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Kod och Resultat

Part 2:

A SELECT using an inequality

```
MariaDB [clinic]> SELECT customer.customerid, petid, petname, fname, lname
    -> FROM pet
    -> JOIN customer on pet.customerid = customer.customerid
    -> JOIN person ON customer.personid = person.personid
    -> AND (customer.customerid!='AC001');
+------------+-------+------------+----------+-----------+
| customerid | petid | petname    | fname    | lname     |
+------------+-------+------------+----------+-----------+
| AD001      | -01   | Patty      | Jonathan | Adams     |
| AD002      | -01   | Dee Dee    | William  | Adams     |
| AD003      | -01   | Fi Fi      | Adam     | Johnson   |
| AD004      | -01   | Flaxe      | Karl     | Backan    |
| AD005      | -01   | Varge      | Karl     | Petterson |
| AD001      | -02   | Rising Sun | Jonathan | Adams     |
| AK001      | -03   | Jerry      | Kingdom  | Animal    |
| AK001      | -07   | Luigi      | Kingdom  | Animal    |
+------------+-------+------------+----------+-----------+
8 rows in set (0.001 sec)

MariaDB [clinic]>
```

Tar fram alla pets som inte tillhör AC001.

A SELECT using LIKE on a text field

```
MariaDB [clinic]> SELECT * FROM person WHERE zip LIKE '8%';
+----------+-----------+---------+-------------+--------+-----------+
| PersonID | Lname     | Fname   | City        | States | zip       |
+----------+-----------+---------+-------------+--------+-----------+
|       13 | Animal    | Kingdom | Borderville | ID     | 834835646 |
|       14 | Johnson   | Adam    | New York    | NY     |     84657 |
|       15 | Backan    | Karl    | Sundsvall   | VN     |     85233 |
|       16 | Petterson | Karl    | Sundsvall   | VN     |     85233 |
+----------+-----------+---------+-------------+--------+-----------+
4 rows in set (0.001 sec)
```

Tar fram alla personen vars zip börjar på 8.

A SELECT on a DATE column

```
MariaDB [clinic]> Select dob FROM pet;
+------------+
| dob        |
+------------+
| 1992-04-08 |
| 1991-02-15 |
| 1991-02-15 |
| NULL       |
| 1993-03-05 |
| 2012-03-07 |
| 1992-05-01 |
| 1990-04-10 |
| 1991-08-01 |
| 1988-02-01 |
| 1990-06-01 |
| 1992-02-01 |
+------------+
12 rows in set (0.001 sec)
```

Tar fram dob på alla pets.

A query using GROUP BY

```
MariaDB [clinic]> SELECT appointment.appointmentID, SUM(price)
    -> FROM aptformed
    -> JOIN medication ON aptformed.medicationid = medication.medicationid
    -> JOIN appointment ON aptformed.appointmentid = appointment.appointmentid
    -> GROUP BY appointment.appointmentid HAVING (appointment.appointmentid='01');
+---------------+------------+
| appointmentID | SUM(price) |
+---------------+------------+
|             1 |      46.00 |
+---------------+------------+
1 row in set (0.001 sec)
```

Summerar alla medications som användes på appointmentid = 01 (fido).

A query using HAVING

```
MariaDB [clinic]> SELECT appointment.appointmentID, SUM(price)
    -> FROM aptformed
    -> JOIN medication ON aptformed.medicationid = medication.medicationid
    -> JOIN appointment ON aptformed.appointmentid = appointment.appointmentid
    -> GROUP BY appointment.appointmentid HAVING (appointment.appointmentid='01');
+---------------+------------+
| appointmentID | SUM(price) |
+---------------+------------+
|             1 |      46.00 |
+---------------+------------+
1 row in set (0.001 sec)
```

Summerar alla medications som användes på appointmentid = 01 (fido).

A query using ORDER BY

```
MariaDB [clinic]> SELECT pet.petname, pet.customerid, pet.breedname, animaltype.animalname
    -> FROM pet
    -> JOIN breed ON pet.breedname = breed.breedname
    -> JOIN animaltype ON breed.animalname = animaltype.animalname
    -> AND (pet.animalname='DOG') ORDER BY pet.petname;
+---------+------------+-----------------+------------+
| petname | customerid | breedname       | animalname |
+---------+------------+-----------------+------------+
| Dee Dee | AD002      | Mixed           | DOG        |
| Fido    | AC001      | German Shepherd | DOG        |
| Luigi   | AK001      | Beagle          | DOG        |
+---------+------------+-----------------+------------+
3 rows in set (0.003 sec)
```

Tar fram alla djur som tillhör rasen DOG och sorterar via namn.

