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Class: CS 331

Project: 2

Create DB:

**CREATE TABLE VILO (**

**PLATE VARCHAR2(11),**

**STATE VARCHAR2(2),**

**LICENSE\_TYPE VARCHAR2(3),**

**SUMMONS\_NUMBER VARCHAR2(11),**

**ISSUE\_DATE DATE,**

**VIOLAMTION\_TIME DATE,**

**VIOLATION VARCHAR2(30),**

**FINE\_AMOUNT FLOAT,**

**PENALTY\_AMOUNT FLOAT,**

**INTEREST\_AMOUNT FLOAT,**

**REDUCTION\_AMOUNT FLOAT,**

**PAYMENT\_AMOUNT FLOAT,**

**AMOUNT\_DUE FLOAT,**

**PRECINCT VARCHAR2(3),**

**COUNTY VARCHAR2(2),**

**ISSUING\_AGENCY VARCHAR2(25),**

**VIOLATION\_STATUS VARCHAR2(30),**

**SUMMONS\_IMAGE VARCHAR2(256));**

//Lost a lot of rows, have 412,052 through my mistake

// Insert failed for rows 35884 through 36883

// ORA-12899: value too large for column "SYS"."VILO"."ISSUING\_AGENCY" (actual: 31, maximum: 25)

**ALTER TABLE vilo**

**MODIFY SUMMONS\_NUMBER VARCHAR2(11) PRIMARY KEY;**

Q1:

Identify the number of violations for a 1 month period. Display 1 row

with the number of violations.

**SELECT COUNT(vilo.SUMMONS\_NUMBER)**

**from vilo**

**WHERE vilo.ISSUE\_DATE BETWEEN date'2021-01-01' and date'2021-01-31';**



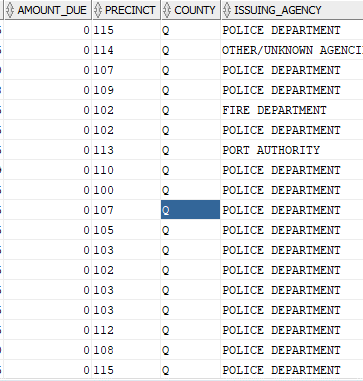
Q2:

Identify the violations by county. Display 3 columns: county, number

of violations, total fine amount. The county with the largest number of

violations is displayed first. Display 1 row for each distinct county.

// Can't do County imported wrong.



Q3:

Identify the violations by license plate. Display 4 columns: License

plate, license state, number of violations and total cost. The license

plate with the most violatios is displayed first. Display 1 row for each

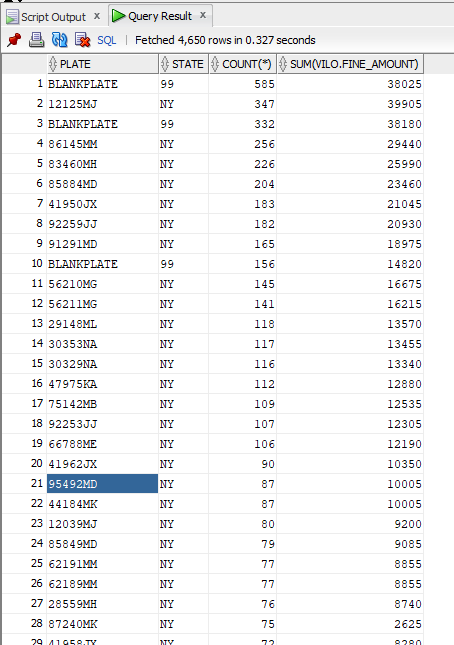
distinct license plate.

