAINER_SPORTIFS REF OF TSPORTIF
```

## - SPORT

ALTER TYPE tsport ADD ATTRIBUTE sport\_seance t\_set\_ref\_seance cascade ;

```
SQL> desc tsport;
Name

Null? Type

IDSPORT

LIBELLE

SPORT_SEANCE

METHOD

MEMBER FUNCTION F_GYM_NUMBER RETURNS NUMBER

SQL>
```

### Définir les méthodes permettant de

• Calculer pour chaque sportif, le nombre des sports entrainés.

```
CREATE OR REPLACE TYPE BODY tsportif AS

MEMBER FUNCTION F_SPORTIF_ENTRAINER RETURN NUMERIC IS

F_SPORTIF_ENTRAINER_VAL NUMBER;

BEGIN

SELECT COUNT(deref(COLUMN_VALUE)) INTO F_SPORTIF_ENTRAINER_VAL

FROM TABLE(SELECT sportif_entraineurs FROM sportif

WHERE idsportif = SELF.idsportif);

RETURN F_SPORTIF_ENTRAINER_VAL;

END;

END;

/
```

### -AFFICHAGE REQUET

```
select v.F_SPORTIF_ENTRAINER () from sportif v;
```

### -RESULTAT

• Calculer le nombre de gymnases pour chaque sport.

```
CREATE OR REPLACE TYPE BODY tsport AS

MEMBER FUNCTION F_GYM_NUMBER RETURN NUMERIC IS

F_GYM_NUMBER_VAL NUMBER;

BEGIN

SELECT COUNT(deref(COLUMN_VALUE)) INTO F_GYM_NUMBER_VAL

FROM TABLE(SELECT sport_seance FROM sport WHERE idsport = SELF.idsport);

RETURN F_GYM_NUMBER_VAL;

END;

//
```

## -AFFICHAGE REQUET

```
select v.F_GYM_NUMBER () from sport v;
```

• Calculer la superficie moyenne des gymnases, pour chaque ville.

```
CREATE OR REPLACE TYPE BODY tVille AS

MEMBER FUNCTION F_MOYEN_GYM RETURN NUMERIC IS

F_MOYEN_GYM_VAL NUMBER;

BEGIN

SELECT SUM(G.surface)/COUNT(G.idGymnase) INTO F_MOYEN_GYM_VAL

FROM GYMNASES G

WHERE DEREF(G.ville) = SELF;

RETURN F_MOYEN_GYM_VAL;

END;

END;
```

```
QL> CREATE OR REPLACE TYPE BODY tVille AS

2     MEMBER FUNCTION F_MOYEN_GYM RETURN NUMERIC IS

3     F_MOYEN_GYM_VAL NUMBER;

4     BEGIN

5     SELECT SUM(G.surface)/COUNT(G.idGymnase) INTO F_MOYEN_GYM_VAL

6     FROM GYMNASES G

7     WHERE DEREF(G.ville) = SELF;

8     RETURN F_MOYEN_GYM_VAL;

9     END;

10     END;

11 /

Type body created.
```

### -AFFICHAGE REQUET

```
select v.F_MOYEN_GYM() from ville v;
```

```
SQL> select v.F_MOYEN_GYM(), ville from ville v order by ville;

V.F_MOYEN_GYM() VILLE

400 Alger
280 Alger centre
500 Baba hassen
400 Belouizdad
480 Mr Mourad Raïs
450 Birkhadem
450 Bordj El Bahri
450 Bordj el kiffan
520 Béni Messous
510 Chéraga
620 Dely Brahim

V.F_MOYEN_GYM() VILLE

600 El Achour
620 El Biar
400 El Harrach
350 El Mouradia
500 Hussein Dey
310 Hydra
400 Kouba
450 Les sources
600 Mohammadia
350 Saoula
500 Sidi Mhamed
```

3. Définir les tables nécessaires à la base de données.

### -VILLE

```
CREATE TABLE VILLE OF tVille (primary key(VILLE))
nested table ville_gymnases store as table_t_set_ref_gymnases;
```

```
QL> CREATE TABLE VILLE OF tVille (primary key(VILLE))
2 nested table ville_gymnases store as table_t_set_ref_gymnases;
```

## -GYMNASE

```
CREATE TABLE GYMNASES OF tGymnase(primary key(idgymnase),
foreign key(GYMNASES_SEANCES) references SEANCE);
```

```
SQL> CREATE TABLE GYMNASES OF tGymnase(primary key(idgymnase),
2 foreign key(GYMNASES_SEANCES) references SEANCN;
Table created.
```

#### -SEANCE

```
CREATE TABLE SEANCE OF tseance(primary key(idgymnase,idsport
,IDSPORTIFENTRAINEUR, JOUR, HORAIRE))
nested table SEANCES_SPORTIFS store as table_T_SET_REF_SPORTIF,
nested table SEANCES_GYMNASES store as table_T_SET_REF_SEANCE_GYM,
nested table SEANCES_SPORT store as table_T_SET_REF_SPORTS;
```

### -SPORTIF

```
CREATE TABLE SPORTIF OF tsportif(primary key(IDSPORTIF),
foreign key(IDSPORTIFCONSEILLER) references sportif)
nested table SPORTIF_ARBITRES store as table_T_SET_REF_SPORTIF_AR,
nested table SPORTIF_BUTRAINEURS store as table_T_SET_REF_SPORTIF_ENT,
nested table SPORTIF_JOUER store as table_T_SET_REF_SPORTIF_J ,
nested table CONSULTANT_SPORTIFS store as table_T_SET_REF_CONS_SP ;
```

```
QL> CREATE TABLE SPORTIF OF tsportif(primary key(IDSPORTIF),
2 foreign key(IDSPORTIFCONSEILLER) references sportif)
3 nested table SPORTIF_ARBITRES store as table_T_SET_REF_SPORTIF_AR,
4 nested table SPORTIF_ENTRAINEURS store as table_T_SET_REF_SPORTIF_ENT,
5 nested table SPORTIF_JOUER store as table_T_SET_REF_SPORTIF_J ,
6 nested table CONSULTANT_SPORTIFS store as table_T_SET_REF_CONS_SP ;
able created.
```

### -JOUER

```
CREATE TABLE JOUER OF TJOUER(primary key(IDSPORT,IDSPORTIF),
foreign key(JOUER_SPORTS) references SPORT,
foreign key(JOUER_SPORTIFS) references SPORTIF);
```

```
SQL> CREATE TABLE JOUER OF TJOUER(primary key(IDSPORT,IDSPORTIF),
2 foreign key(JOUER_SPORTS) references SPORT,
3 foreign key(JOUER_SPORTIFS) references SPORTIF);
Table created.
```

### -ARBITRER

```
CREATE TABLE Arbitrer OF tArbitrer (primary key(IDSPORT,IDSPORTIF),
foreign key(ARBITRER_SPORTS) references SPORT,
foreign key(ARBITRER_SPORTIFS) references SPORTIF);
```

```
SQL> CREATE TABLE Arbitrer OF tArbitrer (primary key(IDSPORT,IDSPORTIF),

A foreign key(ARBITRER_SPORTS) references SPORT,

3 foreign key(ARBITRER_SPORTIFS) references SPORTIF);

Table created.
```

## -ENTRAINER

```
CREATE TABLE entrainer OF tentrainer (primary key(IDSPORT,IDSPORTIFENTRAINEUR), foreign key(ENTRAINER_SPORTS) references SPORT,
```

```
foreign key(ENTRAINER_SPORTIFS) references SPORTIF);
```

```
SQL> CREATE TABLE entrainer OF tentrainer (primary key(IDSPORT,IDSPORTIFENTRAINEUR),
2 foreign key(ENTRAINER_SPORTS) references SPORT,
3 foreign key(ENTRAINER_SPORTIFS) references SPORTIF);
Table created.
```

### - SPORT

