

Sarah muhammad

Database lab

P13-6042

```
mysql> CREATE DATABASE southwind;
Query OK, 1 row affected (0.00 sec)

mysql> DROP DATABASE southwind;
Query OK, 0 rows affected (0.40 sec)

mysql> CREATE DATABASE IF NOT EXISTS southwind;
Query OK, 1 row affected (0.00 sec)

mysql> DROP DATABASE IF EXISTS southwind;
Query OK, 0 rows affected (0.00 sec)

mysql>
```

```
mysql> CREATE DATABASE IF NOT EXISTS southwind;
Query OK, 1 row affected (0.01 sec)

mysql> SHOW CREATE DATABASE IF NOT EXISTS southwind \G
***** 1. row *****
      Database: southwind
Create Database: CREATE DATABASE /*!32312 IF NOT EXISTS*/ 'southwind' /*!40100 D
EFAULT CHARACTER SET latin1 */
1 row in set (0.04 sec)
```

```
mysql> DROP DATABASE IF EXISTS southwind;
Query OK, 0 rows affected (0.08 sec)

mysql> CREATE DATABASE southwind;
Query OK, 1 row affected (0.00 sec)

mysql> show DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| db_lab |
| lab_task |
| mysql |
| southwind |
+-----+
5 rows in set (0.09 sec)
```

```
mysql> USE southwind;
Database changed
mysql> SELECT DATABASE();
+-----+
| DATABASE() |
+-----+
| southwind  |
+-----+
1 row in set (0.00 sec)

mysql>
```

```
mysql> CREATE TABLE IF NOT EXISTS products (
  productID INT UNSIGNED NOT NULL AUTO_INCREMENT,
  productCode CHAR(3) NOT NULL DEFAULT '',
  name VARCHAR(30) NOT NULL DEFAULT '',
  quantity INT UNSIGNED NOT NULL DEFAULT 0,
  price DECIMAL(7,2) NOT NULL DEFAULT 99999.99,
  PRIMARY KEY (productID)
);
Query OK, 0 rows affected (1.56 sec)
```

```
mysql> describe products;
+-----+-----+-----+-----+-----+-----+
| Field      | Type                | Null | Key | Default | Extra           |
+-----+-----+-----+-----+-----+-----+
| productID  | int(10) unsigned    | NO   | PRI | NULL     | auto_increment |
| productCode | char(3)              | NO   |     |          |                 |
| name       | varchar(30)         | NO   |     |          |                 |
| quantity   | int(10) unsigned    | NO   |     | 0        |                 |
| price      | decimal(7,2)        | NO   |     | 99999.99 |                 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.17 sec)
```

```
mysql> SHOW CREATE TABLE products \G;
***** 1. row *****
Table: products
Create Table: CREATE TABLE `products` (
  `productID` int(10) unsigned NOT NULL AUTO_INCREMENT,
  `productCode` char(3) NOT NULL DEFAULT '',
  `name` varchar(30) NOT NULL DEFAULT '',
  `quantity` int(10) unsigned NOT NULL DEFAULT '0',
  `price` decimal(7,2) NOT NULL DEFAULT '99999.99',
  PRIMARY KEY (`productID`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1
1 row in set (0.06 sec)
```

ERROR:
No query specified

```
mysql> SHOW CREATE TABLE products \G
***** 1. row *****
Table: products
Create Table: CREATE TABLE `products` (
  `productID` int(10) unsigned NOT NULL AUTO_INCREMENT,
  `productCode` char(3) NOT NULL DEFAULT '',
  `name` varchar(30) NOT NULL DEFAULT '',
  `quantity` int(10) unsigned NOT NULL DEFAULT '0',
  `price` decimal(7,2) NOT NULL DEFAULT '99999.99',
  PRIMARY KEY (`productID`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1
1 row in set (0.00 sec)

mysql>
```

```

mysql> SHOW CREATE TABLE products \G
***** 1. row *****
Table: products
create Table: CREATE TABLE `products` (
  `productID` int(10) unsigned NOT NULL AUTO_INCREMENT,
  `productCode` char(3) NOT NULL DEFAULT '',
  `name` varchar(30) NOT NULL DEFAULT '',
  `quantity` int(10) unsigned NOT NULL DEFAULT '0',
  `price` decimal(7,2) NOT NULL DEFAULT '99999.99',
  PRIMARY KEY (`productID`)
) ENGINE=InnoDB DEFAULT CHARSET=latin1
row in set (0.00 sec)

mysql> INSERT INTO products VALUES (1001, 'PEN', 'Pen Red', 5000, 1.23);
Query OK, 1 row affected (0.09 sec)

mysql> INSERT INTO products VALUES
-> (NULL, 'PEN', 'Pen Blue', 8000, 1.25),
-> (NULL, 'PEN', 'Pen Black', 2000, 1.25);
Query OK, 2 rows affected (0.12 sec)
Inregistrements: 2 Doublons: 0 Avertissements: 0

mysql> INSERT INTO products (productCode, name, quantity, price) VALUES
-> ('PEC', 'Pencil 2B', 10000, 0.48),
-> ('PEC', 'Pencil 2H', 8000, 0.49);
Query OK, 2 rows affected (0.11 sec)
Inregistrements: 2 Doublons: 0 Avertissements: 0

mysql> INSERT INTO products (productCode, name) VALUES ('PEC', 'Pencil HB');
Query OK, 1 row affected (0.06 sec)

