Poistetaan pet-taulusta owner-kenttä. Lisätään sen tilalle viiteavain omistaja-tauluun.

```
mysql> ALTER TABLE pet DROP COLUMN owner;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE pet ADD COLUMN petID INT PRIMARY KEY AUTO_INCREMENT;
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE pet ADD COLUMN ownerID INT;
Query OK, 0 rows affected (0.01 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> ALTER TABLE pet ADD CONSTRAINT FOREIGN KEY(ownerID) REFERENCES
    -> owner(ownerID);
Query OK, 8 rows affected (0.04 sec)
Records: 8  Duplicates: 0  Warnings: 0

mysql> desc pet;
+---------+-------------+------+-----+---------+----------------+
| Field   | Type        | Null | Key | Default | Extra          |
+---------+-------------+------+-----+---------+----------------+
| name    | varchar(20) | YES  |     | NULL    |                |
| species | varchar(20) | YES  |     | NULL    |                |
| sex     | char(1)     | YES  |     | NULL    |                |
| birth   | date        | YES  |     | NULL    |                |
| death   | date        | YES  |     | NULL    |                |
| petID   | int         | NO   | PRI | NULL    | auto_increment |
| ownerID | int         | YES  | MUL | NULL    |                |
+---------+-------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)
```

Syötetään omistajatiedot owner-tauluun:

```
mysql> INSERT INTO owner VALUES ( 'Harold','Lloyd','Someaddress 1',NULL);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO owner VALUES ( 'Gwen','Stefani','Someaddress 2',NULL);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO owner VALUES ( 'Benny','Hill','Someaddress 3',NULL);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO owner VALUES ( 'Diane','Keaton','Someaddress 4',NULL);
Query OK, 1 row affected (0.00 sec)
```

UPDATE lauseella määritetään eläinten omistajat:

```
mysql> UPDATE pet SET ownerID=3 WHERE name='Claws';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> UPDATE pet SET ownerID=1 WHERE name='Buffy';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> UPDATE pet SET ownerID=4 WHERE name='Fang';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE pet SET ownerID=5 WHERE name='Bowser';
```

pet taulu:

```
mysql> desc pet;
+---------+-------------+------+-----+---------+----------------+
| Field   | Type        | Null | Key | Default | Extra          |
+---------+-------------+------+-----+---------+----------------+
| name    | varchar(20) | YES  |     | NULL    |                |
| species | varchar(20) | YES  |     | NULL    |                |
| sex     | char(1)     | YES  |     | NULL    |                |
| birth   | date        | YES  |     | NULL    |                |
| death   | date        | YES  |     | NULL    |                |
| petID   | int         | NO   | PRI | NULL    | auto_increment |
| ownerID | int         | YES  | MUL | NULL    |                |
+---------+-------------+------+-----+---------+----------------+
7 rows in set (0.00 sec)
```

```
mysql> select * from pet
    -> ;
+----------+---------+------+------------+------------+-------+---------+
| name     | species | sex  | birth      | death      | petID | ownerID |
+----------+---------+------+------------+------------+-------+---------+
| Fluffy   | cat     | f    | 1993-02-04 | NULL       |     1 |       1 |
| Claws    | cat     | m    | 1994-03-17 | NULL       |     2 |       3 |
| Buffy    | dog     | f    | 1989-05-13 | NULL       |     3 |       1 |
| Fang     | dog     | m    | 1990-08-27 | NULL       |     4 |       4 |
| Bowser   | dog     | m    | 1998-08-31 | 1995-07-29 |     5 |       2 |
| Chirpy   | bird    | f    | 1998-09-11 | 2000-09-15 |     6 |       3 |
| Whistler | bird    | NULL | 1997-12-09 | NULL       |     7 |       3 |
| Slim     | snake   | m    | 1996-04-29 | NULL       |     8 |       4 |
+----------+---------+------+------------+------------+-------+---------+
```

haetaan omistajan etunimi ja häneen yhdistetty lemmikin nimi:

```
mysql> SELECT first_name,name FROM pet JOIN
    -> owner on pet.ownerID = owner.ownerID;
+------------+----------+
| first_name | name     |
+------------+----------+
| Harold     | Fluffy   |
| Harold     | Buffy    |
| Gwen       | Bowser   |
| Benny      | Claws    |
| Benny      | Chirpy   |
| Benny      | Whistler |
| Diane      | Fang     |
| Diane      | Slim     |
+------------+----------+
8 rows in set (0.00 sec)
```