```
CREATE TABLE SPORT OF tSPORT (primary key(IDSPORT))
nested table SPORT_SEANCE store as table_T_SET_REF_SPORT_SEANCE;
```

```
SQL> CREATE TABLE SPORT OF SSPORT (primary key(IDSPORT))
2 nested table SPORT_SEANCE store as table_T_SET_REF_SPORT_SEANCE;
Table created.
```

## Partie VI: Langage de manipulation de données

1. Remplir toutes les tables par les instances décrites dans le fichier insert.sql en prenant en considération les adaptations nécessaires

-INSERTION ATTRIBUTE VILLE DANS TABLE VILLE (NESTED TABLE VILLE\_GYMNASE EST NULL)

```
INSERT INTO Ville(ville) VALUES('Alger centre');
INSERT INTO Ville(ville) VALUES('Les sources');
INSERT INTO Ville(ville) VALUES('Belouizdad');
INSERT INTO Ville(ville) VALUES('Sidi Mhamed'):
INSERT INTO Ville(ville) VALUES('El Biar');
INSERT INTO Ville(ville) VALUES('El Mouradia');
INSERT INTO Ville(ville) VALUES('Hydra');
INSERT INTO Ville(ville) VALUES('Dely Brahim');
INSERT INTO Ville(ville) VALUES('Kouba');
INSERT INTO Ville(ville) VALUES('Bir Mourad Raïs');
INSERT INTO Ville(ville) VALUES('Birkhadem');
INSERT INTO Ville(ville) VALUES('El Achour');
INSERT INTO Ville(ville) VALUES('Bordj el kiffan');
INSERT INTO Ville(ville) VALUES('Baba hassen');
INSERT INTO Ville(ville) VALUES('Chéraga');
INSERT INTO Ville(ville) VALUES('Alger');
INSERT INTO Ville(ville) VALUES('Hussein Dey');
INSERT INTO Ville(ville) VALUES('Béni Messous');
INSERT INTO Ville(ville) VALUES('Bordj El Bahri');
INSERT INTO Ville(ville) VALUES('Centre commercial-Mohamadia mall');
INSERT INTO Ville(ville) VALUES('Saoula');
INSERT INTO Ville(ville) VALUES('El Harrach');
INSERT INTO Ville(ville) VALUES('Mohammadia');
```

## -INSERTION INTO SEANCE AVEC NESTED TABLE NULL

```
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,1, 'Lundi',9.0,60);
\textbf{INSERT INTO Seance} (\texttt{IDGYMNASE}, \texttt{IDSPORT}, \texttt{IDSPORTIFENTRAINEUR}, \texttt{JOUR}, \texttt{HORAIRE}, \texttt{DUREE}) \ \ \texttt{VALUES} (1, 3, 1, `Lundi', 10.0, 60); \\ \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (1, 3, 1, `Lundi', 10.0, 60); \\ \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{JOU
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR, JOUR,HORAIRE,DUREE) VALUES(1,3,1,'Lundi',11.3,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,1, 'Lundi',14.0,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,1,'Lundi',17.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,1, 'Lundi',19.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2,'Dimanche',17.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2,'Dimanche',19.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2,'Mardi',17.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2, 'Mercredi',17.3,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2, 'Samedi', 15.3,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,2,'Samedi',16.3,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1, 3, 2, 'Samedi', 17.3, 120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,3,'Jeudi',20.0,30);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,3,'Lundi',14.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,3,'Lundi',18.0,30);
\textbf{INSERT INTO Seance} ( \texttt{IDGYMNASE}, \texttt{IDSPORT}, \texttt{IDSPORTIFENTRAINEUR}, \texttt{JOUR}, \texttt{HORAIRE}, \texttt{DUREE}) \ \ \texttt{VALUES} (1, 3, 3, `\texttt{Lundi'}, 19.0, 30); \\ \textbf{INSERT INTO Seance} ( \texttt{IDGYMNASE}, \texttt{IDSPORT}, \texttt{IDSPORTIFENTRAINEUR}, \texttt{JOUR}, \texttt{HORAIRE}, \texttt{DUREE}) \ \ \texttt{VALUES} (1, 3, 3, `\texttt{Lundi'}, 19.0, 30); \\ \textbf{INSERT INTO Seance} ( \texttt{IDGYMNASE}, \texttt{IDSPORT}, \texttt{IDSPORTIFENTRAINEUR}, \texttt{JOUR}, \texttt{HORAIRE}, \texttt{DUREE}) \ \ \texttt{VALUES} (1, 3, 3, `\texttt{Lundi'}, 19.0, 30); \\ \textbf{INSERT INTO Seance} ( \texttt{IDGYMNASE}, \texttt{IDSPORT}, \texttt{IDSPOR
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,3,3,'Lundi',20,0,30):
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(1,5,7, 'Mercredi',17.0,90);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(2,2,57,'Dimanche',17.0,60);
```

```
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(3,1,149, 'Mercredi',11.0,30);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(3, 2, 57, 'Lundi', 16.3, 90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(3, 2, 60, 'Jeudi', 19.0, 60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(4,1,149, 'Vendredi',10.0,30);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(4.5,6, 'Mercredi', 19.0.60):
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(5, 2, 57, 'Lundi', 16.3, 90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(5,5,6,' Jeudi',19.0,60);
\textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (6, 5, 6, 'Vendredi', 19.0, 60); \\ \textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (6, 5, 6, 'Vendredi', 19.0, 60); \\ \textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (6, 5, 6, 'Vendredi', 19.0, 60); \\ \textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (6, 5, 6, 'Vendredi', 19.0, 60); \\ \textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (6, 5, 6, 'Vendredi', 19.0, 60); \\ \textbf{INSERT INTO SEANCE} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{IDSPORT}, \textbf{IDSP
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(6,5,7,'jeudi',17.0,90);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(8,2,57,'Dimanche',17.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(8, 2, 57, 'Lundi', 16.3, 90)
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(8,2,60, 'Vendredi',19.0,60); INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(8,5,7, 'Samedi',17.0,90);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(8,5,7,'Vendredi',14.0,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(9,5,6,'Samedi',19.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(10,2,60, 'Samedi',19.0,60);
\textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (\textbf{10}, \textbf{5}, \textbf{6}, \textbf{'Dimanche'}, \textbf{19}, \textbf{0}, \textbf{60}); \\ \textbf{10}, \textbf{10},
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(10, 5, 7, 'Dimanche', 17.0, 90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(12, 2, 57, 'Dimanche', 17.0, 60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(13, 2, 60, 'Dimanche', 19.0, 60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(13,5,6, 'Mercredi', 20.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(13,5,7, 'Lundi',17.0,90);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(14,1,149,'Mardi',10.0,60);
\textbf{INSERT INTO Seance} (\textbf{IDGYMNASE}, \textbf{IDSPORT}, \textbf{IDSPORT}, \textbf{IDSPORTIFENTRAINEUR}, \textbf{JOUR}, \textbf{HORAIRE}, \textbf{DUREE}) \ \ \textbf{VALUES} (\textbf{14}, \textbf{2}, \textbf{57}, \textbf{'Dimanche'}, \textbf{17}.0, \textbf{60}); \\ \textbf{17}, \textbf{10}, \textbf{10
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(15,2,57,'Lundi',16.3,90); INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(16,2,57,'Lundi',16.3,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(16, 2, 60, 'Lundi', 17.0, 60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(16,2,60, 'Lundi',18.0,60);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR, JOUR,HORAIRE,DUREE) VALUES(16,2,60,'lundi',19.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(16,2,60, 'Lundi',20.0,60);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(16,5,6,'Mercredi',19.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(17, 2, 3, 'Samedi', 17.3, 120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(17, 2, 3, 'Vendredi', 17.3, 120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(17,2,57, 'Dimanche',17.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(17,3,3,'Dimanche',18.0,30);
\textbf{INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR, JOUR,HORAIRE,DUREE) VALUES (17,3,3,'Mardi',20.0,30);}\\
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(17,5,7, 'Mardi',17.0,90);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(18,2,57,'Lundi',16.3,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(18, 2, 60, 'Mardi', 19.0, 60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(18,5,7,'Mercredi',14.0,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(18,5,7, 'Mercredi', 16.0,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(19,2,57, 'Dimanche',17.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(20,5,6, 'Mercredi',19.0,60);
\textbf{INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR, JOUR,HORAIRE,DUREE) VALUES(21,2,57, `Lundi',16.3,30);} \\
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(21,2,60, 'Mardi',19.0,60); INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(21,5,7, 'Mercredi',17.0,30);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(22,2,57, 'Mardi',10.0,30);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(24,1,149, 'Jeudi',9.0,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(24,2,57, 'Mercredi',10.0,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(25,1,149, 'Dimanche',18.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(27,2,57, 'Jeudi',10.0,90); INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(27,5,7, 'Mercredi',14.0,120);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(27, 5, 7, 'Mercredi', 17.0, 90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,1,149, 'Lundi',9.0,30);
INSERT INTO Seance(IDGYMNASE,IDSPORT,IDSPORTIFENTRAINEUR,JOUR,HORAIRE,DUREE) VALUES(28,5,6,'Dimanche',14.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,6, 'Dimanche', 15.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,6,'Dimanche',16.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,6,'Dimanche',17.0,60);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,7,'Mardi',18.0,90); INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,7,'Samedi',18.0,90);
INSERT INTO Seance(IDGYMNASE, IDSPORT, IDSPORTIFENTRAINEUR, JOUR, HORAIRE, DUREE) VALUES(28,5,7, 'Vendredi', 18.0,90);
```

### -MISE A JOUR TABLE SEANCE AVEC NESTED TABLE SEANCES GYMNASES

