

Yann Thierry-Mieg

Adapted from an original subject by [Christian Soutou](#) (dpt GTR Toulouse (Blagnac))

TP DBMS

Foreword : These questions will be mailed to me at

Yann.Thierry-Mieg@lip6.fr

Object : [ECE DBMS] your name

Attach your files as zip or tgz format. (no rar plz, no exe)

I. Table creation

Using your favourite text editor, look at the file <http://y.mieg.free.fr/ECE-DBMS/creatab.sql> that contains sql instructions to create a few tables.

The structure of your tables should be the following (foreign keys are in italics):

```
SEGMENT(N_SEGMENT, NOM_SEGMENT)
SALLE (N_SALLE, NOM_S ,NB_POSTE ,N_SEGMENT)
POSTE(N_POSTE, NOM_P, N_SEGMENT, AD TYPE_P, N_SALLE)
LOGICIEL(N_LOG, NOM_L ,DATE_ACH ,VERSION TYPE_L)
INSTALLER(N_POSTE N_LOG , DATE_INS)
TYPE(TYPE_LP,NOM_TYPE)
```

The column types are the following (pretend this is in English!):

Nom de l'attribut	Explication du contenu	Description
N_SEGMENT	3 premiers groupes IP (ex : ' 130.120.80')	VARCHAR (10)
NOM_SEGMENT	nom attribué au segment	VARCHAR (20)
N_SALLE	numéro la salle (ex : 's01', 's02'...)	VARCHAR (7)
NOM_S	nom de la salle	VARCHAR (20)
NB_POSTE	nombre de postes de travail dans la salle	NUMBER (3)
N_POSTE	code interne associé au poste (ex : 'p1')	VARCHAR (7)
NOM_P	nom (ou alias) donné au poste	VARCHAR (20)
AD	dernier groupe de chiffre ip	VARCHAR (2)
TYPE_P	type du poste (ex : 'UNIX', 'TX',...)	VARCHAR (6)
DATE_INS	date d'installation du logiciel sur le poste	DATE
N_LOG	date d'achat du logiciel	VARCHAR (5)
NOM_L	numéro interne du logiciel	VARCHAR (20)
DATE_ACH	nom du logiciel	DATE
VERSION	date d'achat du logiciel	VARCHAR (7)
TYPE_L	version du logiciel (ex : '8.0')	VARCHAR (6)
	type du logiciel (ex : 'UNIX', 'PCWS'...)	

1. Complete the file: add the table Poste. Think about table creation order, first create parent tables and then tables that reference them. Do not forget the PRIMARY KEY and FOREIGN KEY constraints. Note that each constraint has a name (i.e. pk_segment for the primary key constraint over table segment). The foreign keys n_salle and n_segment should have a not null constraint.

2. Add « drop » commands in the head of your file, so you can call the script twice in a row without errors occurring. Remember DROP order is opposite order of creation.

3. Introspection.

Use the DESC command to examine the schema of each of your tables. i.e. DESC INSTALLER ;

Check that they are empty using `select * from mytable.`

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II. Table modification

1. Examine the file « values.sql » (from <http://y.mieg.free.fr/ECE-DBMS>) and execute it to add data to your system.

2. Add the following columns using ALTER command :

in table SEGMENT

ETAGE de type NUMBER (2) : numéro de l'étage

NB_SALLE de type NUMBER (2) : nombre de salles

NB_POSTE de type NUMBER (2) : nombre de postes

In table LOGICIEL

NB_INSTALL de type NUMBER (2) : nombre d'installations

In table POSTE

NB_LOG de type NUMBER (2) : nombre de logiciels installés

3. Update the tables to insert appropriate information in these new columns. (use UPDATE with a correlated subquery)

4. Modify (using UPDATE) the column ETAGE (currently empty) of table SEGMENT to set a valid floor number (do an UPDATE for each segment, use WHERE to select which rows are updated).

Set floor 0 for segment 130.120.80, 1 for segment 130.120.81, 2 for segment 130.120.82.

5. Add (alter table) foreign key constraints to table “poste” and “logiciel” to reference table “type”.

SQL queries :

Do the queries numbered : 4, 5, 8, 9, and 16, 17, 18, and 19 from y.mieg.free.fr/ECE-DBMS/TP3.pdf