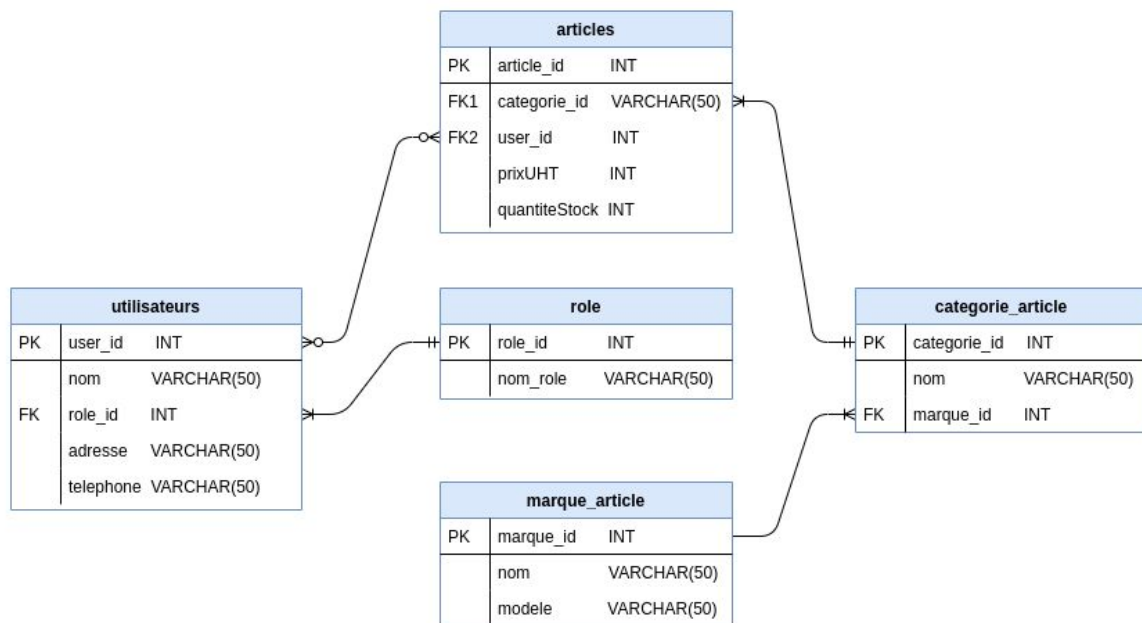


CRÉER UNE BASE DE DONNEES EN TENANT COMPTE DES ASSOCIATIONS MULTI TABLES

1. CRÉER UN DIAGRAMME DE LA BASE DE DONNÉES AVEC UML OU UNE REPRÉSENTATION DU FORMALISME ENTITÉ-RELATION



2. CRÉATION DE LA BASE DE DONNÉES JOJOFASHION

Capture + Résultat:

```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> CREATE DATABASE jojoFashion;
Query OK, 1 row affected (0.91 sec)

mysql>
  
```

Requête SQL:

```
CREATE DATABASE jojoFashion;
```

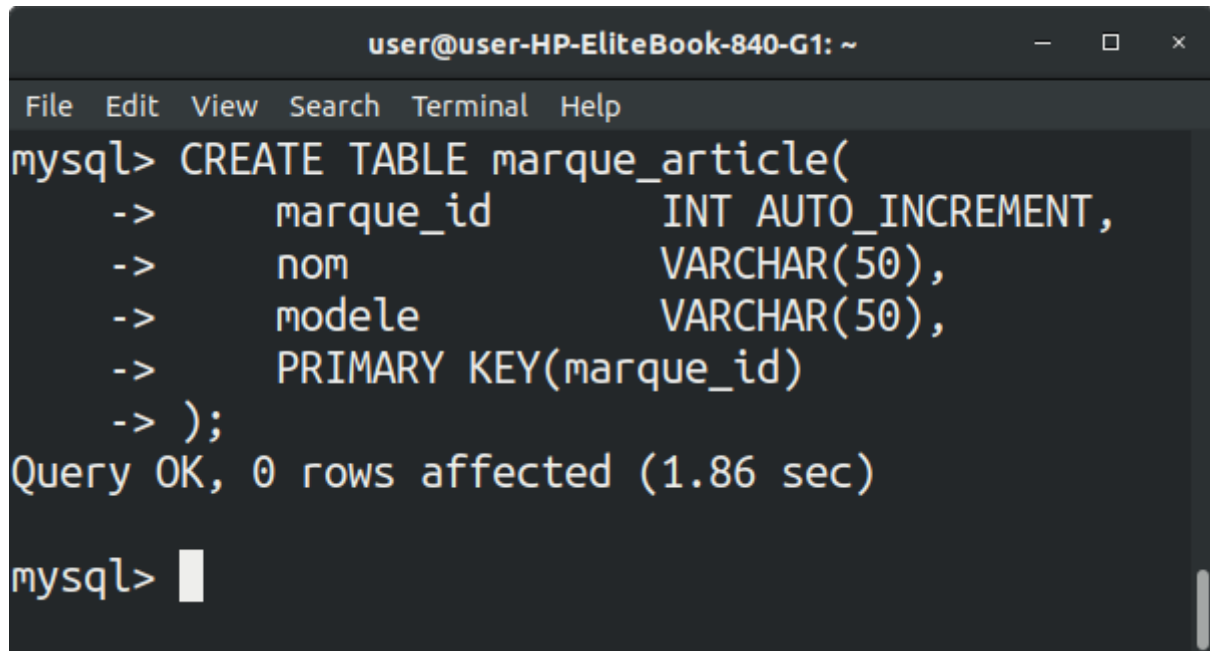
-- Permet de se placer dans la Base de données jojoFashion

```
USE jojoFashion;
```

3. CRÉATION DES TABLES

-- Création de la table marque_article

Capture + Résultat:

A screenshot of a terminal window titled 'user@user-HP-EliteBook-840-G1: ~'. The terminal shows a MySQL command prompt where the user has entered the command to create a table named 'marque_article'. The command is: 'CREATE TABLE marque_article(marque_id INT AUTO_INCREMENT, nom VARCHAR(50), modele VARCHAR(50), PRIMARY KEY(marque_id));'. The terminal output shows 'Query OK, 0 rows affected (1.86 sec)' and the prompt returns to 'mysql>'.