```
UPDATE SEANCE s
   SET s.SEANCES_GYMNASES =
   CAST(MULTISET(SELECT REF(ent)
   FROM GYMNASES ent
   WHERE ent.IDGYMNASE= s.IDGYMNASE)AS t_set_ref_gymnases);
```

### MISE A JOUR TABLE SEANCE AVEC NESTED TABLE SEANCES SPORT

```
UPDATE SEANCE s
   SET s.SEANCES_SPORT =
   CAST(MULTISET(SELECT REF(ent)
   FROM sport ent
   WHERE ent.IDSPORT= s.IDSPORT)AS t_set_ref_sports);
```

#### MISE A JOUR TABLE SEANCE AVEC NESTED TABLE SEANCES SPORTIFS

```
UPDATE SEANCE s
   SET s.SEANCES_SPORTIFS =
   CAST(MULTISET(SELECT REF(ent)
   FROM sportif ent
   WHERE ent.IDSPORTIF= s.IDSPORTIFENTRAINEUR)AS t_set_ref_sportif);
```

```
SET s.SEANCES_GYMNASES =
         CAST(MULTISET(SELECT REF(ent)
FROM GYMNASES ent
         WHERE ent.IDGYMNASE= s.IDGYMNASE)AS t_set_ref_gymnases);
81 rows updated.
SQL>
SQL>
         UPDATE SEANCE s
SET s.SEANCES_SPORT =
CAST(MULTISET(SELECT REF(ent)
          FROM sport ent
         WHERE ent.IDSPORT= s.IDSPORT)AS t_set_ref_sports);
81 rows updated.
SQL>
SOL>
         UPDATE SEANCE
          SET s.SEANCES_SPORTIFS =
          CAST(MULTISET(SELECT REF(ent)
          FROM sportif ent
         WHERE ent.IDSPORTIF= s.IDSPORTIFENTRAINEUR)AS t_set_ref_sportif);
81 rows updated.
```

```
T_SET_REF_GYMNASES(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTS(00002202081075D4917D194D7BBEA1586D12D04CE44C67DD54F2704768AFAEB3A774766EBFD)
T_SET_REF_SPORTIF(0000220208DEB73CB488EBC4F56A5259FB798E94D2B77D700BA5C3640CA83610AA7821548F4)

T_SET_REF_GYMNASIN (000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTS(00002202081075D4917D194D7BBEA1586D12D04CE44C67DD54F2704768AFAEB3A774766EBFD)
T_SET_REF_SPORTIF(0000220208DEB73CB488EBC4F56A5259FB798E94D2B77D700BA5C3640CA83610AA7821548F4)

T_SET_REF_GYMNASES(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTS(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(0000220208865124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4)

T_SET_REF_GYMNASES(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTS(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTS(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(000022020881394C7405C242348D7DDF33230DAE9F9A279CC7CCB7479880E5EA194CE822BB)
T_SET_REF_SPORTIF(0000220208865124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4)

T_SET_REF_SPORTIF(0000220208865124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4)
```

### -MISE A JOUR TABLE VILLE AVEC NESTED TABLE GYMNASE

```
UPDATE Ville v
SET v.ville_gymnases = CAST(MULTISET(
    SELECT REF(g)
    FROM gymnases g
    WHERE g.ville.ville = v.ville
) AS t_set_ref_gymnases);
```

```
SQL> UPDATE Ville v
2 SET v.ville_gymnases = CAST(MULTISET(
3 SELECT REF(g)
4 FROM gymnases g
5 WHERE g.ville.ville = v.ville
6 ) AS t_set_ref_gymnases);
23 rows updated.
```

#### -INSERTION SUR TABLE SPORT SANS NESTED TABLE

```
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(1,'Basket ball');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(2,'Volley ball');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(3,'Hand ball');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(4,'Tennis');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(5,'Hockey');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(6,'Badmington');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(7,'Ping pong');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(8,'Football');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(8,'Football');
INSERT INTO Sport(IDSPORT,LIBELLE) VALUES(9,'Boxe');
```

#### -INSERTION SUR TABLE GYMNASE AVEC REF VILLE