**SELECT vilo.plate, vilo.STATE, COUNT(\*), sum(vilo.fine\_amount)**

**FROM vilo**

**GROUP BY vilo.plate, vilo.STATE, vilo.fine\_amount**

**order BY COUNT(\*) DESC;**

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Q4:

Identify the violations by license type. Display 3 columns: license type,

number of violations and total fine amount. The license type with the

most violations is displayed first. Display 1 row for each distinct

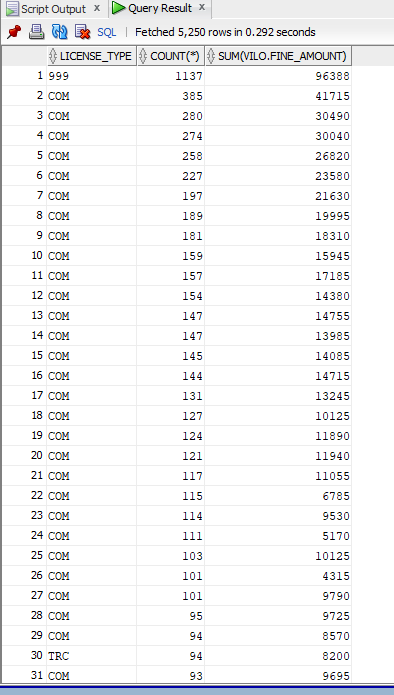
licnese type.

**SELECT vilo.LICENSE\_TYPE, COUNT(\*), sum(vilo.fine\_amount)**

**FROM vilo**

**GROUP BY vilo.plate, vilo.LICENSE\_TYPE**

**order BY COUNT(\*) DESC;**



Q5:

Identify violations by license plate state. Display 3 columns: state,

number of violations and total fine amount. The state with the most

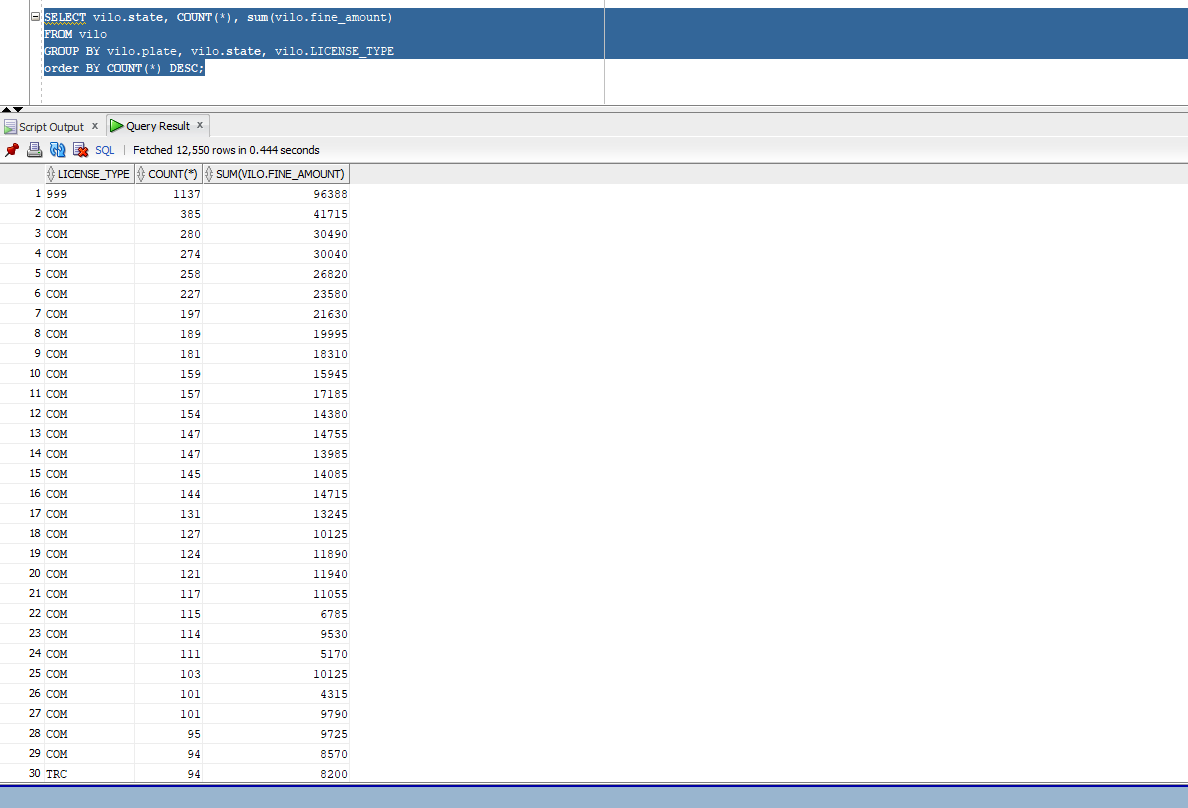
violations is displayed first. Display 1 row for each distinct state.

