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**Dekhane – ITEC 3200 Summer 2018**

**Select Statements**

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3.15 Write an SQL statement to display all columns of all rows of PET. Do not use the asterisk (\*) notation.

SELECT PetID, PetName, PetType, PetBreed, PetDOB, OwnerID

FROM PET;

3.16 Write an SQL statement to display all columns of all rows of PET. Use the asterisk (\*) notation.

SELECT \*

FROM PET;

3.17 Write an SQL statement to display the breed and type of all pets.

SELECT PetBreed, PetType

FROM PET;

3.18 Write an SQL statement to display the breed, type, and DOB of all pets having the type Dog.

SELECT PetBreed, PetType

FROM PET

WHERE PetType = “Dog”;

3.19 Write an SQL statement to display the PetBreed column of PET.

SELECT PetBreed

FROM PET;

3.20 Write an SQL statement to display the PetBreed column of PET. Do not show duplicates.

SELECT DISTINCT PetBreed

FROM PET;

3.21 Write an SQL statement to display the breed, type, and DOB for all pets having the type Dog and the breed Std. Poodle.

SELECT PetBreed, PetType, PetDOB

FROM PET

WHERE PetBreed = “Std. Poodle” AND PetType = “Dog”;

3.22 Write an SQL statement to display the name, breed, and type for all pets that are not of type Cat, Dog, or Fish.

SELECT PetName, PetBreed, PetType

FROM PET

WHERE PetType NOT IN (“Cat”, “Dog”, “Fish”);

3.23 Write an SQL statement to display the pet ID, breed, and type for all pets having a four-character name starting with K. Note that the RTRIM function will be needed in the solution that uses a CHAR column, but not for one that uses a VARCHAR column.

SELECT PetID, PetBreed, PetType

FROM PET

WHERE PetName LIKE “K \_ \_ \_”;

3.24 Write an SQL statement to display the last name, first name, and email of all owners who have an email address ending with somewhere.com. Assume that email account names can be any number of characters.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM PET\_OWNER

WHERE OwnerEmail LIKE “%somewhere.com”;

3.25 Write an SQL statement to display the last name, first name, and email of any owner who has a NULL value for OwnerPhone.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM PET\_OWNER

WHERE OwnerPhone = NULL;

3.26 Write an SQL statement to display the name and breed of all pets, sorted by PetName.

SELECT PetName, PetBreed

FROM PET

ORDER BY PetName;

3.27 Write an SQL statement to display the name and breed of all pets, sorted by PetBreed in ascending order and by PetName in descending order within PetBreed.

SELECT PetName, PetBreed

FROM PET

ORDER BY PetBreed ASC, PetName DESC;

3.28 Write an SQL statement to count the number of pets.

SELECT COUNT(\*)

FROM PET;

3.29 Write an SQL statement to count the number of distinct breeds.

SELECT COUNT(DISTINCT PetBreed)

FROM PET;

3.32 Write an SQL statement to group the data by PetBreed and display the average weight per breed.

SELECT AVG(PetWeight)

FROM PET\_3

GROUP BY PetBreed;

3.33 Answer question 3.32, but consider only breeds for which two or more pets are included in the database.

SELECT AVG(PetWeight)

FROM PET\_3

HAVING COUNT(\*) > 2

GROUP BY PetBreed;

3.34 Answer question 3.33, but do not consider any pet having the breed of Unknown.

SELECT AVG(PetWeight)

FROM PET\_3

HAVING COUNT(\*) > 2 AND PetBreed != “Unknown”

GROUP BY PetBreed;

3.35 Write an SQL statement to display the last name, first name, and email of any owners of cats. Use a subquery.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER

WHERE OwnerID IN

(SELECT OwnerID

FROM PET\_3

WHERE PetType = “Cat”);

3.36 Write an SQL statement to display the last name, first name, and email of any owners of cats with a cat named Teddy. Use a subquery.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER

WHERE OwnerID IN

(SELECT OwnerID

FROM PET\_3

WHERE PetName = “Teddy”);

3.37 - (4) with the BREED table added to the pet database, write an SQL statement to display the last name, first name, and email of any owner of a pet that has an AverageLifeExpectancy value greater than 15. Use a subquery.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER

WHERE OwnerID IN

(SELECT OwnerID

FROM PET\_3

WHERE PetBreed IN

(SELECT BreedName

FROM BREED

WHERE AverageLifeExpectancy > 15));

3.38 Answer question 3.35, but use a join using JOIN ON syntax.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER AS O JOIN PET\_3 AS P

ON O.OwnerID = P.OwnerID

WHERE P. PetType = “Cat”;

3.39 Answer question 3.36, but use a join using JOIN ON syntax.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER AS O JOIN PET\_3 AS P

ON O.OwnerID = P.OwnerID

WHERE P.PetName = “Teddy”;

3.40 Answer part (4) of question 3.37, but use joins using JOIN ON syntax.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail

FROM OWNER AS O JOIN PET\_3 AS P

ON O.OwnerID = P.OwnerID

FROM Pet\_3 AS P JOIN BREED AS B

ON P.PetBreed = B.BreedName

WHERE B.AverageLifeExpectancy > 15;

3.41 Write an SQL statement to display the OwnerLastName, OwnerFirstName, PetName, PetType, PetBreed, and AverageLifeExpectancy for pets with a known PetBreed.

SELECT OwnerLastName, OwnerFirstName, OwnerEmail, PetName, PetType, PetBreed, AverageLifeExpectancy

FROM OWNER AS O JOIN PET\_3 AS P JOIN BREED AS B

ON O.OwnerID = P.OwnerID AND P.BreedName = B.BreedName

WHERE B.AverageLifeExpectancy > 15

AND B.BreedName NOT “Unknown”;

3.44 Write an SQL statement to change the value of Std. Poodle in BreedName of BREED to Poodle, Std. When you ran this statement, what happened to the data values of PetBread in the PET\_3 table? Why did this occur?

UPDATE BREED

SET BreedName ‘Poodle, Std’

WHERE BreedName = ‘Std. Poodle’;

3.45 Explain what will happen if you leave the WHERE clause off your answer to question 3.44.

If the WHERE is left off, all of the BreedNames will be set to ‘Poodle, Std.’

3.46 Write an SQL statement to delete all rows of pets of type Anteater. What will hap-pen if you forget to code the WHERE clause in this statement?

DELETE FROM PET\_3

WHERE PetBreed = ‘Anteater’;

If the WHERE is left off, nothing should happen or be different because there are no Anteaters in the database anyway.

3.47 Write an SQL statement to add a PetWeight column like the one in PET\_3 to the PET table, given that this column is NULL. Again, assume that PetWeight is Numeric(4,1).

ALTER PET

ADD PetWeight Numeric(4,1);

3.48 Write SQL statements to insert data into the PetWeight column you created in question 3.47. Use the PetWeight data from the PET\_3 table as shown in Figure 3-29.

INSERT INTO PET PetWeight VALUES (25.1)

WHERE PetID = 1;

INSERT INTO PET PetWeight VALUES (10.5)

WHERE PetID = 2;

INSERT INTO PET PetWeight VALUES (28.5)

WHERE PetID = 3;

INSERT INTO PET PetWeight VALUES (20.0)

WHERE PetID = 4;

INSERT INTO PET PetWeight VALUES (9.5)

WHERE PetID = 5;

INSERT INTO PET PetWeight VALUES (9.5)

WHERE PetID = 6;

INSERT INTO PET PetWeight VALUES (25.0)

WHERE PetID = 7;