```
INSERT INTO Gymnases(IDGYMNASE.NOMGYMNASE.ADRESSE.VILLE.SURFACE) VALUES(1.'Five Gym Club'.'Boulevard Mohamed 5'.(SELECT ref(v) FROM vi
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(2, 'Mina Sport', '28 impasse musette les sources', (SELECT REF(v)
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(3, 'Aït Saada', 'Belouizdad', (SELECT REF(v) FROM ville v WHERE v
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(4, 'Bahri Gym', 'Rue Mohamed Benzineb', (SELECT REF(v) FROM ville
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(5, 'Ladies First', '3 Rue Diar Naama N° 03', (SELECT REF(v) FROM
INSERT INTO Gymnases(IDGYMNASE,NOMGYMNASE,ADRESSE,VILLE,SURFACE) VALUES(6,'C.T.F Club','Rue Sylvain FOURASTIER',(SELECT REF(v) FROM vi
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(7, 'Body Fitness Center', 'Rue Rabah Takdjourt', (SELECT REF(v) F
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(8, 'Club Hydra Forme', 'Rue de l''Oasis', (SELECT REF(v) FROM vil
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(9, 'Profitness Dely Brahim', '26 Bois des Cars 3', (SELECT REF(V
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(10, 'CLUB SIFAKS', 'Rue Ben Omar 31', (SELECT REF(v) FROM ville
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(11, 'Gym ZAAF Club', '19 Ave Merabet Athmane', (SELECT REF(v) FRO
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(12, 'GYM power', 'villa N°2, Chemin Said Hamdine', (SELECT REF(v)
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(13, 'Icosium sport', 'Rue ICOSUM', (SELECT REF(v) FROM ville v W INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(14, 'GIGA Fitness', 'res, Rue Hamoum Tahar', (SELECT REF(v) FROM
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(15, 'AC Fitness Et Aqua', 'Lotissement FAHS lot A n 12 parcelle
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(16, 'MELIA GYM', 'Résidence les deux bassins Sahraoui local N° 0
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(17, 'Sam Gym Power', 'Rue Mahdoud BENKHOUDJA', (SELECT REF(v) FR
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(18, 'AQUAFORTLAND SPA', 'Bordj el kiffan', (SELECT REF(V) FROM vi
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(19, 'GoFitness', 'Lotissement el louz n°264', (SELECT REF(v) FRO
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(20, 'Best Body Gym', 'Cité Alioua Fodil', (SELECT REF(v) FROM vi
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(21, 'Power house gym', 'Cooperative Amina 02 Lot 15', (SELECT RE INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(22, 'POWER ZONE GYM', 'Chemin Fernane Hanafi', (SELECT REF(v) FR
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(23, 'World Gym', '14 Boulevard Ibrahim Hadjress', (SELECT REF(v)
INSERT INTO Gymnases(IDGYMNASE,NOMGYMNASE,ADRESSE,VILLE,SURFACE) VALUES(24,'Moving Club','Bordj El Bahri',(SELECT REF(v) FROM ville v
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(25, 'Tiger gym', 'Route de Bouchaoui', (SELECT REF(v) FROM ville
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(26, 'Lion CrossFit', 'Centre commercial-Mohamadia mall', (SELECT
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(27, 'Étoile sportive', 'Saoula', (SELECT REF(v) FROM ville v WHER
INSERT INTO Gymnases(IDGYMNASE, NOMGYMNASE, ADRESSE, VILLE, SURFACE) VALUES(28, 'Fitness life gym', 'El Harrach', (SELECT REF(V) FROM ville v
```

## -MISTE A JOUR TABLE SPORT AVEC NESTED TABLE SEANCE

```
UPDATE sport s
SET s.sport_seance = CAST(MULTISET(
    SELECT REF(sec)
    FROM seance sec
    WHERE sec.idsport= s.idsport
) AS T_SET_REF_SEANCE);
```

```
SQL> UPDATE sport s

2 SET s.sport_seance = CAST(MULTISET(

3 SELECT REF(sec)

4 FROM seance sec

5 WHERE sec.idsport= s.idsport

6 ) AS T_SET_REF_SEANCE);

9 rows updated.
```

#### -MISE A JOUR TABLE VILLE AVEC NESTED TABLE GYMNASE

```
UPDATE Ville v
SET v.ville_gymnases = CAST(MULTISET(
    SELECT REF(g)
    FROM gymnases g
    WHERE g.ville.ville = v.ville
) AS t_set_ref_gymnases);
```

```
SQL> UPDATE Ville v
2 SET v.ville gymnases = CAST(MULTISET(
3 SELECT REF(g)
4 FROM gymnases g
5 WHERE g.ville.ville = v.ville
6 ) AS t_set_ref_gymnases);
23 rows updated.