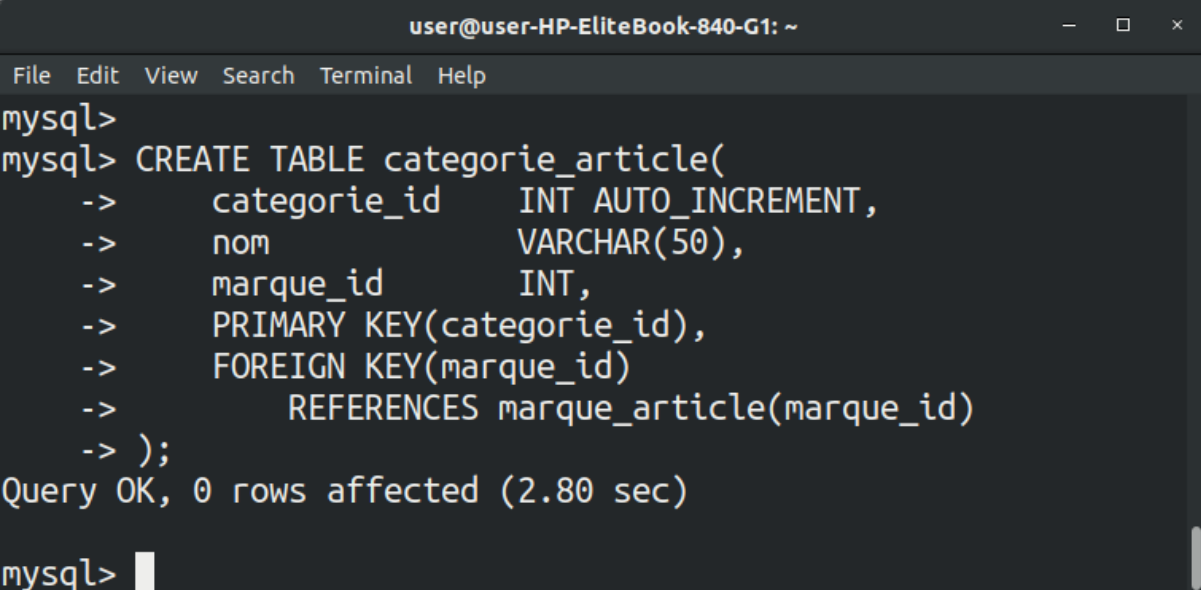
```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql> CREATE TABLE marque_article(  
->     marque_id      INT AUTO_INCREMENT,  
->     nom             VARCHAR(50),  
->     modele          VARCHAR(50),  
->     PRIMARY KEY(marque_id)  
-> );  
Query OK, 0 rows affected (1.86 sec)  
  
mysql> 
```

Requête SQL :

```
CREATE TABLE marque_article(  
    marque_id      INT AUTO_INCREMENT,  
    nom            VARCHAR(50),  
    modele         VARCHAR(50),  
    PRIMARY KEY(marque_id)  
);
```

-- Création de la table categorie_article

Capture + Résultat:

A screenshot of a terminal window titled 'user@user-HP-EliteBook-840-G1: ~'. The terminal shows a MySQL command prompt 'mysql>' followed by the command to create a table: 'CREATE TABLE categorie_article('). The command is entered in several lines: 'categorie_id INT AUTO_INCREMENT,', 'nom VARCHAR(50),', 'marque_id INT,', 'PRIMARY KEY(categorie_id),', 'FOREIGN KEY(marque_id)', 'REFERENCES marque_article(marque_id)', and finally ');'. The terminal then displays the message 'Query OK, 0 rows affected (2.80 sec)' and returns to the 'mysql>' prompt.

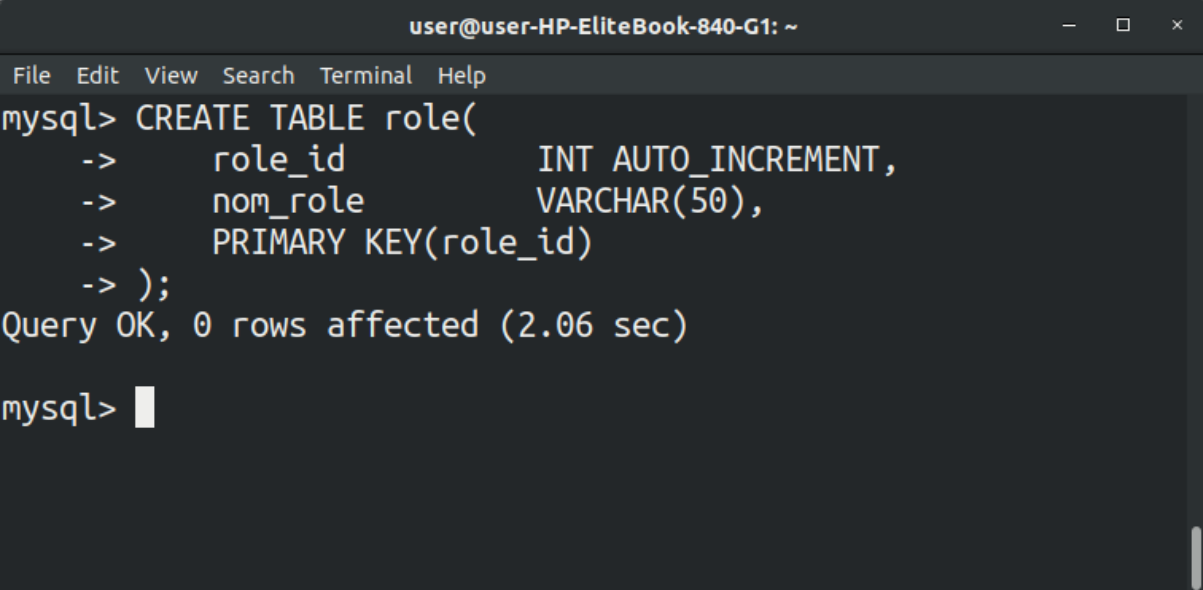
```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql>  
mysql> CREATE TABLE categorie_article(  
->     categorie_id    INT AUTO_INCREMENT,  
->     nom             VARCHAR(50),  
->     marque_id       INT,  
->     PRIMARY KEY(categorie_id),  
->     FOREIGN KEY(marque_id)  
->         REFERENCES marque_article(marque_id)  
-> );  
Query OK, 0 rows affected (2.80 sec)  
  
mysql> 
```

Requête SQL:

```
CREATE TABLE categorie_article(  
    categorie_id    INT AUTO_INCREMENT,  
    nom            VARCHAR(50),  
    marque_id      INT,  
    PRIMARY KEY(categorie_id),  
    FOREIGN KEY(marque_id)  
        REFERENCES marque_article(marque_id)  
);
```

-- Création de la table role

Capture + Résultat :

A screenshot of a terminal window titled 'user@user-HP-EliteBook-840-G1: ~'. The terminal shows a MySQL prompt 'mysql>' followed by the command 'CREATE TABLE role(' with line continuations '->' for 'role_id INT AUTO_INCREMENT,', 'nom_role VARCHAR(50),', and 'PRIMARY KEY(role_id)'. The command ends with ');'. The output shows 'Query OK, 0 rows affected (2.06 sec)' followed by another 'mysql>' prompt with a cursor.

