

TD 1

Langage de Description de Données

Base de données
Semestre 3

1

```
1 CREATE TABLE resto
2 (
3     idR char (3),
4     nomR varchar2(20),
5     villeR varchar2(20),
6     dateOuv date,
7     dateFerm date
8 );
9
10 ALTER TABLE resto
11 ADD CONSTRAINT pk_resto PRIMARY KEY(idR);
12
13 CREATE TABLE vin
14 (
15     idV char(3),
16     nomV varchar2(20),
17     couleurV varchar2(10)
18 );
19
20 ALTER TABLE vin
21 ADD CONSTRAINT pk_vin PRIMARY KEY(idV);
22
23 CREATE TABLE plat
24 (
25     idP char(3),
26     nomP varchar2(20),
27     placeP varchar2(10),
28     idV char(3)
29 );
30
31 ALTER TABLE plat
32 ADD ( CONSTRAINT pk_plat PRIMARY KEY(idP),
33     CONSTRAINT fk_plat_idV FOREIGN KEY(idV) REFERENCES vin(idV)
34 );
35
36 CREATE TABLE propV(
37     idR char(3),
38     idV char(3),
39     prixV number(4,2)
40 );
41
```

```

42 ALTER TABLE propV
43 ADD ( CONSTRAINT pk_propV PRIMARY KEY(idR, idV),
44      CONSTRAINT fk_propV_idR FOREIGN KEY(idR) REFERENCES resto,
45      CONSTRAINT fk_propV_idV FOREIGN KEY(idV) REFERENCES vin
46 );

```

Listing 1 – Création de structures

2

```

1 CREATE TABLE propP AS SELECT * FROM olga.propP;
2
3 ALTER TABLE propP
4 ADD (CONSTRAINT pk_propP PRIMARY KEY(idR, idP),
5      CONSTRAINT fk_idR FOREIGN KEY(idR) REFERENCES resto(idR),
6      CONSTRAINT fk_idP FOREIGN KEY(idP) REFERENCES plat(idP)
7 );

```

Listing 2 – Recopie de table

3

```

1 ALTER TABLE propP
2 add (
3     CONSTRAINT chk_propP_spec CHECK(spec in ('0', 'N')),
4     CONSTRAINT chk_propP_prixP CHECK(prixP <= 50)
5 );
6
7 ALTER TABLE propP ADD CONSTRAINT chk_propP_prepa CHECK(spec = '0' OR prepa
8     <= 60);
9
10 ALTER TABLE resto ADD CONSTRAINT chk_resto_ouv CHECK(MONTHS_BETWEEN(dateOuv,
11     dateFerm >= 6));
12
13 ALTER TABLE propP MODIFY spec DEFAULT 'N';

```

Listing 3 – Modification de table

4

```

1 ALTER TABLE plat MODIFY idV CONSTRAINT nn_idV NOT NULL;

```

Listing 4 – Contrainte

5

Pour voir les données : **select**

Pour voir la structure : **describe**

Pour voir les contraintes mise en place :

```

1 SET LONG 9000 --largeur colonne, afficher
2 SELECT constraint_name, constraint_type, search_condition
3 FROM user_constraint

```

```
4 WHERE table_name = '&nom_table'; --& = paramètre
```

Listing 5 – Visualiser les contraintes

6

```
1 SELECT *  
2 FROM &nom_table_a_consulter;
```

Listing 6 – Visualiser le contenu

7

```
1 ALTER TABLE propV ADD moyPrixV number(4,2); -- \o/
```

Listing 7 – Modifier la structure

8

```
1 ALTER TABLE propP --precedemment number(2) xx  
2 MODIFY prixP number(4,2)  
3 ADD CONSTRAINT chk_prop_spec CHECK (spec != '0' OR  
4     prixP between 10 AND 20 OR  
5     prepa > 60) ;
```

Listing 8 – Modifier la structure

9

```
1 CREATE TABLE platV12 AS SELECT * FROM plat WHERE idV='V12';
```

Listing 9 – Créer une table par un select

10

```
1 CREATE TABLE propV12 AS SELECT idR FROM propV WHERE idV='V12';
```

Listing 10 – Créer une table par un select

11

```
1 CREATE TABLE propVBis AS SELECT idV, idR, moyP, prixP, prixV  
2 FROM propV ;  
3 DROP TABLE propV;  
4 RENAME propVBis TO propV;  
5 ALTER TABLE propV  
6 ADD ( CONSTRAINT pk_propV PRIMARY KEY(idR, idV),  
7     CONSTRAINT fk_propV_idR FOREIGN KEY(idR) REFERENCED resto,  
8     CONSTRAINT fk_propV_idV FOREIGN KEY(idV) REFERENCES vin  
9 );
```

Listing 11 – Modifier l'ordre des colonnes