SQL>
```

## -INSERTION SPROTIF

```
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(1, 'BOUTAHAR', 'Abderahim', 'M', 30, NULL);
INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(2, 'BOUROUBI', 'Anis', 'M', 28, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(3, 'BOUZIDI', 'Amel', 'F', 25, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(4, 'LACHEMI', 'Bouzid', 'M', 32, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(5, 'AAKOUB', 'Linda', 'F', 22, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(6, 'ABBAS', 'Sophia', 'F', 30, (SELECT ref(sc) FROM sportif SINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(6, 'ABDAS', 'Sophia', 'F', 30, (SELECT ref(sc) FROM sportif SINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(7, 'HADJ', 'Zouhir', 'M', 25, (SELECT ref(sc) FROM sportif SINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(8, 'HAMADI', 'Hani', 'M', 39, (SELECT ref(sc) FROM sportif SC) FROM SPORTIF SCONSEILLER) VALUES(8, 'HAMADI', 'Hani', 'M', 30, (SELECT ref(sc) FROM sportif SC) FROM SPORTIF SCONSEILLER) VALUES(8, 'HAMADI', 'HANDI', 'HANDI', 'HADI', 'M', 23, (SELECT REF(SC) FROM SPORTIF SCONSEILLER) VALUES(8, 'HAMADI', 'MORIA', 'MORIA
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(9,'ABDELMOUMEN','Nadia','F',23,(SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(10,'ABAD','Abdelhamid','M',23,(SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(11,'ABAYAHIA','Amine','M',24,(SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(12,'ABBACI','Riad','M',24,(SELECT ref(sc) FROM sportif sportif(IDSPORTIFCONSEILLER) VALUES(12,'ABBACI','Riad',
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(13, 'ABBACI', 'Mohamed', 'M', 22, (SELECT ref(sc) FROM sporti
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(14, 'ABDELOUAHAB', 'Lamia', 'F', 24, (SELECT ref(sc) FROM spo
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(15, 'ABDEMEZIANE', 'Majid', 'M', 25, (SELECT ref(sc) FROM spo
  INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(16, 'BENOUADAH', 'Lamine', 'M', 24, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(17, 'ACHAIBOU', 'Rachid', 'M', 22, (SELECT ref(sc) FROM sport profit in the second profit in th
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(18, 'HOSNI', 'Leila', 'F', 25, (SELECT ref(sc) FROM sportif s
  INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(19, 'ABERKANE', 'Adel', 'M', 25, (SELECT ref(sc) FROM sportif
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(20, 'AZOUG', 'Racim', 'M', 25, (SELECT ref(sc) FROM sportif s
       --INSERT 21 NOWWWWWWWWWWWW
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(21,'BABACI','Mourad','M',22,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(22,'BAKIR','Ayoub','M',25,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(23,'BEHADI','Youcef','M',24,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(24,'AMARA','Nassima','F',23,(SELECT ref(sc) FROM sportif
  INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(25, 'AROULL', 'Lyes', 'M', 23, (SELECT ref(sc) FROM sportif s INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(26, 'BAALI', 'Leila', 'F', 23, (SELECT ref(sc) FROM sportif s INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(27, 'BADI', 'Hatem', 'M', 23, (SELECT ref(sc) FROM sportif sc
   INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(28,'RABAHI','Rabah','M',40,(SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(29,'ROUSSELI','Lamice','F',22,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(30,'CHIKHI','Nidal','M',24,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(31,'SETIHA','Moustapha','M',22,(SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(32,'COTERI','Daouad','M',23,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(33,'RAMELI','Sami','M',23,(SELECT ref(sc) FROM sportif sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(33,'RAMELI','Sami','M',23,(SELECT ref(sc) FROM sportif sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(33,'RAMELI','Sami','M',23,(SELECT ref(sc) FROM sportif sporti
   INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(34, 'LEHIRACHE', 'Oussama', 'M', 24, (SELECT ref(sc) FROM spo
  INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(35,'TERIKI','Yacine','M',24,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(36,'DJELOUDANE','Zinedine','M',28,(SELECT ref(sc) FROM s
    -- INSRT 44 BEFOREEEEEE
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INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(38, 'MESSOUNI', 'Ismail', 'M', 24, (SELECT ref(sc) FROM sport
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(39, 'MORELI', 'Otheman', 'M', 24, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(40, 'FATAHI', 'Majid', 'M', 23, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(41, 'DELHOUME', 'Elina', 'F', 22, (SELECT ref(sc) FROM sporti
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(42, 'BEHADI', 'Nadir', 'M', 23, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(43, 'MATI', 'Dalia', 'F', 23, (SELECT ref(sc) FROM sportif sc
    ----INSERT 21 BEFOREEEE
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(44, 'ADIBOU', 'Ibrahim', 'M', 28, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(45, 'CHALI', 'Karim', 'M', 25, NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(46, 'DOUDOU', 'Islam', 'M', 24, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(47, 'Grine', 'Célina', 'F', 25, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(48, 'HEDDI', 'Zohra', 'F',23,(SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(48, 'HEDDI', 'Sandra', 'F',24, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(50, 'KALI', 'Yasser','M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(50, 'KALI', 'Yasser','M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(51, 'LAJEL', 'Fouad', 'M',24, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 'Rami', 'M',22, (SELECT ref(sc) FROM sportif's INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(52, 'DANDOUR', 
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(53, 'DEMMERA', 'Houcine', 'M', 22, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(54, 'ELKABBADJ', 'Mohammed', 'M', 23, (SELECT ref(sc) FROM sp
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(55,'FEROLI','Omer','M',23,(SELECT ref(sc) FROM sportif s
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(56,'GUERRAOUI','Zohra','F',25,(SELECT ref(sc) FROM sport
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(57, 'BOUACHA', 'Aziz', 'M',25, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(58, 'GUITENI', 'Adam', 'M',23, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(59, 'KACI', 'Samia', 'F', 23, NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(60, 'TIZEGHAT', 'Badis', 'M', 32, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(61, 'LAZARRI', 'Jamel', 'M', 27, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(62, 'BAZOUDI', 'Jaouad', 'M', 32, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(63,'AMANI','Fadi','M',30,(SELECT ref(sc) FROM sportif sc
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(64, 'LANORI', 'Faiza','F',30,(SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(65,'CHAADI','Mourad','M',30,NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(66, 'DANDANE', 'Mohamed', 'M', 30, (SELECT ref(sc) FROM sport
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(67, 'FATTIMI', 'Dalila', 'F', 26, (SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(68,'REGHI','Jazia','F',30,(SELECT ref(sc) FROM sportif s
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(69, 'MARADI', 'Hadjer', 'F', 25, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(70, 'BELMADI', 'Nadji', 'M', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(70, BELMADI, Majl, M',30,(SELECT ref(sc) FROM Sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(71, 'DELAROCHI', 'Racim', 'M',30,(SELECT ref(sc) FROM Sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(72, 'MARTALI', 'Bouzid', 'M',22,(SELECT ref(sc) FROM Sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(73, 'DALLIMI', 'Douad', 'M',30,(SELECT ref(sc) FROM Sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(74, 'OUBACHA', 'Adel', 'M',30, (SELECT ref(sc) FROM Sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(75, 'SAADI', 'Nihal', 'F', 39, (SELECT ref(sc) FROM sportif s
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(76, 'HALGATTI', 'Camelia', 'F', 30, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(77, 'HIDDOUCI', 'Farid', 'M', 30, (SELECT ref(sc) FROM sportINSERT INTO SportIF(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(77, 'HIDDOUCI', 'Farid', 'M', 30, (SELECT ref(sc) FROM sportIF) (SELECT REF) (SELECT REF)
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(78, 'CHAOUAH', 'Jamel', 'M', 30, NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(79, 'HANDI', 'Jaouad', 'M', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(80, 'HOCHET', 'Ramezi', 'M', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(81, 'DROULLONI', 'Jaouida', 'F', 30, (SELECT ref(sc) FROM spo
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(82,'HOULEMI','Lyes','M',40,(SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(83, 'LOUATI', 'Ahmed', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(84, 'SALLADJ', 'Miloud', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(85, 'HAMARI', 'Anes', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(86, 'GALLOTI', 'Boualem', 'M',30, (SELECT ref(sc) FROM sportif INSERT, 'M',30, 'GALLOTI', 'Boualem', 'M',30
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(87, 'KASBADJI', 'Fateh', 'M', 30, (SELECT ref(sc) FROM sporti
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(88, 'JENOURI', 'Rachid', 'M', 30, (SELECT ref(sc) FROM sporti
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(89, 'RIHABI', 'Jamel', 'M', 30, NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(90, 'DERARNI', 'Nadir', 'M', 30, (SELECT ref(sc) FROM sportif
 -- INSERT 98 FIRSTTTTTTTTTTTTTTTTTT
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(91, 'BATERAOUI', 'Zinedine', 'M', 30, (SELECT ref(sc) FROM sp
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(92,'HADJI','Jamel','M',22,(SELECT ref(sc) FROM sportif s
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(93, 'CAUCHARDI', 'Nabil', 'M', 30, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(94, 'LEROUDI', 'Moussa', 'M', 36, (SELECT ref(sc) FROM sporti
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(95, 'ESTANBOULI', 'Mazine', 'M', 30, (SELECT ref(sc) FROM spo
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(96, 'JANID', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(97, 'BONHOMMANE', 'Bassim', 'M', 30, NULL);
  --INSRRT 98 FIRSTTTTTTTTTTTTTTTT
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(98, 'RIADI', 'Walid', 'M', 30, (SELECT ref(sc) FROM sportif s
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(99, 'BONETI', 'Djalal', 'M', 32, NULL);
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(100, 'LESOIFI', 'Djamil', 'M', 30, (SELECT ref(sc) FROM sport
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(101, 'SWAMI', 'Esslam', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(102, 'DAOUDI', 'Adel', 'M', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(103, 'LAAMOURI', 'Nasssim', 'M', 30, (SELECT ref(sc) FROM spo
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(104, 'SEHIER', 'Dihia', 'F', 30, (SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(105, 'STITOUAH', 'Fouad', 'M', 30, (SELECT ref(sc) FROM sport
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(106, 'BAADI', 'Hani', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(107, 'BOURAS', 'Nazim', 'M', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(108, 'AIT AMARA', 'Salim', 'M', 30, (SELECT ref(sc) FROM spor
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(109, 'SAGOU', 'Bassel', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(110, 'ROULLADI', 'Aissa', 'M', 30, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(111, 'BOUTINE', 'Mohamed', 'M', 30, (SELECT ref(sc) FROM spor
 INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(112, 'LOUATI', 'Islam', 'M',30,(SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(113, 'AID', 'Naim', 'M', 30, (SELECT ref(sc) FROM sportif sc
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(114, 'MICHALIKH', 'Asma', 'F', 22, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(115, 'LEMOUSSI', 'Amine', 'M', 30, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(116, 'BELIFA', 'Samia', 'F', 30, (SELECT ref(sc) FROM sportif
```