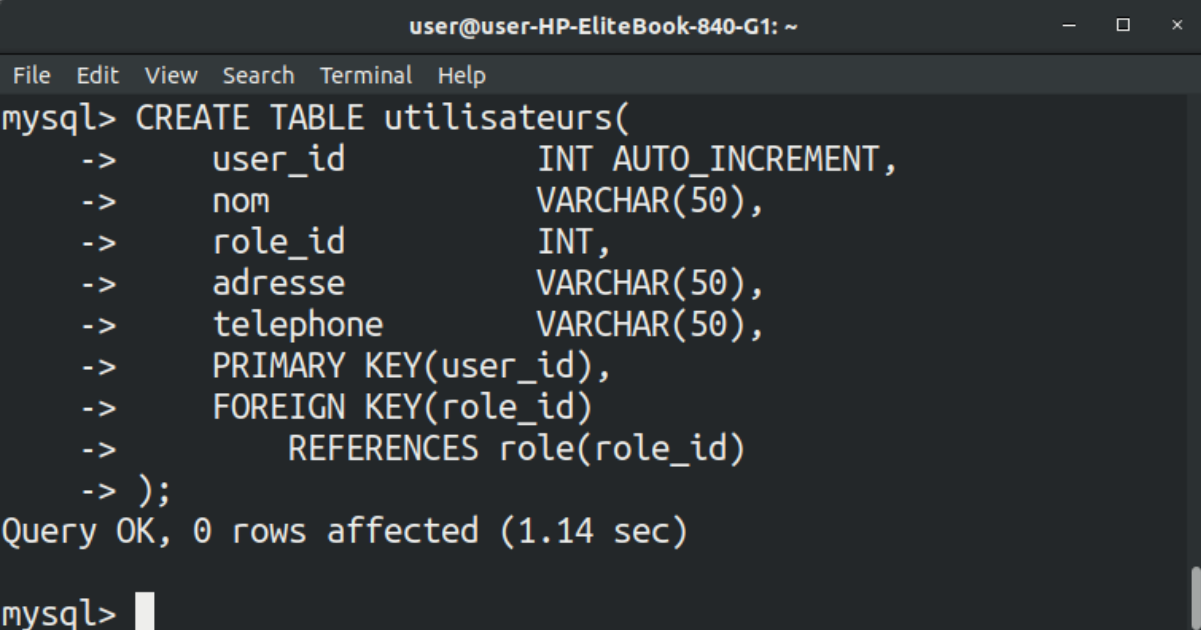
```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql> CREATE TABLE role(  
->     role_id          INT AUTO_INCREMENT,  
->     nom_role         VARCHAR(50),  
->     PRIMARY KEY(role_id)  
-> );  
Query OK, 0 rows affected (2.06 sec)  
  
mysql> █
```

Requête SQL :

```
CREATE TABLE role(  
    role_id          INT AUTO_INCREMENT,  
    nom_role         VARCHAR(50),  
    PRIMARY KEY(role_id)  
);
```

-- Création de la table utilisateurs

Capture + Résultat:



The screenshot shows a terminal window titled 'user@user-HP-EliteBook-840-G1: ~'. The terminal has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The MySQL command prompt 'mysql>' is followed by the SQL command to create the 'utilisateurs' table. The command is entered line by line, with each line starting with a prompt '->'. The command defines columns: 'user_id' (INT AUTO_INCREMENT), 'nom' (VARCHAR(50)), 'role_id' (INT), 'adresse' (VARCHAR(50)), and 'telephone' (VARCHAR(50)). It also sets a primary key on 'user_id' and a foreign key on 'role_id' that references the 'role' table's 'role_id' column. After the command is executed, the terminal shows 'Query OK, 0 rows affected (1.14 sec)' and the prompt returns to 'mysql>'.

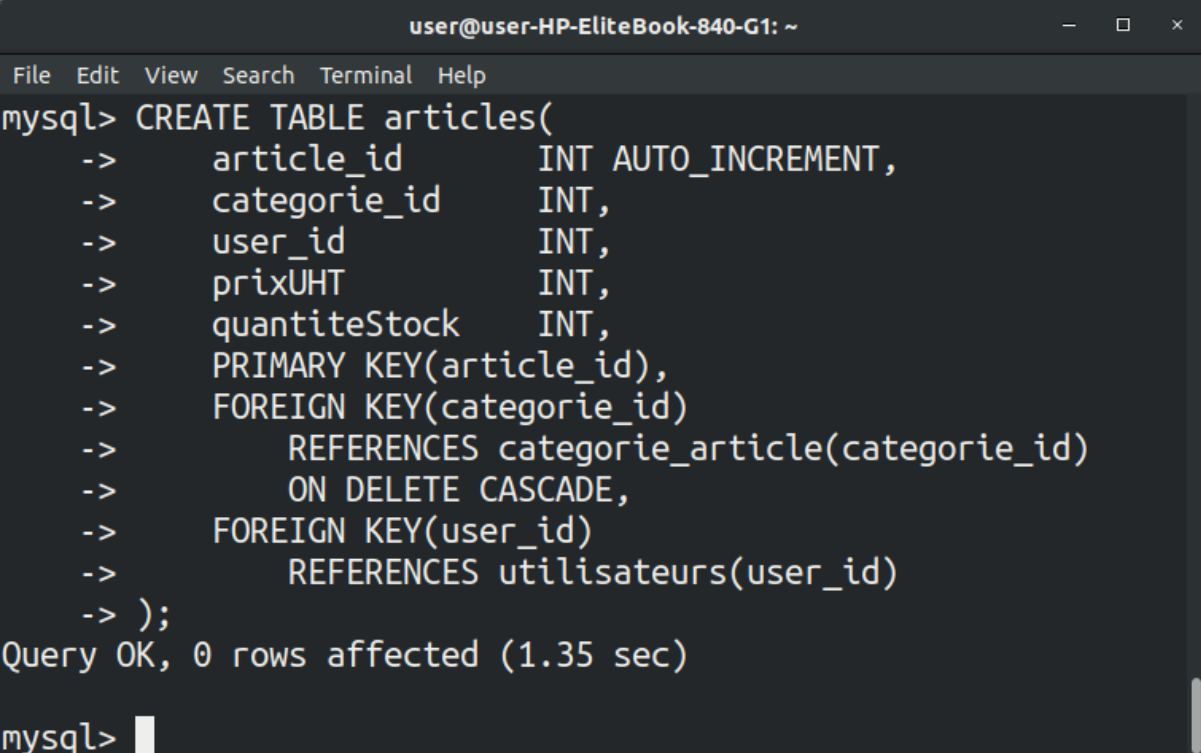
```
mysql> CREATE TABLE utilisateurs(  
->     user_id          INT AUTO_INCREMENT,  
->     nom              VARCHAR(50),  
->     role_id          INT,  
->     adresse          VARCHAR(50),  
->     telephone        VARCHAR(50),  
->     PRIMARY KEY(user_id),  
->     FOREIGN KEY(role_id)  
->         REFERENCES role(role_id)  
-> );  
Query OK, 0 rows affected (1.14 sec)  
  
mysql> 
```

