**Name: Ching Kung Lin**

**Analysis of NYC Dog Licenses**

**Objective**

**• Install Oracle on your computer**

**• Practice getting started with Oracle by using the SQL Create Table and Select operations.**

**• Analyze dog licenses issued by New York City between 2014 and 2019.**

**• Create searches and output using SQL**

1. Create a new primary key column for the dog’s table. Show the SQL to implement.

create table nyc\_dog

(ANIMAL\_ID NUMBER PRIMARY KEY,

ANIMAL\_NAME VARCHAR(255) ,

ANIMAL\_GENDER VARCHAR(255) ,

ANIMAL\_MONTH\_BIRTH Number ,

BREED\_NAME VARCHAR(255) ,

ZIPCODE VARCHAR(255) ,

LICENSE\_ISSUED\_DATE Date ,

LICENSE\_EXPIRE\_DATE Date );

2. Populate the primary key with unique values. Show the SQL to implement.

CREATE SEQUENCE AMIMAL\_id\_seq;

CREATE TRIGGER ANIMAL\_ID\_PLUS

BEFORE INSERT ON NYC\_DOG

FOR EACH ROW

BEGIN

SELECT AMIMAL\_id\_seq.nextval

INTO :new.ANIMAL\_ID

FROM dual;

END;

3. Identify the most popular dog names for licenses issued in 2019. Display the animal’s name and number of licenses. Display the most popular dog name first.

SELECT animal\_name, COUNT(1) "number of licenses"

FROM nyc\_dog

WHERE license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

GROUP BY animal\_name

ORDER BY 2 DESC

ANIMAL\_NAME number of licenses

UNKNOWN 992

BELLA 912

MAX 835

CHARLIE 691

COCO 608

4. Identify the most popular male dog names for licenses issued in 2019. Display the animal’s name and number of licenses. Display the most popular male dog name first.

SELECT animal\_name, COUNT(1) "number of licenses"

FROM nyc\_dog

WHERE license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

AND animal\_gender = 'M'

GROUP BY animal\_name

ORDER BY 2 DESC

ANIMAL\_NAME number of licenses

MAX 825

CHARLIE 592

UNKNOWN 582

ROCKY 550

BUDDY 449

5. Identify the most popular female dog names for licenses issued in 2019. Display the animal’s name and number of licenses. Display the most popular female dog name first.

SELECT animal\_name, COUNT(1) "number of licenses"

FROM nyc\_dog

WHERE license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

AND animal\_gender = 'F'

GROUP BY animal\_name

ORDER BY 2 DESC

ANIMAL\_NAME number of licenses

BELLA 907

LOLA 551

LUNA 526

LUCY 497

DAISY 458

6. Identify the number of poodles by borough for licenses issued in 2019. Display the breed, borough and number of dogs.

SELECT zipcode, COUNT(1)"number of poodles"

FROM nyc\_dog

WHERE BREED\_NAME LIKE 'Poodle' AND license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

GROUP BY zipcode

ORDER BY 1 ASC

ZIPCODE number of poodles

10001 8

10002 3

10003 6

10004 2

10005 1

7. Identify the most popular breeds near Queens College for licenses issued in 2019. Display the breed and number of dogs. Display the most popular breed first.

SELECT breed\_name, COUNT(1)"popular breeds near Queens College"

FROM nyc\_dog

WHERE license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

AND ZIPCODE = '11367'

GROUP BY breed\_name

ORDER BY 2 DESC

BREED\_NAME popular breeds near Queens College

Unknown 42

Yorkshire Terrier 24

Shih Tzu 19

Shiba Inu 14

Pomeranian 13

8. Identify the oldest dogs. Display the animal’s name, gender, breed, zipcode, and borough. Display the oldest dog first.

SELECT animal\_name,animal\_gender,breed\_name,zipcode

FROM nyc\_dog

ORDER BY animal\_month\_birth ASC

ANIMAL\_NAME ANIMAL\_GENDER BREED\_NAME ZIPCODE

MOTEK M Cavalier King Charles Spaniel 10024

BONNIE F Schnauzer, Miniature 11354

NINA F Chihuahua 11354

LENNY M Miniature Schnauzer 11205

BODHI M French Bulldog 11103

9. Identify the zipcodes with the most dogs for licenses issued in 2019. Display the zipcode, borough and number of dogs. Display the most popular zipcode first. Where is this zipcode? Include a picture from Google Maps.

SELECT ZIPCODE, COUNT(1)"NUMBER OF DOGS"

FROM nyc\_dog

WHERE license\_expire\_date >= TO\_DATE('01-JAN-19', 'DD-MM-YY') AND license\_expire\_date <= TO\_DATE('31-DEC-19', 'DD-MM-YY')

GROUP BY ZIPCODE

ORDER BY 2 DESC

ZIPCODE NUMBER OF DOGS

10025 1863

10023 1457

10024 1449

11201 1425

10009 1387

10025 - GREAT NECK

Map

Description automatically generated

10. Perform an analysis of your own choosing.

Graphical user interface, application

Description automatically generated

11. Display the structure of ALL tables using SQL Describe.

Name Null? Type

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ANIMAL\_ID NOT NULL NUMBER

ANIMAL\_NAME VARCHAR2(255)

ANIMAL\_GENDER VARCHAR2(255)

ANIMAL\_MONTH\_BIRTH NUMBER

BREED\_NAME VARCHAR2(255)

ZIPCODE VARCHAR2(255)

LICENSE\_ISSUED\_DATE DATE

LICENSE\_EXPIRE\_DATE DATE

Name Null? Type

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ZIPCODE VARCHAR2(10)

CITY VARCHAR2(50)

COUNTY VARCHAR2(50)

ZIP\_TYPE VARCHAR2(50)

12. Display the version of Oracle. Enter:

SELECT \*

FROM v$version;

Oracle Database 18c Express Edition Release 18.0.0.0.0 - Production "Oracle Database 18c Express Edition Release 18.0.0.0.0 - Production

Version 18.4.0.0.0" Oracle Database 18c Express Edition Release 18.0.0.0.0 - Production 0