```

```

mysql> INSERT INTO products values (NULL, NULL, NULL, NULL, NULL);
ERROR 1048 (23000): Le champ 'productCode' ne peut être vide (null)
mysql> select * from products;
+-----+-----+-----+-----+-----+
| productID | productCode | name | quantity | price |
+-----+-----+-----+-----+-----+
| 1001 | PEN | Pen Red | 5000 | 1.23 |
| 1002 | PEN | Pen Blue | 8000 | 1.25 |
| 1003 | PEN | Pen Black | 2000 | 1.25 |
| 1004 | PEC | Pencil 2B | 10000 | 0.48 |
| 1005 | PEC | Pencil 2H | 8000 | 0.49 |
| 1006 | PEC | Pencil HB | 0 | 99999.99 |
+-----+-----+-----+-----+-----+
5 rows in set (0.06 sec)

mysql> DELETE FROM products WHERE productID = 1006;
Query OK, 1 row affected (0.13 sec)

mysql> DELETE FROM products SELECT name, price FROM products;productID = 1006;
ERROR 1064 (42000): Erreur de syntaxe près de 'SELECT name, price FROM products' à la ligne 1
ERROR 1064 (42000): Erreur de syntaxe près de 'productID = 1006' à la ligne 1
mysql> select name ,price from products;
+-----+-----+
| name | price |
+-----+-----+
| Pen Red | 1.23 |
| Pen Blue | 1.25 |
| Pen Black | 1.25 |
| Pencil 2B | 0.48 |
| Pencil 2H | 0.49 |
+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from products;
+-----+-----+-----+-----+-----+
| productID | productCode | name | quantity | price |
+-----+-----+-----+-----+-----+
| 1001 | PEN | Pen Red | 5000 | 1.23 |
| 1002 | PEN | Pen Blue | 8000 | 1.25 |
| 1003 | PEN | Pen Black | 2000 | 1.25 |
| 1004 | PEC | Pencil 2B | 10000 | 0.48 |
| 1005 | PEC | Pencil 2H | 8000 | 0.49 |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

```

```
mysql> select 1+1;
+-----+
| 1+1 |
+-----+
|    2 |
+-----+
1 row in set (0.06 sec)

mysql>
```

```
mysql> select * from products;
+-----+-----+-----+-----+-----+
| productID | productCode | name      | quantity | price |
+-----+-----+-----+-----+-----+
| 1004      | PEC         | Pencil 2B | 10000    | 0.48  |
| 1005      | PEC         | Pencil 2H | 8000     | 0.49  |
| 1001      | PEN         | Pen Red   | 5000     | 1.23  |
| 1002      | PEN         | Pen Blue  | 8000     | 1.25  |
| 1003      | PEN         | Pen Black | 2000     | 1.25  |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from products group by productcode;
+-----+-----+-----+-----+-----+
| productID | productCode | name      | quantity | price |
+-----+-----+-----+-----+-----+
| 1004      | PEC         | Pencil 2B | 10000    | 0.48  |
| 1001      | PEN         | Pen Red   | 5000     | 1.23  |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select count(*) as 'count' from products;
+-----+
| count |
+-----+
|      5 |
+-----+
1 row in set (0.06 sec)

mysql> select productcode, count(*) from products group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de '*' from products group by productcode' à la ligne 1
mysql> select productcode, count(*) from products group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de '*' from products group by productcode' à la ligne 1
mysql> select productcode, count(*) from products group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de '*' from products group by productcode' à la ligne 1
mysql> select productcode, count(*) from products group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de '*' from products group by productcode' à la ligne 1
mysql> select productcode, count(*) from products group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de '*' from products group by productcode' à la ligne 1
mysql> select productcode, count(*) from products group by productcode;
+-----+-----+
| productcode | count(*) |
+-----+-----+
| PEC         | 2        |
| PEN         | 3        |
+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