```
INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(118, 'IGHOLI', 'Lyes', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(119, 'GUEMEZ', 'Jaouad', 'M', 30, (SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(120, 'LECOM', 'Aissa', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(121, 'HOUAT', 'Aziz', 'M', 30, (SELECT ref(sc) FROM sportif s
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(122, 'BEQUETA', 'Aicha', 'F', 30, (SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(123, 'RATENI', 'Walid', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(124, 'TOUAT', 'Yasmine', 'F', 30, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(125, 'JALONI', 'Aimad', 'M',30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(126, 'DEBOUBA', 'yasser', 'M',30, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(127, 'GASTAB', 'Chouaib', 'M',30, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(128, 'GIRONI', 'Younes', 'M',30, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(129, 'DABONI', 'Rachid', 'M',30, (SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(129, 'DABONI', 'Rachid', 'M',30, (SELECT ref(sc) FROM sporti
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(130, 'LACHOUBI', 'Kamel', 'M', 30, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(131, 'GALLOI', 'Nadira', 'F', 30, (SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(132, 'DORONI', 'Yanis', 'M', 30, (SELECT ref(sc) FROM sportif
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(133, 'LENOUCHI', 'Youcef', 'M', 30, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(134, 'LERICHE', 'Hadi', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(135, 'MANSOUR', 'Lamine', 'M', 30, (SELECT ref(sc) FROM sportif INSERT INTO SPORTIF INTO
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(136, 'LABOULAIS', 'Fadia', 'F', 26, (SELECT ref(sc) FROM spor
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(137, 'DOUDOU', 'Faiza', 'F', 26, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(138, 'MAALEM', 'Lamia', 'F', 26, (SELECT ref(sc) FROM sportif
  INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(139,'BESNARD','Salma','F',26,(SELECT ref(sc) FROM sporti
INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(140, 'BELHAMID', 'Hadjer', 'F', 26, (SELECT ref(sc) FROM sport INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(141, 'BOUAAZA', 'Asma', 'F', 26, (SELECT ref(sc) FROM sportif INSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(142, 'CORCHI', 'Melissa', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO Sportif(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT INTO SportIf(IDSPORTIF,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT ref(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT REF(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT REF(sc) FROM sportINSERT,NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(143, 'BELAID', 'Jaouida', 'F', 26, (SELECT REF(sc) FROM SPORTIFCONSEILLER) VALUES(143, 'BELAID', 
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(144, 'GASMI', 'Souad', 'F', 26, (SELECT ref(sc) FROM sportif
INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(145, 'LAMMARA', 'Maria', 'F',25, (SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(146, 'DABOUB', 'Ramezi','M',25, (SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(147, 'HASSINI', 'Nadia', 'F',25, (SELECT ref(sc) FROM sporti INSERT INTO Sportif(IDSPORTIF,NOM,PRENOM,SEXE,AGE,IDSPORTIFCONSEILLER) VALUES(148, 'KALOUNE', 'Maria', 'F',27, (SELECT ref(sc) FROM sporti
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(149, 'BELHAOUA', 'Besma', 'F', 27, (SELECT ref(sc) FROM sport
 INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(150, 'BELAID', 'Fouad', 'M', 25, (SELECT ref(sc) FROM sportif
  INSERT INTO Sportif(IDSPORTIF, NOM, PRENOM, SEXE, AGE, IDSPORTIFCONSEILLER) VALUES(151, 'HENDI', 'Mouad', 'M', 25, (SELECT ref(sc) FROM sportif
```

### -INSERTION DANS SPORTIF NESTED TABLE SPORTIF\_ARBITRES

```
UPDATE sportif s
SET s.SPORTIF_ARBITRES =
    CAST(MULTISET(SELECT REF(ent)
    FROM arbitrer ent
    WHERE ent.IDSPORTIF= s.idsportif)AS t_set_ref_arbiter);
```

## -INSERTION DANS SPORTIF NESTED TABLE SPORTIF\_ENTRAINEURS

```
UPDATE sportif s
SET s.SPORTIF_ENTRAINEURS =
   CAST(MULTISET(SELECT REF(ent)
   FROM entrainer ent
   WHERE ent.IDSPORTIFENTRAINEUR= s.idsportif)AS T_set_ref_entrainer);
```

## -INSERTION DANS SPORTIF NESTED TABLE SPORTIF\_JOUER

```
UPDATE sportif s
SET s.SPORTIF_JOUER =
   CAST(MULTISET(SELECT REF(ent)
   FROM JOUER ent
   WHERE ent.IDSPORTIF= s.idsportif)AS t_set_ref_jouer);
```

```
SQL> UPDATE sportif s
     SET s.SPORTIF_ARBITRES =
         CAST(MULTISET(SELECT REF(ent)
         FROM arbitrer ent
         WHERE ent.IDSPORTIF= s.idsportif)AS t_set_ref_arbiter);
151 rows updated.
SQL> UPDATE sportif s
     SET s.SPORTIF_ARBITRES =
  3
         CAST(MULTISET(SELECT REF(ent)
 4
         FROM arbitrer ent
         WHERE ent.IDSPORTIF= s.idsportif)AS t_set_ref_arbiter);
                                           k
151 rows updated.
SQL>
         UPDATE sportif s
SQL>
    SET s.SPORTIF_ENTRAINEURS =
CAST(MULTISET(SELECT REF(ent)
FROM entrainer ent
         WHERE ent.IDSPORTIFENTRAINEUR= s.idsportif)AS T_set_ref_entrainer);
151 rows updated.
50L>
         UPDATE sportif s
50L>
     SET s.SPORTIF_JOUER =
CAST(MULTISET(SELECT REF(ent)
         FROM JOUER ent
         WHERE ent.IDSPORTIF= s.idsportif)AS t_set_ref_jouer);
151 rows updated.
SQL> _
```

### -VERIFICATION QUE NESTED TABLE SONT MISE A JOUR

### -INSERTION TABLE ENTRAINER

```
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(1,1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(1,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(1,3);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(1,5);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(1,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,3);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,4);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,5);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,5);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(2,9);
```

```
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(3,1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(3,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(3,3);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(3,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR.IDSPORT) VALUES(4.1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(4,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(4,9);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(6,5);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(6,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(6,9);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR.IDSPORT) VALUES(7.2):
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR.IDSPORT) VALUES(7.3);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(7,5);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(7,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(29,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(30,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(31,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR.IDSPORT) VALUES(32.7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(35,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(35,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(36,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(38,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(40,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(40,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR.IDSPORT) VALUES(48.6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(50,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(56,6);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(57,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(57,4);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(58,2);
{\tt INSERT\ INTO\ Entrainer(IDSPORTIFENTRAINEUR, IDSPORT)\ VALUES (58,4);}
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(59,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(59,4);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(60,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(60,4);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(60,7);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(61,2);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(61,4);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(149,1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR, IDSPORT) VALUES(151,1);
INSERT INTO Entrainer(IDSPORTIFENTRAINEUR,IDSPORT) VALUES(151,3);
```

## -MISE A JOUR SOUS COLUMN ENTRAINER\_SPORTS

```
UPDATE entrainer s
SET s.ENTRAINER_SPORTS =
    (SELECT REF(sp)
    FROM sport sp
    WHERE sp.idsport= s.idsport);

UPDATE entrainer s
SET s.ENTRAINER_SPORTIFS=
    (SELECT REF(sp)
    FROM sportif sp
    WHERE sp.IDSPORTIF= s.IDSPORTIFENTRAINEUR);
```

```
SQL> UPDATE entrainer s
2 SET s.ENTRAINER_SPORTIFS=
3 (SELECT REF(sp)
4 FROM sportif sp
5 WHERE sp.IDSPORTIF= s.IDSPORTIFENTRAINEUR);
54 rows updated.
```

```
32 rows selected.

SQL> UPDATE entrainer s
2 SET s.ENTRAINER_SPORTS =
3 (SELECT REF(sp)
4 FROM sport sp
5 WHERE sp.idsport= s.idsport);

54 rows updated.