Requête SQL :

```
CREATE TABLE utilisateurs(  
    user_id          INT AUTO_INCREMENT,  
    nom              VARCHAR(50),  
    role_id          INT,  
    adresse          VARCHAR(50),  
    telephone        VARCHAR(50),  
    PRIMARY KEY(user_id),  
    FOREIGN KEY(role_id)  
        REFERENCES role(role_id)  
);
```

-- Création de la table articles

Capture + Résultat:



```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql> CREATE TABLE articles(  
->     article_id      INT AUTO_INCREMENT,  
->     categorie_id    INT,  
->     user_id         INT,  
->     prixUHT         INT,  
->     quantiteStock   INT,  
->     PRIMARY KEY(article_id),  
->     FOREIGN KEY(categorie_id)  
->         REFERENCES categorie_article(categorie_id)  
->         ON DELETE CASCADE,  
->     FOREIGN KEY(user_id)  
->         REFERENCES utilisateurs(user_id)  
-> );  
Query OK, 0 rows affected (1.35 sec)  
mysql> 
```

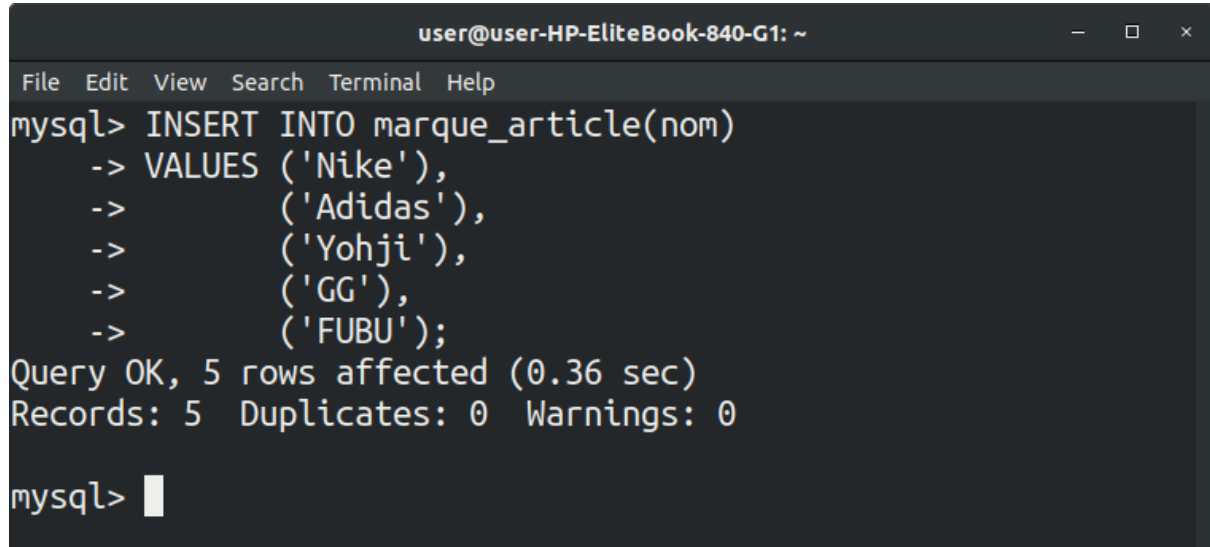
Requête SQL :

```
CREATE TABLE articles(  
    article_id      INT AUTO_INCREMENT,  
    categorie_id    INT,  
    user_id         INT,  
    prixUHT         INT,  
    quantiteStock   INT,  
    PRIMARY KEY(article_id),  
    FOREIGN KEY(categorie_id)  
        REFERENCES categorie_article(categorie_id)  
        ON DELETE CASCADE,  
    FOREIGN KEY(user_id)  
        REFERENCES utilisateurs(user_id)  
);
```

4. INSERTION DES ENREGISTREMENTS DANS LES TABLES

-- Insertion des enregistrements dans la table marque_article

Capture + Résultat :