```
mysql> select productcode ,count(*) as 'Count' from products group by productcode order by count desc;
Empty set (0.00 sec)

mysql>
```

```
mysql> select productcode ,count(*) as 'Count' from products group by productcode order by count desc;
Empty set (0.00 sec)
```

```
mysql> select productcode ,count(*) as 'Count' from products group by productcode order by count desc;
Empty set (0.00 sec)

mysql> select max(price), min(price), avg(price), std(price), sum(quantity);
ERROR 1064 (42222): Champ 'price' inconnu dans field list
mysql> select max(price), min(price), avg(price), std(price), sum(quantity) from products;
ERROR 1305 (42000): FUNCTION southwind.std does not exist
mysql> select max(price), min(price), avg(price), std(price), sum(quantity) from products;
+-----+-----+-----+-----+-----+
| max(price) | min(price) | avg(price) | std(price) | sum(quantity) |
+-----+-----+-----+-----+-----+
| NULL      | NULL      | NULL      | NULL      | NULL          |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select productcode, max(price) as 'highest price', min(price) as 'lowest price' from products;
+-----+-----+-----+
| productcode | highest price | lowest price |
+-----+-----+-----+
| NULL        | NULL          | NULL          |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```

mysql> select productcode,max(price) as 'highest price',min(price) as 'lowest price' from products;
+-----+-----+-----+
| productcode | highest price | lowest price |
+-----+-----+-----+
| NULL       | NULL         | NULL         |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select productcode,max(price),min(price), CAST(avg(price) as decimal(7,2)) as 'average', CAST(std(price) as decimal(7,2)) as 'stddev',sum(quantity)
-> group by productcode;
ERROR 1064 (42000): Erreur de syntaxe près de 'as 'average', CAST(std(price) as decimal(7,2)) as 'stddev',sum(quantity) from ' à la ligne 1
mysql> select productcode,max(price),min(price), CAST(avg(price) as decimal(7,2)) as 'average', CAST(std(pSELECT productCode, MAX(price), MIN(price),
-> CAST(AVG(price) AS DECIMAL(7,2)) AS 'Average',
-> CAST(STD(price) AS DECIMAL(7,2)) AS 'Std Dev',
-> SUM(quantity)
-> FROM products
-> GROUP BY productCode;
ERROR 1064 (42000): Erreur de syntaxe près de 'as 'average', CAST(std(pSELECT productCode, MAX(price), MIN(price),rice) a' à la ligne 1
mysql> select productcode,max(price),min(price), CAST(avg(price) as decimal(7,2)) as 'average', CAST(std(pSELECT productCode, MAX(price), MIN(price),
-> CAST(AVG(price) AS DECIMAL(7,2)) AS 'Average',
-> CAST(STD(price) AS DECIMAL(7,2)) AS 'Std Dev',
-> SUM(quantity)
-> FROM products
-> GROUP BY productCode;
Empty set (0.10 sec)

mysql> SELECT
-> productCode AS 'Product Code',
-> COUNT(*) AS 'Count',
-> CAST(AVG(price) AS DECIMAL(7,2)) AS 'Average'
-> FROM products
-> GROUP BY productCode
-> HAVING Count >=3;
Empty set (0.07 sec)

```

```

mysql> SELECT
-> productCode AS 'Product Code',
-> COUNT(*) AS 'Count',
-> CAST(AVG(price) AS DECIMAL(7,2)) AS 'Average'
-> FROM products
-> GROUP BY productCode
-> HAVING Count >=3;
Empty set (0.07 sec)

mysql> SELECT
-> productCode,
-> MAX(price),
-> MIN(price),
-> CAST(AVG(price) AS DECIMAL(7,2)) AS 'Average',
-> SUM(quantity)
-> FROM products
-> GROUP BY productCode
-> WITH ROLLUP;
Empty set (0.07 sec)

mysql> UPDATE products SET price = price*1.1;
Query OK, 0 rows affected (0.08 sec)
Enregistrements correspondants: 0 Modifiés: 0 Warnings: 0