**SELECT vilo.state, COUNT(\*), sum(vilo.fine\_amount)**

**FROM vilo**

**GROUP BY vilo.plate, vilo.state, vilo.LICENSE\_TYPE**

**order BY COUNT(\*) DESC;**

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**Q6:**

Identify FIRE HYDRANT violations by month. Display 2 columns: month

and number of violations. Order by month**.**

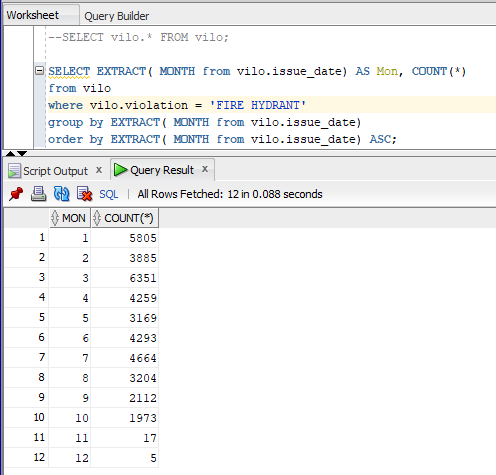
**SELECT EXTRACT( MONTH from vilo.issue\_date) AS Mon, COUNT(\*)**

**from vilo**

**where vilo.violation = 'FIRE HYDRANT'**

**group by Mon**

**order by Mon ASC;**



Q7:

Identify violations for the last 6 months. Dipslay 3 columns: violation,

number of violations and total cost. The most violations will be

dipslayed first. Display 1 row for each distinct violation.

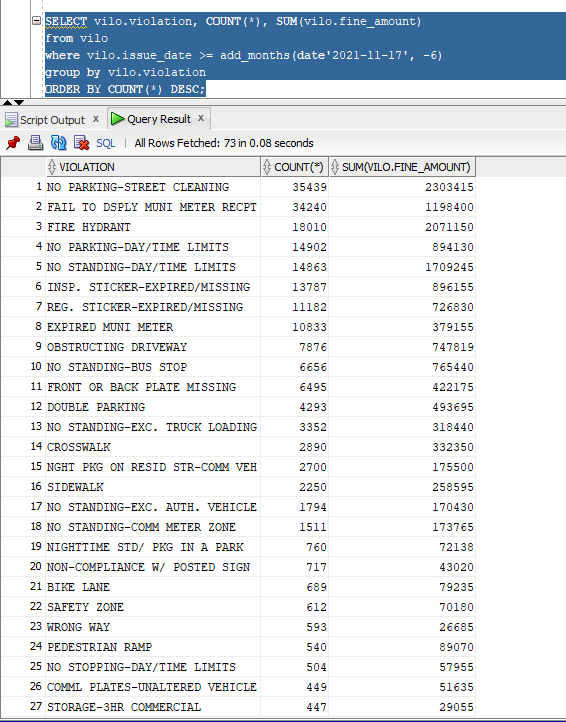
**SELECT vilo.violation, COUNT(\*), SUM(vilo.fine\_amount)**

**from vilo**

**where vilo.issue\_date >= add\_months(date'2021-11-17', -6)**

**group by vilo.violation**

**ORDER BY COUNT(\*) DESC;**



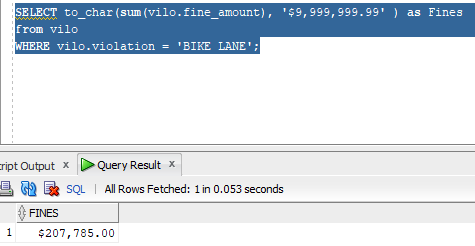
Q8:

Identify total fines for BIKE LANE. Display the total fines.

**SELECT to\_char(sum(vilo.fine\_amount), '$9,999,999.99' ) as Fines**

**from vilo**

**WHERE vilo.violation = 'BIKE LANE';**

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Q9:

Perform an analysis of your own choosing.