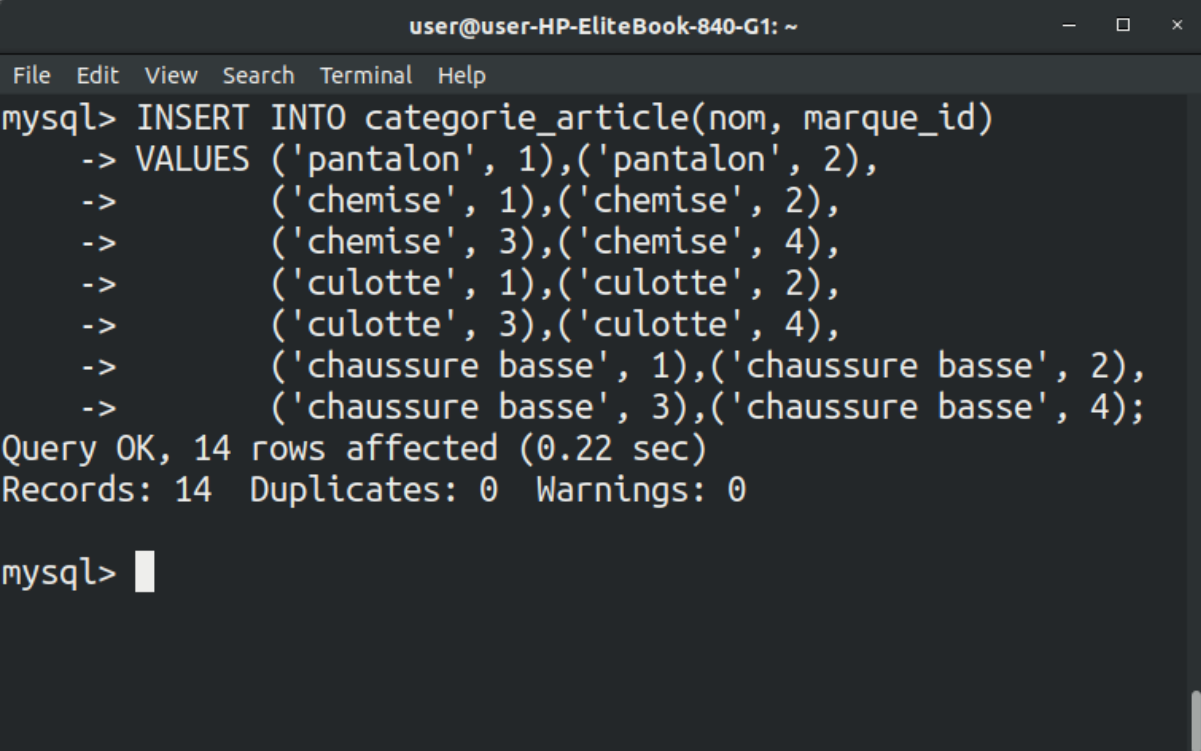
```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql> INSERT INTO marque_article(nom)  
-> VALUES ('Nike'),  
->          ('Adidas'),  
->          ('Yohji'),  
->          ('GG'),  
->          ('FUBU');  
Query OK, 5 rows affected (0.36 sec)  
Records: 5  Duplicates: 0  Warnings: 0  
  
mysql> █
```

Requête SQL :

```
INSERT INTO marque_article(nom)  
VALUES ('Nike'),  
       ('Adidas'),  
       ('Yohji'),  
       ('GG'),  
       ('FUBU');
```

-- Insertion des enregistrements dans la table catégorie_article

Capture + Résultat :



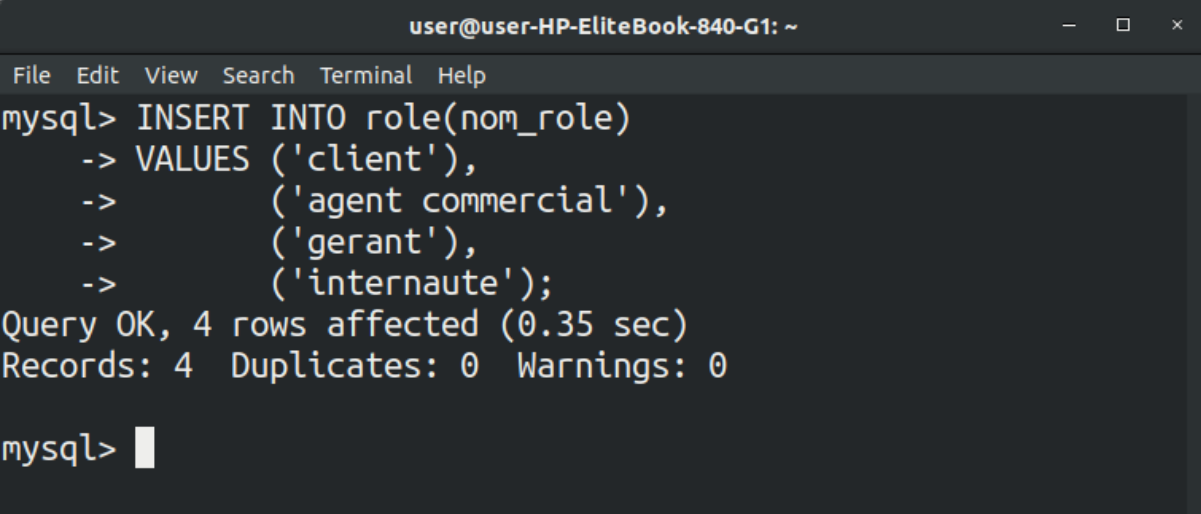
```
user@user-HP-EliteBook-840-G1: ~  
File Edit View Search Terminal Help  
mysql> INSERT INTO categorie_article(nom, marque_id)  
-> VALUES ('pantalon', 1),('pantalon', 2),  
->      ('chemise', 1),('chemise', 2),  
->      ('chemise', 3),('chemise', 4),  
->      ('culotte', 1),('culotte', 2),  
->      ('culotte', 3),('culotte', 4),  
->      ('chaussure basse', 1),('chaussure basse', 2),  
->      ('chaussure basse', 3),('chaussure basse', 4);  
Query OK, 14 rows affected (0.22 sec)  
Records: 14  Duplicates: 0  Warnings: 0  
  
mysql> █
```

Requête SQL :

```
INSERT INTO categorie_article(nom, marque_id)  
VALUES ('pantalon', 1),('pantalon', 2),  
      ('chemise', 1),('chemise', 2),  
      ('chemise', 3),('chemise', 4),  
      ('culotte', 1),('culotte', 2),  
      ('culotte', 3),('culotte', 4),  
      ('chaussure basse', 1),('chaussure basse', 2),  
      ('chaussure basse', 3),('chaussure basse', 4);
```


-- Insertion des enregistrements dans la table role

Capture + Résultat :

A screenshot of a terminal window titled "user@user-HP-EliteBook-840-G1: ~". The terminal shows a MySQL command being executed:

```
mysql> INSERT INTO role(nom_role)
-> VALUES ('client'),
->         ('agent commercial'),
->         ('gerant'),
->         ('internaute');
Query OK, 4 rows affected (0.35 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> 
```

Requête SQL:

```
INSERT INTO role(nom_role)
VALUES ('client'),
       ('agent commercial'),
       ('gerant'),
       ('internaute');
```

-- Insertion des enregistrements dans la table utilisateurs

Capture + Résultat :

```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> INSERT INTO utilisateurs(role_id, nom, adresse, telephone)
-> VALUES (1, 'Joseph', '12 Av Lika', '08200000000'),
->          (4, 'Ruth', '32 Av De la Justice', '09900000000'),
->          (3, 'Laurène', '12 Av Des Forces armées', '0828765433'),
->          (2, 'Stanislas', '86 Av Tshuapa', '08277777777'),
->          (1, 'Jonathan', '11 Av Rwakadindi', '08255555555'),
->          (1, 'Ben', '123 Av Des Ecuries', '0824444444444'),
->          (1, 'Joséphine', '11 Av Des Oliviers', '0823333333333'),
->          (2, 'Murdoch', '12 Av Luambo Makiadi', '08288888888'),
->          (2, 'Claude', '80 Av De la Révolution', '08212121212'),
->          (1, 'Axel', '998 Av Mbomu', '08275432900'),
->          (1, 'Dieudonné', '12 Av Righini', '08211111111'),
->          (1, 'Russell', '09 Av De la Joie', '08123349802');
Query OK, 12 rows affected (0.34 sec)
Records: 12  Duplicates: 0  Warnings: 0

mysql>