A query using a subquery

```
MariaDB [clinic]> SELECT personid, fname, lname
    -> FROM person
    -> WHERE personid IN (SELECT personid FROM customer WHERE phonenr LIKE '(206)%')
    -> OR personid IN (SELECT personid FROM employee WHERE homephone LIKE '(206)%')
    -> ORDER BY personid;
+----------+-----------+------------+
| personid | fname     | lname      |
+----------+-----------+------------+
|        1 | Todd      | Becker     |
|        2 | Rosie     | Bowie      |
|        3 | Maram     | Carrington |
|        7 | Mary      | Plotter    |
|        9 | Margaret  | Walters    |
|       10 | Creatures | All        |
|       11 | Jonathan  | Adams      |
+----------+-----------+------------+
7 rows in set (0.001 sec)
```

Tar fram alla personid, fname och lname på alla personer som antingen är customer och har phonenr som börjar på 206 eller employees som har homephone som börjar på 206.

A query using a correlated subquery

```
MariaDB [clinic]> SELECT * FROM person
    -> WHERE NOT EXISTS (SELECT * FROM employee WHERE employee.personid = person.personid);
+----------+-----------+-----------+---------------+--------+-----------+
| PersonID | Lname     | Fname     | City          | States | zip       |
+----------+-----------+-----------+---------------+--------+-----------+
|       10 | All       | Creatures | Tall Pines    | WA     |     98746 |
|       11 | Adams     | Jonathan  | Mountain View | WA     | 984101012 |
|       12 | Adams     | William   | LAkeville     | OR     | 974011011 |
|       13 | Animal    | Kingdom   | Borderville   | ID     | 834835646 |
|       14 | Johnson   | Adam      | New York      | NY     |     84657 |
|       15 | Backan    | Karl      | Sundsvall     | VN     |     85233 |
|       16 | Petterson | Karl      | Sundsvall     | VN     |     85233 |
+----------+-----------+-----------+---------------+--------+-----------+
7 rows in set (0.001 sec)
```

Tar fram allt från personer som inte är en employee.

A query involving COUNT(*)

```
MariaDB [clinic]> SELECT education, COUNT(education) AS amount
    -> FROM employee
    -> WHERE education = 'MS.';
+-----------+--------+
| education | amount |
+-----------+--------+
| MS.       |      5 |
+-----------+--------+
1 row in set (0.001 sec)
```

Räknar alla employees som har MS. som education.

A query involving another aggregate function

```
MariaDB [clinic]> SELECT appointment.appointmentID, SUM(price)
    -> FROM aptformed
    -> JOIN medication ON aptformed.medicationid = medication.medicationid
    -> JOIN appointment ON aptformed.appointmentid = appointment.appointmentid
    -> GROUP BY appointment.appointmentid HAVING (appointment.appointmentid='01');
+---------------+------------+
| appointmentID | SUM(price) |
+---------------+------------+
|             1 |      46.00 |
+---------------+------------+
1 row in set (0.001 sec)
```

Summerar alla medications som användes på appointmentid = 01 (fido).

A selective DELETE

```
MariaDB [clinic]> DELETE FROM animaltype
    -> WHERE animalname ='DUCK';
Query OK, 1 row affected (0.007 sec)
```

Tar bort djurtypen DUCK. Funkar endast eftersom det inte finns något djur associerat med DUCK. Om jag försöker ta bort vilken annan typ får man error. Då skulle databasen referera till något som inte existerar.

```
MariaDB [clinic]> DELETE FROM person
    -> WHERE personid = 11;
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails
 (`clinic`.`customer`, CONSTRAINT `customer_ibfk_1` FOREIGN KEY (`PersonID`) REFERENCES
`person` (`PersonID`))
MariaDB [clinic]>
```