Identify violations by precinct.

Display precinct, number of violations, total fines per precinct.

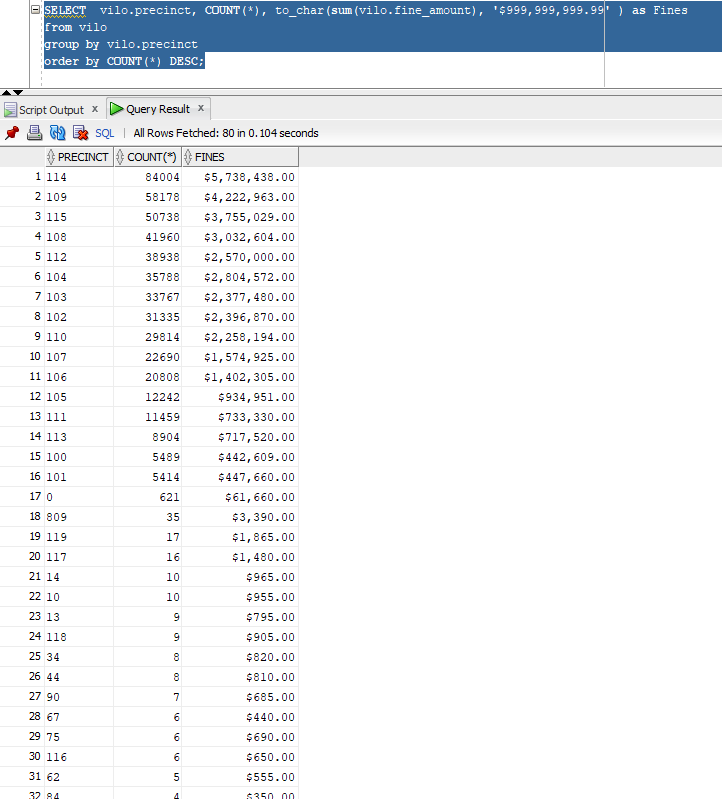
Group by most violations.

**SELECT vilo.precinct, COUNT(\*), to\_char(sum(vilo.fine\_amount), '$999,999,999.99' ) as Fines**

**from vilo**

**group by vilo.precinct**

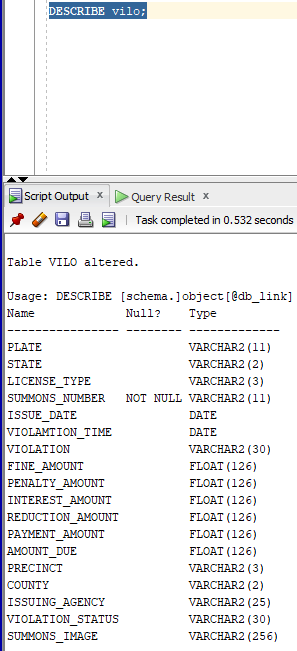
**order by COUNT(\*) DESC;**

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Q10:

Display the structure of ALL tables using SQL Describe.

**DESCRIBE vilo;**



Usage: DESCRIBE [schema.]object[@db\_link]

Name Null? Type

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PLATE VARCHAR2(11)

STATE VARCHAR2(2)

LICENSE\_TYPE VARCHAR2(3)

SUMMONS\_NUMBER NOT NULL VARCHAR2(11)

ISSUE\_DATE DATE

VIOLAMTION\_TIME DATE

VIOLATION VARCHAR2(30)

FINE\_AMOUNT FLOAT(126)

PENALTY\_AMOUNT FLOAT(126)

INTEREST\_AMOUNT FLOAT(126)

REDUCTION\_AMOUNT FLOAT(126)

PAYMENT\_AMOUNT FLOAT(126)

AMOUNT\_DUE FLOAT(126)

PRECINCT VARCHAR2(3)

COUNTY VARCHAR2(2)

ISSUING\_AGENCY VARCHAR2(25)

VIOLATION\_STATUS VARCHAR2(30)

SUMMONS\_IMAGE VARCHAR2(256)

Q11:

Display the version of Oracle.