```

Requête SQL :

```

INSERT INTO utilisateurs(role_id, nom, adresse, telephone)
VALUES (1, 'Joseph', '12 Av Lika', '08200000000'),
      (4, 'Ruth', '32 Av De la Justice', '09900000000'),
      (3, 'Laurène', '12 Av Des Forces armées', '0828765433'),
      (2, 'Stanislas', '86 Av Tshuapa', '08277777777'),
      (1, 'Jonathan', '11 Av Rwakadindi', '08255555555'),
      (1, 'Ben', '123 Av Des Ecuries', '0824444444444'),
      (1, 'Joséphine', '11 Av Des Oliviers', '0823333333333'),
      (2, 'Murdoch', '12 Av Luambo Makiadi', '08288888888'),
      (2, 'Claude', '80 Av De la Révolution', '08212121212'),
      (1, 'Axel', '998 Av Mbomu', '08275432900'),
      (1, 'Dieudonné', '12 Av Righini', '08211111111'),
      (1, 'Russell', '09 Av De la Joie', '08123349802');

```

-- Insertion multiple des enregistrements dans la table articles

Capture + Résultat :

```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql>
mysql> INSERT INTO articles(categorie_id, user_id, prixUHT, quantiteStock)
-> VALUES (1, 1, 100, 500),
->          (1, 2, 200, 100),
->          (1, 2, 400, 100),
->          (2, 3, 500, 800),
->          (2, 1, 10, 900),
->          (5, 2, 120, 0),
->          (3, 1, 210, 200),
->          (3, 2, 220, 300),
->          (3, 1, 80, 0),
->          (1, 1, 120, 220),
->          (4, 3, 300, 100),
->          (4, 3, 10, 200),
->          (1, 4, 150, 0),
->          (4, 1, 170, 20);
Query OK, 14 rows affected (0.25 sec)
Records: 14  Duplicates: 0  Warnings: 0

mysql>

```

Requête SQL :


```

INSERT INTO articles(categorie_id, user_id, prixUHT,
quantiteStock)
VALUES (1, 1, 100, 500),
      (1, 2, 200, 100),
      (1, 2, 400, 100),
      (2, 3, 500, 800),
      (2, 1, 10, 900),
      (5, 2, 120, 0),
      (3, 1, 210, 200),
      (3, 2, 220, 300),
      (3, 1, 80, 0),
      (1, 1, 120, 220),
      (4, 3, 300, 100),
      (4, 3, 10, 200),
      (1, 4, 150, 0),
      (4, 1, 170, 20),
      (11, 8, 10, 500),
      (11, 7, 20, 100);

```

5. SUPPRESSION EN CASCADE DES ARTICLES FAISANT PARTIE DE LA CATÉGORIE '**pantalon**' PUISQU'IL A ÉTÉ DÉFINI LORS DE LA CRÉATION DE LA TABLE **articles** LA COMMANDE ON DELETE CASCADE

Capture + Résultat :



```

user@user-HP-EliteBook-840-G1: ~
mysql> DELETE FROM categorie_article
-> WHERE nom = 'pantalon';
Query OK, 2 rows affected (0.36 sec)

mysql> SELECT
->   a.article_id,
->   c.nom AS categorie
-> FROM articles AS a
-> INNER JOIN categorie_article AS c
->   ON c.categorie_id = a.categorie_id;
+-----+-----+
| article_id | categorie |
+-----+-----+
|          7 | chemise   |
|          8 | chemise   |
|         11 | chemise   |
|         12 | chemise   |
|         14 | chemise   |
|         15 | chaussure basse |
|         16 | chaussure basse |
+-----+-----+
7 rows in set (0.00 sec)

mysql>

```

La requête SELECT qui intervient juste après le DELETE (capture ci-haut) montre bien qu'il ne reste plus aucun article de catégorie pantalon. Il y a que chemise et chaussure basse.

Requête SQL :

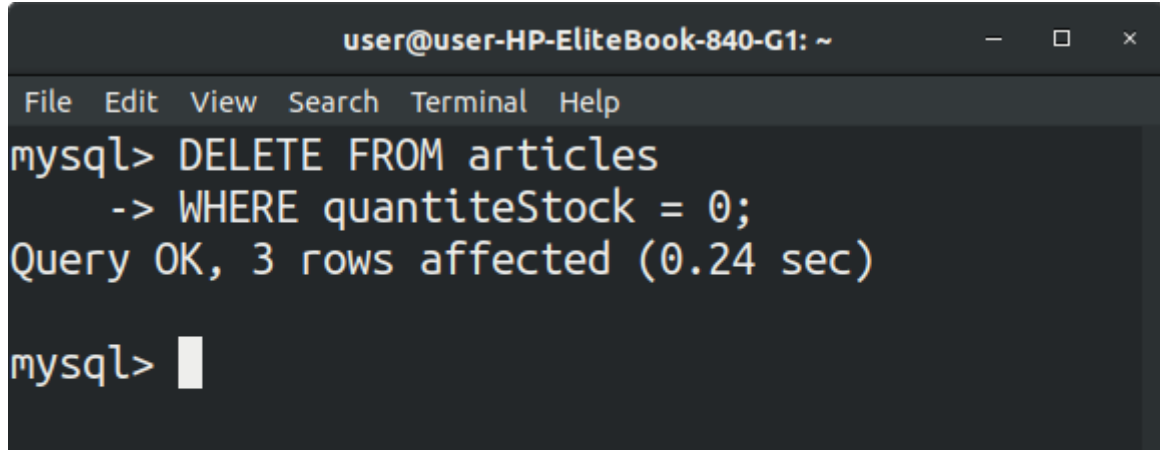
```

DELETE FROM categorie_article
WHERE nom = 'pantalon';

```

6. SUPPRESSION DES ENREGISTREMENTS (ARTICLES) DONT LA QUANTITÉ EN STOCK EST 0

Capture + Résultat:

A screenshot of a terminal window titled 'user@user-HP-EliteBook-840-G1: ~'. The terminal has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The command 'mysql> DELETE FROM articles -> WHERE quantiteStock = 0;' is entered, followed by the output 'Query OK, 3 rows affected (0.24 sec)'. The prompt 'mysql>' is shown again with a cursor.

```
user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> DELETE FROM articles
      -> WHERE quantiteStock = 0;
Query OK, 3 rows affected (0.24 sec)

mysql> █
```

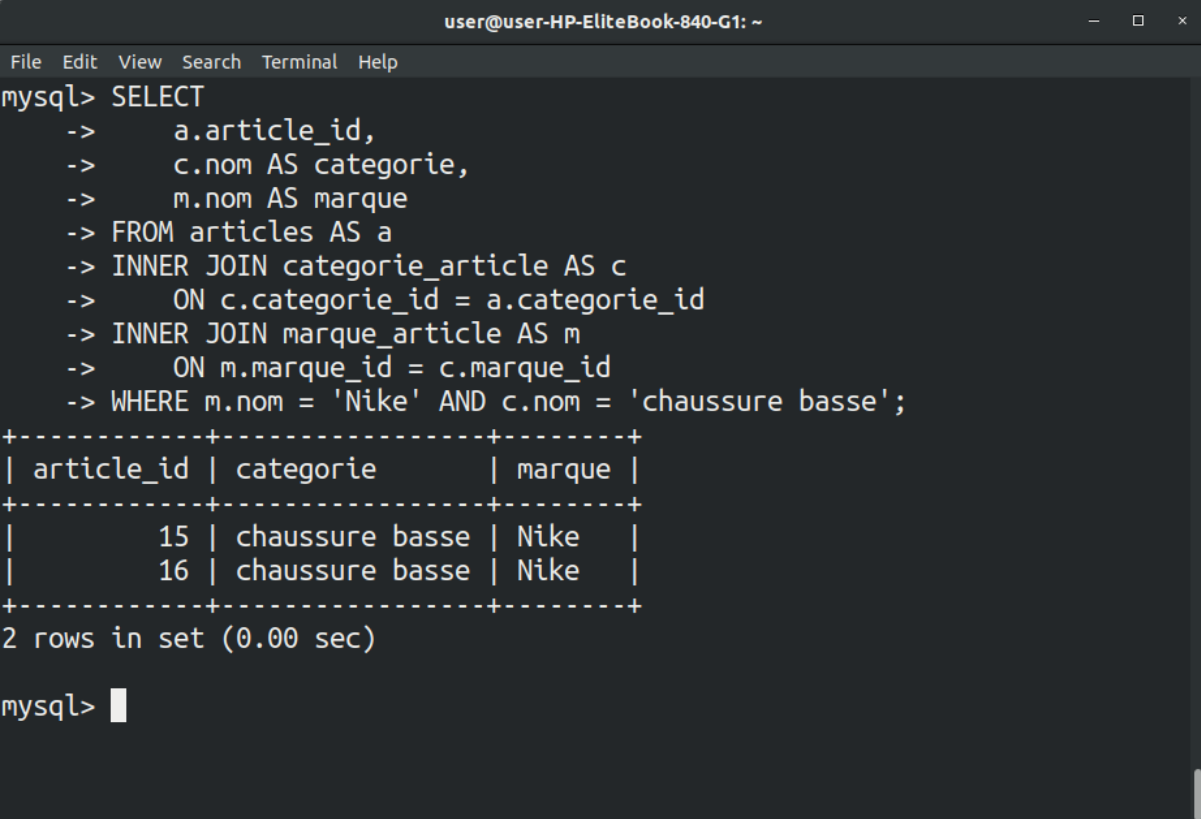
Dans notre cas, uniquement 3 enregistrements ont été supprimés

Requête SQL :

```
DELETE FROM articles
WHERE quantiteStock = 0;
```

7. LISTE DES ARTICLES DE MARQUE NIKE ET DE TYPE CHAUSSURES BASSES.

Capture + Résultat :



```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> SELECT
->     a.article_id,
->     c.nom AS categorie,
->     m.nom AS marque
-> FROM articles AS a
-> INNER JOIN categorie_article AS c
->     ON c.categorie_id = a.categorie_id
-> INNER JOIN marque_article AS m
->     ON m.marque_id = c.marque_id
-> WHERE m.nom = 'Nike' AND c.nom = 'chaussure basse';
+-----+-----+-----+
| article_id | categorie      | marque |
+-----+-----+-----+
|          15 | chaussure basse | Nike   |
|          16 | chaussure basse | Nike   |
+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>

```

Requête SQL :

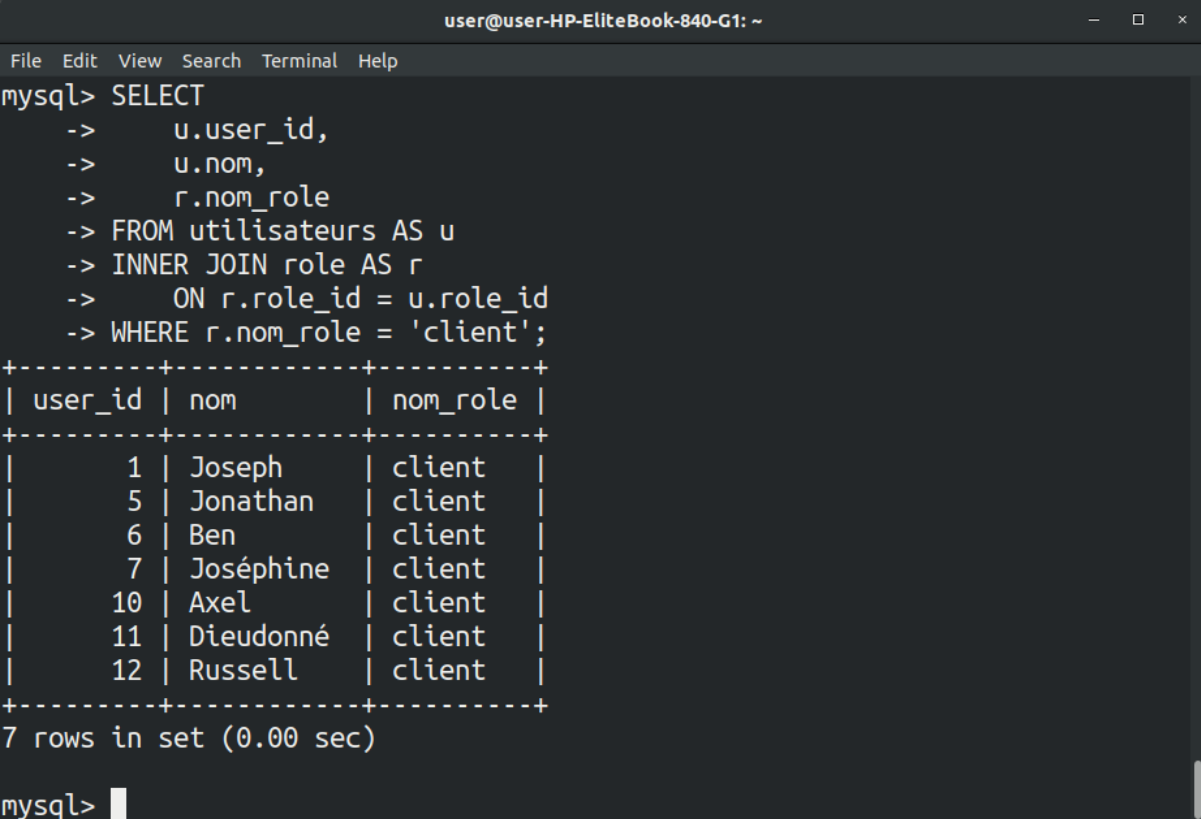
```

SELECT
    a.article_id,
    c.nom AS categorie,
    m.nom AS marque
FROM articles AS a
INNER JOIN categorie_article AS c
    ON c.categorie_id = a.categorie_id
INNER JOIN marque_article AS m
    ON m.marque_id = c.marque_id
WHERE m.nom = 'Nike' AND c.nom = 'chaussure basse';