SQL>
```

```
QL> select entrainer_sportifs from entrainer ;
NTRAINER_SPORTIFS
000022020831512B482FDF4BE58042201DD4C1D3BA77D700BA5C3640CA83610AA7821548F4
 00022020831512B482FDF4BE58042201DD4C1D3BA77D700BA5C3640CA83610AA7821548F4
 00022020831512B482FDF4BE58042201DD4C1D3BA77D700BA5C3640CA83610AA7821548F4
000022020831512B482FDF4BE58042201DD4C1D3BA77D700BA5C3640CA83610AA7821548F4
 00022020831512B482FDF4BE58042201DD4C1D3BA77D700BA5C3640CA83610AA7821548F4
00002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
 0002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
00002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
00002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
 0002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
 0002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
00002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
 0002202085D6554038261476AB61F3E44ECC77C1F77D700BA5C3640CA83610AA7821548F4
 000220208CFCDB0AA7FE44916B1A24BBB69C5349177D700BA5C3640CA83610AA7821548F4
 000220208CFCDB0AA7FE44916B1A24BBB69C5349177D700BA5C3640CA83610AA7821548F4
0000220208CFCDB0AA7FE44916B1A24BBB69C5349177D700BA5C3640CA83610AA7821548F4
0000220208CFCDB0AA7FE44916B1A24BBB69C5349177D700BA5C3640CA83610AA7821548F4
 0002202080BEC2E6CB05F48F89C38DEA1B2F85F0F77D700BA5C3640CA83610AA7821548F4
 0002202080BEC2E6CB05F48F89C38DEA1B2F85F0F77D700BA5C3640CA83610AA7821548F4
00002202080BEC2E6CB05F48F89C38DEA1B2F85F0F77D700BA5C3640CA83610AA7821548F4
 000220208DEB73CB48EBC4F56A5259FB798E94D2B77D700BA5C3640CA83610AA7821548F4
0000220208DEB73CB48EBC4F56A5259FB798E94D2B77D700BA5C3640CA83610AA7821548F4
 000220208DEB73CB48EBC4F56A5259FB798E94D2B77D700BA5C3640CA83610AA7821548F4
 000220208A65124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4
0000220208A65124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4
 000220208A65124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4
 000220208A65124B36EFA4344BB52613B5DAD96BD77D700BA5C3640CA83610AA7821548F4
00002202086ACB52FD976C4E06ACA18CA39A34EB7377D700BA5C3640CA83610AA7821548F4
 000220208C427293FAC55460496634637F88E035B77D700BA5C3640CA83610AA7821548F4
 0002202081C5B6AC1E243450D938E6B93F287D89C77D700BA5C3640CA83610AA7821548F4
 000220208A5F91ABA49F740FFA551DAEC56594C4377D700BA5C3640CA83610AA7821548F4
0000220208805ECF30C9F4446298619A77DE12DCF977D700BA5C3640CA83610AA7821548F4
0000220208805ECF30C9F4446298619A77DE12DCF977D700BA5C3640CA83610AA7821548F4
 0002202087E3244CA3E1447DDADA041F3CADD051477D700BA5C3640CA83610AA7821548F4
 0002202089E0140D518744B6590C2563438972FAC77D700BA5C3640CA83610AA7821548F4
00002202087458779B65894AE286B627275003A30C77D700BA5C3640CA83610AA7821548F4
 0002202087458779B65894AE286B627275003A30C77D700BA5C3640CA83610AA7821548F4
 000220208EC0A468D1EFC4C32A2719510ABB87D4A77D700BA5C3640CA83610AA7821548F4
 0002202088F7F664337FD4A4EBE9B3D1E2F13CB5277D700BA5C3640CA83610AA7821548F4
000022020864E768748A234BE881AD2B9AC4786F4177D700BA5C3640CA83610AA7821548F4
0000220208CD6E5421D4A6492EB13669E97875FF9977D700BA5C3640CA83610AA7821548F4
 000220208CD6E5421D4A6492EB13669E97875FF9977D700BA5C3640CA83610AA7821548F4
0000220208F55875CA3AC34B75A62B25FD18CE6C0777D700BA5C3640CA83610AA7821548F4
0000220208F55875CA3AC34B75A62B25FD18CE6C0777D700BA5C3640CA83610AA7821548F4
 0002202085F78FD3B7B204744AB34B8B1754B118A77D700BA5C3640CA83610AA7821548F4
 0002202085F78FD3B7B204744AB34B8B1754B118A77D700BA5C3640CA83610AA7821548F4
 00022020876E8BB68957D436085EA27D030C0FC9977D700BA5C3640CA83610AA7821548F4
000022020876E8BB68957D436085EA27D030C0FC9977D700BA5C3640CA83610AA7821548E4
000022020876E8BB68957D436085EA27D030C0FC9977D700BA5C3640CA83610AA7821548F4
 000220208A1E2C4FB52E84ACE8CBCF94193A70D2F77D700BA5C3640CA83610AA7821548F4
 000220208A1E2C4FB52E84ACE8CBCF94193A70D2F77D700BA5C3640CA83610AA7821548F4
000022020850B5D369AB934DEA98E2E2594CCBEC6E77D700BA5C3640CA83610AA7821548E4
 00022020830BD07A4CEAA41E18132011E10FD526677D700BA5C3640CA83610AA7821548F4
 00022020830BD07A4CEAA41E18132011E10FD526677D700BA5C3640CA83610AA7821548F4
54 rows selected.
```

## -INSERTION SUR JOUER

```
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(1,2):
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(1,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(1,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(2,1);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(2,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(2,7);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(2,8);
INSERT INTO Jouer(IDSPORTIF.IDSPORT) VALUES(3.2):
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(3,7);
INSERT INTO Jouer(IDSPORTIF.IDSPORT) VALUES(4.2):
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(4,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(5,1);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(5,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(5,6);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(5,7);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(6,1);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(6,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(6,3);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(6,7);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(7,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(7,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(7,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(9,2);
```

```
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(9,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(9,6);
{\tt INSERT\ INTO\ Jouer(IDSPORTIF, IDSPORT)\ VALUES(10,2);}
{\tt INSERT\ INTO\ Jouer(IDSPORTIF,IDSPORT)\ VALUES(10,4);}
INSERT INTO Jouer(IDSPORTIF.IDSPORT) VALUES(10.6):
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(10,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(11,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(11,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(11,8);
{\tt INSERT\ INTO\ Jouer(IDSPORTIF,IDSPORT)\ VALUES(12,2);}
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(12,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(12.8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(13,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(13,6);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(13,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(14,1);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(14,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(14,7);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(15,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(15,4);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(15,8);
{\tt INSERT\ INTO\ Jouer(IDSPORTIF, IDSPORT)\ VALUES(16,2);}
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(16,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(17,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(17,6);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(17,8);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(18,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(19,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(19,3);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(19,8);
{\tt INSERT\ INTO\ Jouer(IDSPORTIF, IDSPORT)\ VALUES(20,1);}
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(20,2);
INSERT INTO Jouer(IDSPORTIF, IDSPORT) VALUES(20,3);
```

```
SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(142,4);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(143,4);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(144,4);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(149,1);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(151,1);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(151,3);

1 row created.