mysql> select * from products;
Empty set (0.00 sec)

```

```

mysql> select * from products;
+-----+-----+-----+-----+-----+
| productID | productCode | name       | quantity | price |
+-----+-----+-----+-----+-----+
| 1         | PEC         | Pencil"3B | 500      | 0.52  |
| 2         | PEC         | Pencil"4B | 200      | 0.62  |
| 3         | PEC         | Pencil"5B | 100      | 0.73  |
| 4         | PEC         | Pencil"6B | 500      | 0.47  |
| 8         | PEC         | Pencil"3B | 500      | 0.52  |
| 9         | PEC         | Pencil"4B | 200      | 0.62  |
| 10        | PEC         | Pencil"5B | 100      | 0.73  |
| 11        | PEC         | Pencil"6B | 500      | 0.47  |
+-----+-----+-----+-----+-----+
11 rows in set (0.00 sec)

```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> DELETE FROM products;
ERROR 1045 (30000): Aucune base n'a été sélectionnée
mysql> INSERT INTO products VALUES (2001, 'PEC', 'Pencil 3B', 500, 0.52),
-> (NULL, 'PEC', 'Pencil 4B', 200, 0.62),
-> (NULL, 'PEC', 'Pencil 5B', 100, 0.73),
-> (NULL, 'PEC', 'Pencil 6B', 500, 0.47);
ERROR 1045 (30000): Aucune base n'a été sélectionnée
mysql> SELECT * FROM products;
ERROR 1045 (30000): Aucune base n'a été sélectionnée
mysql> use southwind;
Database changed
mysql> drop table if exists suppliers;
Query OK, 0 rows affected, 1 warning (0.14 sec)

mysql> REATE TABLE suppliers (
->     supplierID INT UNSIGNED NOT NULL AUTO_INCREMENT,
->     name VARCHAR(30) NOT NULL DEFAULT '',
->     phone CHAR(8) NOT NULL DEFAULT '',
->     PRIMARY KEY (supplierID)
-> );
ERROR 1064 (42000): Erreur de syntaxe près de 'REATE TABLE suppliers (
supplierID' à la ligne 1
mysql> REATE TABLE suppliers (
->     supplierID INT UNSIGNED NOT NULL AUTO_INCREMENT,
->     name VARCHAR(30) NOT NULL DEFAULT '',
->     phone CHAR(8) NOT NULL DEFAULT '',
->     PRIMARY KEY (supplierID)
-> );
ERROR 1064 (42000): Erreur de syntaxe près de 'REATE TABLE suppliers (
supplierID INT UNSIGNED NOT NULL AUTO_INCREMENT' à la ligne 1
mysql> CREATE TABLE suppliers (
->     supplierID INT UNSIGNED NOT NULL AUTO_INCREMENT,
->     name VARCHAR(30) NOT NULL DEFAULT '',
->     phone CHAR(8) NOT NULL DEFAULT '',
->     PRIMARY KEY (supplierID)
-> );
Query OK, 0 rows affected (0.63 sec)

mysql> DESCRIBE suppliers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| supplierID | int(10) unsigned | NO | PRI | NULL | auto_increment |
| name | varchar(30) | NO | | | |
| phone | char(8) | NO | | | |
+-----+-----+-----+-----+-----+-----+
1 rows in set (0.08 sec)

mysql>
```

Query OK, 0 rows affected (0.63 sec)

```
mysql> DESCRIBE suppliers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| supplierID | int(10) unsigned | NO | PRI | NULL | auto_increment |
| name | varchar(30) | NO | | | |
| phone | char(8) | NO | | | |
+-----+-----+-----+-----+-----+-----+
1 rows in set (0.08 sec)
```

```
mysql> INSERT INTO suppliers VALUE
-> (501, 'ABC Traders', '88881111'),
-> (502, 'XYZ Company', '88882222'),
-> (503, 'QQ Corp', '88883333');
Query OK, 3 rows affected (0.14 sec)
Inregistrements: 3 Doublons: 0 Avertissements: 0
```

```
mysql>
mysql> select * from suppliers;
+-----+-----+-----+
| supplierID | name | phone |
+-----+-----+-----+
| 501 | ABC Traders | 88881111 |
| 502 | XYZ Company | 88882222 |
| 503 | QQ Corp | 88883333 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE products
-> ADD COLUMN supplierID INT UNSIGNED NOT NULL;
Query OK, 0 rows affected (0.90 sec)
Inregistrements: 0 Doublons: 0 Avertissements: 0
```

```
mysql> describe products;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| productID | int(10) unsigned | NO | PRI | NULL | auto_increment |
| productCode | char(3) | NO | | | |
| name | varchar(30) | NO | | | |
| quantity | int(10) unsigned | NO | | 0 | |
| price | decimal(7,2) | NO | | 9999.99 | |
| supplierID | int(10) unsigned | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