A selective UPDATE

```
MariaDB [clinic]> select * from person;
+----------+------------+-----------+---------------+--------+-----------+
| PersonID | Lname      | Fname     | City          | States | zip       |
+----------+------------+-----------+---------------+--------+-----------+
|        1 | Becker     | Todd      | Tacoma        | WA     |     98401 |
|        2 | Bowie      | Rosie     | Seattle       | WA     |     98105 |
|        3 | Carrington | Maram     | Kirkland      | WA     |     98033 |
|        4 | Chiu       | Lin       | Tacoma        | WA     |     98402 |
|        5 | Dennis     | Anne      | Bellingham    | WA     |     98047 |
|        6 | Peters     | Peter     | Bellingham    | WA     |     98047 |
|        7 | Plotter    | Mary      | Seattle       | WA     |     98122 |
|        8 | Wally      | Robert    | Seattle       | WA     |     98125 |
|        9 | Walters    | Margaret  | Redmond       | WA     |     98052 |
|       10 | All        | Creatures | Tall Pines    | WA     |     98746 |
|       11 | Adams      | Jonathan  | Mountain View | WA     | 984101012 |
|       12 | Adams      | William   | LAkeville     | OR     | 974011011 |
|       13 | Animal     | Kingdom   | Borderville   | ID     | 834835646 |
|       14 | Johnson    | Adam      | New York      | NY     |     84657 |
|       15 | Backan     | Karl      | Sundsvall     | VN     |     85233 |
|       16 | Petterson  | Karl      | Sundsvall     | VN     |     85233 |
+----------+------------+-----------+---------------+--------+-----------+
16 rows in set (0.001 sec)

MariaDB [clinic]> UPDATE person
    -> SET lname = 'Lastname', fname = 'Firstname'
    -> WHERE personid = 15;
Query OK, 1 row affected (0.002 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [clinic]>
MariaDB [clinic]> select * from person;
+----------+------------+-----------+---------------+--------+-----------+
| PersonID | Lname      | Fname     | City          | States | zip       |
+----------+------------+-----------+---------------+--------+-----------+
|        1 | Becker     | Todd      | Tacoma        | WA     |     98401 |
|        2 | Bowie      | Rosie     | Seattle       | WA     |     98105 |
|        3 | Carrington | Maram     | Kirkland      | WA     |     98033 |
|        4 | Chiu       | Lin       | Tacoma        | WA     |     98402 |
|        5 | Dennis     | Anne      | Bellingham    | WA     |     98047 |
|        6 | Peters     | Peter     | Bellingham    | WA     |     98047 |
|        7 | Plotter    | Mary      | Seattle       | WA     |     98122 |
|        8 | Wally      | Robert    | Seattle       | WA     |     98125 |
|        9 | Walters    | Margaret  | Redmond       | WA     |     98052 |
|       10 | All        | Creatures | Tall Pines    | WA     |     98746 |
|       11 | Adams      | Jonathan  | Mountain View | WA     | 984101012 |
|       12 | Adams      | William   | LAkeville     | OR     | 974011011 |
|       13 | Animal     | Kingdom   | Borderville   | ID     | 834835646 |
|       14 | Johnson    | Adam      | New York      | NY     |     84657 |
|       15 | Lastname   | Firstname | Sundsvall     | VN     |     85233 |
|       16 | Petterson  | Karl      | Sundsvall     | VN     |     85233 |
+----------+------------+-----------+---------------+--------+-----------+
16 rows in set (0.001 sec)
```

Byter namn på personen med personid 15.

Bild på Instruktionerna *Hospital Employees.*

```
MariaDB [clinic]> SELECT employeeid, person.lname, person.fname, education, hiredate
    -> , address, person.city, person.states, person.zip, homephone
    -> FROM employee, person
    -> WHERE employee.personid = person.personid
    -> ORDER BY lname;
+------------+-----------+---------+-----------+------------+-----------------------------+------------+--------+-------+----------------+
| employeeid | lname     | fname   | education | hiredate   | address                     | city       | states | zip   | homephone      |
+------------+-----------+---------+-----------+------------+-----------------------------+------------+--------+-------+----------------+
|          2 | Becker    | Todd    | MS.       | 1992-08-04 | 908 W.Capital Way           | Tacoma     | WA     | 98401 | (206) 555-9482 |
|          8 | Bowie     | Rosie   | BS.       | 1994-03-15 | 4726-11th Ave. N.E.         | Seattle    | WA     | 98105 | (206) 555-1189 |
|          3 | Carrington | Maram  | MS.       | 1992-04-01 | 722 Moss Bay Blvd.          | Kirkland   | WA     | 98033 | (206) 555-3412 |
|          6 | Chiu      | Lin     | MS.       | 1993-10-17 | Coventy House Miner Rd.     | Tacoma     | WA     | 98402 | (71) 555-7773  |
|          9 | Dennis    | Anne    | MS.       | 1994-11-05 | 7 Hounds tooth Rd.          | Bellingham | WA     | 98047 | (71) 555-4444  |
|          5 | Peters    | Peter   | BS.       | 1993-10-17 | 14 Garret Hill              | Bellingham | WA     | 98047 | (71) 555-4848  |
|          1 | Plotter   | Mary    | PhD.      | 1992-05-01 | 507-20th Ave. E. Apt. 2A    | Seattle    | WA     | 98122 | (206) 555-9857 |
|          7 | Wally     | Robert  | AA.       | 1994-01-02 | Edgeham Hollow Wincester Way | Seattle   | WA     | 98125 | (71) 555-5598  |
|          4 | Walters   | Margaret | MS.      | 1993-05-03 | 4110 Old Redmond Rd.        | Redmond    | WA     | 98052 | (206) 555-8122 |
+------------+-----------+---------+-----------+------------+-----------------------------+------------+--------+-------+----------------+
9 rows in set (0.001 sec)

MariaDB [clinic]>
```