

TP1 BDA

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Introduction :

Dans ce TP nous allons revoir les manipulation de données ainsi que la création de table pour notre base de données.

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2) Création de la BD initiale

3) Commande :

```
SELECT NUMTYPELOC,TYPELOC,NOMLOC,TAILLE,CAPACITE,TARIF,TARIFSUP
FROM TYPE_LOCATION ;
```

Résultat :

NUMTYPELOC	TYPELOC	NOMLOC	TAILLE	CAPACITE	TARIF	TARIFSUP
1	BUNGALOW	Caribe Club	52	4	80.85	40.43
2	BUNGALOW	Caribe	52	4	67.28	33.64
3	BUNGALOW	Bahia	55	4	48	24
4	BUNGALOW	Oasis	35	4	41.43	20.71
5	BUNGALOW	Yucatan	55	4	41.42	20.71
6	BUNGALOW	Costal Azul	25	4	44.57	22.29
7	BUNGALOW	Eden	50	6	66	33
8	MOBIL-HOME	Paradise	23	4	21	10.5
9	MOBIL-HOME	Siesta	20	2	21	10.5
10	PARCELLE	Standard	70	2	29	14.5
11	PARCELLE	Premium	80	2	31	15.5
NUMTYPELOC	TYPELOC	NOMLOC	TAILLE	CAPACITE	TARIF	TARIFSUP
12	PARCELLE	Premium Plus	90	2	35	17.5

12 rows selected.

4)

Commande :

```
select OBJECT_NAME, CREATED from USER_OBJECTS where OBJECT_TYPE = 'TABLE';
```

Résultats :

```
OBJECT_NAME
-----
TYPE_LOCATION
LOCATION
CLIENT
LOUER
PARTICIPER
```

Commande :

```
select COLUMN_NAME, DATA_TYPE, DATA_LENGTH, DATA_PRECISION from  
USER_TAB_COLUMNS  
order by TABLE_NAME;
```

Résultat :

COLUMN_NAME	DATA_TYPE
NOM	VARCHAR2
NUMCLI	NUMBER
PRENOM	VARCHAR2
GENRE	CHAR
DATEN	DATE
PAYS	CHAR
NUMLOC	NUMBER
NUMERO	NUMBER
NUMTYPELOC	NUMBER
NUMLOC	NUMBER
NUMCLI	NUMBER

COLUMN_NAME	DATA_TYPE
DATEDEB	DATE
DATEFIN	DATE
NUMCLI	NUMBER
NUMCLIP	NUMBER
DATEDEB	DATE
NUMLOC	NUMBER
CAPACITE	NUMBER
TARIF	NUMBER
TAILLE	NUMBER
NOMLOC	VARCHAR2
TARIFSUP	NUMBER

COLUMN_NAME	DATA_TYPE
NUMTYPELOC	NUMBER
TYPELOC	VARCHAR2

24 rows selected.

Commande :

```
select TABLE_NAME, CONSTRAINT_NAME, CONSTRAINT_TYPE, SEARCH_CONDITION
from USER_CONSTRAINTS
order by TABLE_NAME;
```

Résultat :

TABLE_NAME	CONSTRAINT_NAME	C SEARCH_CONDITION
CLIENT	PK_CLIENT	P
CLIENT	CK_CLIENT_GENRE	C Genre IN ('H','F')
LOCATION	PK_LOCATION	P
LOCATION	FK_LOCATION_TYPE_LOCATION	R
LOUER	FK_LOUER_LOCATION	R
LOUER	CK_LOUER_DATEDEB	C DateDeb < DateFin
LOUER	PK_LOUER	P
LOUER	FK_LOUER_CLIENT	R
PARTICIPER	PK_PARTICIPER	P
PARTICIPER	FK_PARTICIPER_LOUER	R
PARTICIPER	FK_PARTICIPER_CLIENT	R
TABLE_NAME	CONSTRAINT_NAME	C SEARCH_CONDITION
TYPE_LOCATION	PK_TYPE_LOCATION	P
TYPE_LOCATION	UK_TYPE_LOCATION	U
TYPE_LOCATION	CK_TYPE_LOCATION_TARIF	C Tarif >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_CAPACITE	C Capacite >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_TAILLE	C Taille >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_TARIFSUP	C TarifSup >= 0

17 rows selected.

```
select TABLE_NAME, CONSTRAINT_NAME,CONSTRAINT_TYPE, SEARCH_CONDITION
from USER_CONSTRAINTS
order by CONSTRAINT_TYPE;
```