```

8. LISTE DE CLIENTS SE TROUVANT DANS LA BASE DE DONNÉES

Capture + Résultat :



```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> SELECT
->     u.user_id,
->     u.nom,
->     r.nom_role
-> FROM utilisateurs AS u
-> INNER JOIN role AS r
->     ON r.role_id = u.role_id
-> WHERE r.nom_role = 'client';
+-----+-----+-----+
| user_id | nom      | nom_role |
+-----+-----+-----+
|      1 | Joseph   | client   |
|      5 | Jonathan | client   |
|      6 | Ben      | client   |
|      7 | Joséphine | client   |
|     10 | Axel     | client   |
|     11 | Dieudonné | client   |
|     12 | Russell  | client   |
+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>

```

Requête SQL :

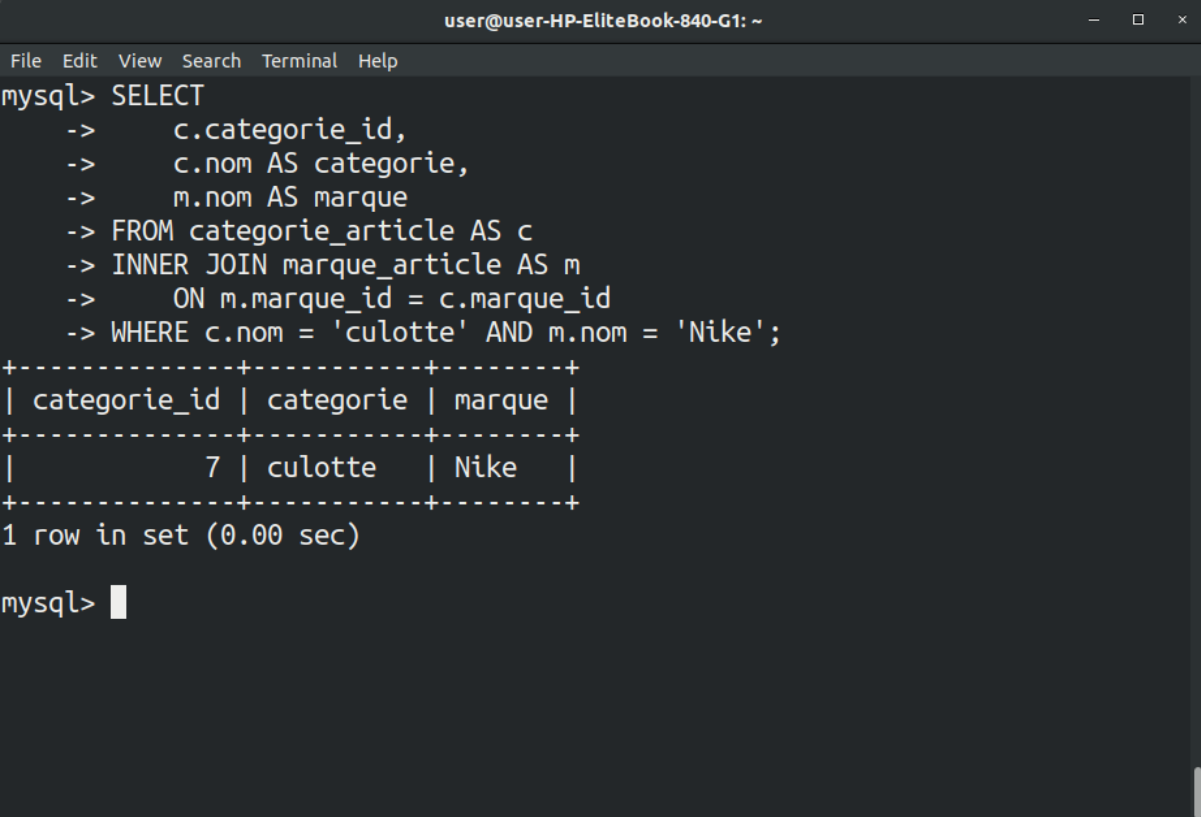
```

SELECT
    u.user_id,
    u.nom,
    r.nom_role
FROM utilisateurs AS u
INNER JOIN role AS r
    ON r.role_id = u.role_id
WHERE r.nom_role = 'client';

```

9. LISTE DE CULOTTES DE MARQUE NIKE

Capture + Résultat :



```

user@user-HP-EliteBook-840-G1: ~
File Edit View Search Terminal Help
mysql> SELECT
->     c.categorie_id,
->     c.nom AS categorie,
->     m.nom AS marque
-> FROM categorie_article AS c
-> INNER JOIN marque_article AS m
->     ON m.marque_id = c.marque_id
-> WHERE c.nom = 'culotte' AND m.nom = 'Nike';
+-----+-----+-----+
| categorie_id | categorie | marque |
+-----+-----+-----+
|           7 | culotte  | Nike   |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql>

```

Requête SQL :

```

SELECT
    c.categorie_id,
    c.nom AS categorie,
    m.nom AS marque
FROM categorie_article AS c
INNER JOIN marque_article AS m
    ON m.marque_id = c.marque_id
WHERE c.nom = 'culotte' AND m.nom = 'Nike';

```