SQL> INSERT INTO Jouer(IDSPORTIF,IDSPORT) VALUES(151,3);

1 row created.
```

## MISE A JOUR NESTED TABLE JOUER\_SPORTS et JOUER\_SPORTIFS

```
UPDATE Jouer s
SET s.JOUER_SPORTIFS=
   (SELECT REF(sp)
   FROM sportif sp
   WHERE sp.IDSPORTIF= s.IDSPORTIF);

UPDATE Jouer s
SET s.JOUER_SPORTS=
   (SELECT REF(sp)
   FROM sport sp
   WHERE sp.idsport= s.idsport);
```

```
SQL> UPDATE Jouer s
2  SET s.JOUER_SPORTIFS=
3  (SELECT REF(sp)
4  FROM sportif sp
5  WHERE sp.IDSPORTIF= s.IDSPORTIF);
355 rows updated.
```

```
SQL> UPDATE Jouer s

2 SET s.JOUER_SPORTS=

3 (SELECT REF(sp)

4 FROM sport sp

5 WHERE sp.idsport= s.idsport);

355 rows updated.
```

```
123 8
00002202088839F1966A6B48B4B3D4FDB4D9421CB34C67DD54F2704768AFAEB3A74766EBFD
0000220208869245D3A779945F98697236CA146928877D700BA5C3640CA83610AA7821548F4

127 8
500002202088839F1966A6B48B4B3D4FDB4D9421CB34C67DD54F2704768AFAEB3A74766EBFD
00002202080415CB2974694CE1979D22B2D4904C1A77D700BA5C3640CA83610AA7821548F4

132 7
0000220208E031362428DF483C82906D8AD4E952754C67DD54F2704768AFAEB3A74766EBFD
000022020807E8F3F6B24D4A038EF7F7798406E95C77D700BA5C3640CA83610AA7821548F4

138 3
00002202084E9B955CA91F43A98BE016DA47FA7BF84C67DD54F2704768AFAEB3A74766EBFD
000022020802AFDD1B6674C8491534C588924AA3F77D700BA5C3640CA83610AA7821548F4

149 1
0000220208C21E7946E5374EAE97CBF76F8C8100374C67DD54F2704768AFAEB3A74766EBFD
0000220208S0B5D369AB934DFA98E2E2594CCBFC6F77D700BA5C3640CA83610AA7821548F4
```

CHAQUE ADRESSE REF A LINE DANS SPORTIF ET SPORT

## -INSERTION SUR ARBITRER

```
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(1,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(1,2);
INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(1,5);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(2,5);
{\tt INSERT\ INTO\ Arbitrer(IDSPORTIF,IDSPORT)\ VALUES(2,8);}
INSERT INTO Arbitrer(IDSPORTIF.IDSPORT) VALUES(3.2);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(3,6);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(3,7);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(4,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(4,2);
INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(4,7);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(4,9);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(5,7);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(6,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(6,5);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(6,7);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(7,2);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(7,3);
INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(7,5);
INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(19,2);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(20,2);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(29,7);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(32,7);
INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(35,6);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(59,4);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(60,2);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(94,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(98,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(105,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(149,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(151,1);
INSERT INTO Arbitrer(IDSPORTIF, IDSPORT) VALUES(151,3);
```

```
Insert Into Arbitrer(IDSPORTIF,IDSPORT) VALUES(60,2);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(94,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(98,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(105,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(149,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(151,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(151,1);

1 row created.

SQL> INSERT INTO Arbitrer(IDSPORTIF,IDSPORT) VALUES(151,3);

1 row created.
```

## -MISE A JOUR NESTED COLUMNS ARBITRER\_SPORTS et ARBITRER\_SPORTIFS

```
UPDATE ARBITRER s
SET s.ARBITRER_SPORTIFS=
   (SELECT REF(sp)
   FROM sportif sp
   WHERE sp.IDSPORTIF= s.IDSPORTIF);

UPDATE ARBITRER s
SET s.ARBITRER_SPORTS =
   (SELECT REF(sp)
   FROM sport sp
   WHERE sp.idsport= s.idsport);
```

```
1 row created.
SQL> UPDATE ARBITRER s
2 SET s.ARBITRER_SPORTIFS=
3 (SELECT REF(sp)
4 FROM sportif sp
5 WHERE sp.IDSPORTIF= s.IDSPORTIF);

32 rows updated.

SQL> UPDATE ARBITRER s
2 SET s.ARBITRER_SPORTS =
3 (SELECT REF(sp)
4 FROM sport sp
5 WHERE sp.idsport= s.idsport);

32 rows updated.

SQL> __
```

## Partie V : Langage d'interrogation de données

1. Quels sont les sportifs (identifiant, nom et prénom) qui ont un âge entre 20 et 30 ans ?

SELECT idsportif, nom, prenom
FROM sportif
WHERE age BETWEEN 20 AND 30;

```
QL> SELECT idsportif, nom, prenom
2 FROM sportif
3 WHERE age BETWEEN 20 AND 30;
IDSPORTIF NOM
RENOM
          1 BOUTAHAR
Abderahim
          2 BOUROUBI
nis
          3 BOUZIDI
\me1
          5 AAKOUB
inda
          6 ABBAS
Sophia
          7 HADJ
ouhir
          8 HAMADI
lani
          9 ABDELMOUMEN
ladia
         10 ABAD
bdelhamid
```

```
TRENOM

145 LAAMARA
Maria

151 HENDI

Mouad

79 HANDI

Jaouad

IDSPORTIF NOM

PRENOM

110 ROULLADI

Aissa

29 ROUSSELI

Lamice

143 rows selected.

SQL>
```

1. Afficher la superficie moyenne des gymnases, pour chaque ville.

1. Quels sont les sportifs qui sont des conseillers ?

```
select DISTINCT deref(idsportifconseiller).nom,deref(idsportifconseiller).prenom from sportif;
```

```
SQL> select DISTINCT deref(idsportifconseiller).nom,deref(idsportifconseiller).prenom from sportif WHERE idsportifconseiller IS NOT NULL;
DEREF(IDSPORTIFCONSEILLER).NOM
DEREF(IDSPORTIFCONSEILLER).PRENOM
Bouzid
HADJ
Zouhir
RIADI
Walid
                                                                                          K
DEREF(IDSPORTIFCONSEILLER).NOM
DEREF(IDSPORTIFCONSEILLER).PRENOM
3OUTAHAR
Abderahim
ADIBOU
Ibrahim
ABDELMOUMEN
ladia
DEREF(IDSPORTIFCONSEILLER).NOM
DEREF(IDSPORTIFCONSEILLER).PRENOM
BABACI
ABDELOUAHAB
OUROUBI
DEREF(IDSPORTIFCONSEILLER).NOM
DEREF(IDSPORTIFCONSEILLER).PRENOM
HAMADI
Hani
ABBAS
Sophia
OUZIDI
DEREF(IDSPORTIFCONSEILLER).NOM
DEREF(IDSPORTIFCONSEILLER).PRENOM
AAKOUB
Linda
13 rows selected.
```

1. Quels entraîneurs n'entraînent que du hand ball ou du basket ball ?

```
select idsportifentraineur,deref(entrainer_sports).LIBELLE
from entrainer
WHERE deref(entrainer_sports).LIBELLE='Hand ball'
OR deref(entrainer_sports).LIBELLE='Basket ball';
```

```
IDSPORTIFENTRAINEUR DEREF(ENTRAINER_SPORTS).LIBELLE

151 Basket ball
149 Basket ball
4 Basket ball
2 Basket ball
1 Basket ball
1 Basket ball
151 Hand ball
7 Hand ball
3 Hand ball
2 Hand ball
1 Hand ball
1 Hand ball
2 Hand ball
3 Hand ball
6 Hand ball
```

## 1. Quels sont les sportifs les plus jeunes?

```
SELECT IDSPORTIF, NOM, PRENOM, AGE
FROM SPORTIF
WHERE AGE = (SELECT MIN(AGE) FROM SPORTIF);
```

```
SQL> SELECT IDSPORTIF, NOM, PRENOM, AGE
  2 FROM SPORTIF
3 WHERE AGE = (SELECT MIN(AGE) FROM SPORTIF);
 IDSPORTIF NOM
PRENOM
Linda
       13 ABBACI
Mohamed
        21 BABACI
Mourad
        17 ACHAIBOU
Rachid
        29 ROUSSELI
Lamice
        31 SETIHA
Moustapha
        41 DELHOUME
Elina
                                                             22
        50 KALI
Yasser
        52 DANDOUR
Rami
72 MARTALI
Bouzid
        92 HADJI
Jamel
       114 MICHALIKH
53 DEMMERA
Houcine
13 rows selected.
SQL>
```