```
mysql> UPDATE products SET supplierID = 501;
Query OK, 8 rows affected (0.03 sec)
Inregistrements correspondants: 8 Modifieurs: 8 Avertissements: 0
```

```
mysql> ALTER TABLE products
-> ADD FOREIGN KEY (supplierID) REFERENCES suppliers (supplierID);
Query OK, 8 rows affected (1.33 sec)
Inregistrements: 8 Doublons: 0 Avertissements: 0

mysql>
```

```
Query OK, 0 rows affected (0.90 sec)
Enregistrements: 0 Doublons: 0 Avertissements: 0

mysql> describe products;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| productID | int(10) unsigned | NO | PRI | NULL | auto_increment |
| productCode | char(3) | NO | | | |
| name | varchar(30) | NO | | | |
| quantity | int(10) unsigned | NO | | 0 | |
| price | decimal(7,2) | NO | | 99999.99 | |
| supplierID | int(10) unsigned | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> UPDATE products SET supplierID = 501;
Query OK, 8 rows affected (0.03 sec)
Enregistrements correspondants: 8 Modifieurs: 8 Warnings: 0

mysql> ALTER TABLE products
-> ADD FOREIGN KEY (supplierID) REFERENCES suppliers (supplierID);
Query OK, 8 rows affected (1.33 sec)
Enregistrements: 8 Doublons: 0 Avertissements: 0

mysql> describe products;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| productID | int(10) unsigned | NO | PRI | NULL | auto_increment |
| productCode | char(3) | NO | | | |
| name | varchar(30) | NO | | | |
| quantity | int(10) unsigned | NO | | 0 | |
| price | decimal(7,2) | NO | | 99999.99 | |
| supplierID | int(10) unsigned | NO | MUL | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.03 sec)

mysql> UPDATE products SET supplierID = 502 WHERE productID = 2004;
Query OK, 0 rows affected (0.00 sec)
Enregistrements correspondants: 0 Modifieurs: 0 Warnings: 0

mysql> select * from products;
+-----+-----+-----+-----+-----+-----+
| productID | productCode | name | quantity | price | supplierID |
+-----+-----+-----+-----+-----+-----+
| 1 | PEC | Pencil"3B | 500 | 0.52 | 501 |
| 2 | PEC | Pencil"4B | 200 | 0.62 | 501 |
| 3 | PEC | Pencil"5B | 100 | 0.73 | 501 |
| 4 | PEC | Pencil"6B | 500 | 0.47 | 501 |
| 8 | PEC | Pencil"3B | 500 | 0.52 | 501 |
| 9 | PEC | Pencil"4B | 200 | 0.62 | 501 |
| 10 | PEC | Pencil"5B | 100 | 0.73 | 501 |
| 11 | PEC | Pencil"6B | 500 | 0.47 | 501 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

```
3 rows in set (0.03 sec)

mysql> UPDATE products SET supplierID = 502 WHERE productID = 2004;
Query OK, 0 rows affected (0.00 sec)
Enregistrements correspondants: 0 Modifieurs: 0 Warnings: 0

mysql> select * from products;
+-----+-----+-----+-----+-----+-----+
| productID | productCode | name | quantity | price | supplierID |
+-----+-----+-----+-----+-----+-----+
| 1 | PEC | Pencil"3B | 500 | 0.52 | 501 |
| 2 | PEC | Pencil"4B | 200 | 0.62 | 501 |
| 3 | PEC | Pencil"5B | 100 | 0.73 | 501 |
| 4 | PEC | Pencil"6B | 500 | 0.47 | 501 |
| 8 | PEC | Pencil"3B | 500 | 0.52 | 501 |
| 9 | PEC | Pencil"4B | 200 | 0.62 | 501 |
| 10 | PEC | Pencil"5B | 100 | 0.73 | 501 |
| 11 | PEC | Pencil"6B | 500 | 0.47 | 501 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> SELECT products.name, price, suppliers.name
-> FROM products
-> JOIN suppliers ON products.supplierID = suppliers.supplierID
-> WHERE price < 0.6;
+-----+-----+-----+
| name | price | name |
+-----+-----+-----+
| Pencil"3B | 0.52 | ABC Traders |
| Pencil"6B | 0.47 | ABC Traders |
| Pencil"3B | 0.52 | ABC Traders |
| Pencil"6B | 0.47 | ABC Traders |
+-----+-----+-----+
4 rows in set (0.03 sec)

mysql> "SELECT products.name, price, suppliers.name
-> FROM products, suppliers
-> WHERE products.supplierID = suppliers.supplierID
-> AND price < 0.6;
->
```