CPSC 6620

Assignment 4

|  |  |  |
| --- | --- | --- |
| **Database Name** | **Username** | **Password** |
|  |  |  |

Pet table:

Text, table

Description automatically generatedTable

Description automatically generatedEvent Table:

**Query 1**: List owners who have at least 2 pets and their respective numbers of pets.

**SELECT owner, COUNT(\*) AS pet\_no FROM pet GROUP BY owner HAVING pet\_no >= 2;**

**OUTPUT:**

Table

Description automatically generated

**Query 2**: Write a nested query in at least two ways to retrieve the owners who own a dog but not a cat. You can write a nested queries using the following four ways: using IN/NOT IN or EXIST/NOT EXIST in where condition, nested at the where clause or nested at the FROM list.

**SELECT owner FROM pet WHERE species = 'dog' AND owner NOT IN (SELECT owner FROM pet WHERE species = 'cat');**

**OUTPUT:**

Graphical user interface, application

Description automatically generated

**SELECT owner FROM pet AS t1 WHERE species = 'dog' AND NOT EXISTS (SELECT owner FROM pet AS t2 WHERE species = 'cat' AND t2.owner = t1.owner);**

Graphical user interface, application

Description automatically generated

**OUTPUT:**

**Query 3**: Write two queries, one with JOIN and one without JOIN, to List the owner, name, event type, and event date of the pets who had event when they are at least 2 years old.

**SELECT owner, name, type, date FROM (SELECT pet.owner, pet.name, event.type, date, (YEAR(date)-YEAR(birth)) - (RIGHT(date,5)<RIGHT(birth,5)) AS age FROM pet LEFT JOIN event on pet.name = event.name) AS t WHERE age >= 2;**

**OUTPUT:**

Table

Description automatically generated

**SELECT owner, name, type, date FROM (SELECT pet.owner, pet.name, event.type, date, YEAR(date)-YEAR(birth) - (RIGHT(date,5)<RIGHT(birth,5)) AS age FROM pet, event WHERE pet.name = event.name) AS t WHERE age >= 2;**

**OUTPUT:**

Table

Description automatically generated

**Query 4**: Write a query to list the pet who had the most number of "litter" event.

**SELECT name FROM event WHERE type = 'litter' GROUP BY name ORDER BY COUNT(\*) DESC LIMIT 1;**

**OUTPUT:**

Graphical user interface, website

Description automatically generated

**Query 5**: Write a query to find the pet who had "litter" at its youngest age (i. e., her age is the youngest at the "litter" event among those who had "litter").

**SELECT pet.name FROM pet LEFT JOIN event on pet.name = event.name WHERE type = 'litter' ORDER BY YEAR(date)-YEAR(birth) - (RIGHT(date,5)<RIGHT(birth,5)) ASC limit 1;**

**OUTPUT:**

Graphical user interface, application

Description automatically generated with medium confidence