TABLE_NAME	CONSTRAINT_NAME	C SEARCH_CONDITION
TYPE_LOCATION	CK_TYPE_LOCATION_TAILLE	C Taille >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_CAPACITE	C Capacite >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_TARIF	C Tarif >= 0
TYPE_LOCATION	CK_TYPE_LOCATION_TARIFSUP	C TarifSup >= 0
CLIENT	CK_CLIENT_GENRE	C Genre IN ('H','F')
LOUER	CK_LOUER_DATEDEB	C DateDeb < DateFin
LOUER	PK_LOUER	P
PARTICIPER	PK_PARTICIPER	P
CLIENT	PK_CLIENT	P
LOCATION	PK_LOCATION	P
TYPE_LOCATION	PK_TYPE_LOCATION	P
TABLE_NAME	CONSTRAINT_NAME	C SEARCH_CONDITION
LOCATION	FK_LOCATION_TYPE_LOCATION	R
LOUER	FK_LOUER_LOCATION	R
PARTICIPER	FK_PARTICIPER_CLIENT	R
LOUER	FK_LOUER_CLIENT	R
PARTICIPER	FK_PARTICIPER_LOUER	R
TYPE_LOCATION	UK_TYPE_LOCATION	U

17 rows selected.

```

classDiagram
    class TYPE_LOCATION {
        NumTypeLoc
        TypeLoc
        NomLoc
        Taille
        Capacite
        Tarif
        TarifSup
    }
    class LOCATION {
        NumLoc
        Numero
        NumTypeLoc
    }
    class CLIENT {
        NumCli
        Nom
        Prenom
        Genre
        DateN
        Pays
    }
    class LOUER {
        DateDeb
        DateFin
    }
    TYPE_LOCATION "1" -- "*" LOCATION
    LOCATION -- CLIENT
    CLIENT -- LOUER : Participer
    
```

3. SQL/LDD

1)

Commande :

```
create table CLIENT_FR(  
    NumCli number(5),  
    Nom varchar(30),  
    Prenom varchar(30),  
    Genre char(1),  
    DateN date,  
    CONSTRAINT PK_CLIENT_FR PRIMARY KEY (NumCli));
```

Résultat :

```
Table CLIENT_FR created.
```

2)

Commande :

```
ALTER TABLE CLIENT_FR  
ADD CHECK (Genre = 'H' or Genre = 'F');
```

Résultat :

```
Table CLIENT_FR altered.
```

3)

Commande :

```
INSERT INTO CLIENT_FR  
select DISTINCT CLIENT.NUMCLI, CLIENT.NOM, CLIENT.PRENOM, CLIENT.GENRE,  
CLIENT.DATEN  
from LOUER, CLIENT where  
    CLIENT.NUMCLI = LOUER.NUMCLI and PAYS ='FRA';
```

résultat :

```
300 rows inserted.
```


4) Commande :

```
select * from CLIENT_FR ;
```

Résultat :

42 Dufour	Clara	F 11-OCT-84
NUMCLI NOM	PRENOM	G DATEN
-----	-----	-----
43 Dufour	Jonathan	H 06-MAY-51
51 Schmitt	Noémie	F 02-OCT-09
57 Fabre	Anthony	H 31-AUG-89

300 rows selected.

5)

Commande :

```
DROP TABLE CLIENT_FR ;
```

Résultat :

```
Table CLIENT_FR dropped.
```

4. SQL/LMD

1)

Commande :

```
INSERT INTO CLIENT (NUMCLI,NOM,PRENOM,GENRE,DATEN,PAYS)  
values (2043,'JALADE','SAMUEL','H','04-OCT-98','FRA');
```

Résultat :

```
1 row inserted.
```

2)

Commande :

```
INSERT INTO LOUER(NUMCLI,NUMLOC,DATEDEB,DATEFIN)
        values (2043,1,'28-OCT-17','4-NOV-17');
```

Résultat :

```
1 row inserted.
```

3)

Commande :

```
ALTER TABLE CLIENT
ADD NBL NUMBER(5)
ADD NBJ NUMBER(5);
```

Résultat :

```
Table CLIENT altered.
```

Commande :

```
ALTER TABLE LOCATION
ADD NBJL NUMBER(5);
```

Résultat :

```
Table LOCATION altered.
```

4)

Commande :

```
UPDATE CLIENT SET NBL=( SELECT COUNT(NUMLOC) FROM LOUER , CLIENT
WHERE CLIENT.NUMCLI=LOUER.NUMCLI);
```

Résultat :

```
801 rows updated.
```

Commande :

```
UPDATE CLIENT
SET NBJ=(
SELECT
SUM(LOUER.DATEFIN-LOUER.DATEDEB)FROM LOUER
WHERE LOUER.NUMCLI=CLIENT.NUMCLI);
```

Résultat :

```
801 rows updated.
```

Commande :

```
UPDATE LOCATION
SET NBJL=(
SELECT
365-SUM(LOUER.DATEFIN-LOUER.DATEDEB)FROM LOUER
WHERE LOUER.NUMLOC=LOCATION.NUMLOC);
```

Résultat :

```
313 rows updated. |
```

Conclusion :

Ce TP nous permet de revoir la création des tables et réviser le langage SQL .