Cesar Santiago

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COP4710 Database Systems

Pf. J. Teichert

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT p.course\_number, COUNT(\*)

2 FROM Prereq p

3\* GROUP BY p.course\_number

SQL> define\_editor=vi

SQL> edit

Wrote file afiedt.buf

1 SELECT p.course\_number, COUNT(\*)

2 FROM Prereq p

3\* GROUP BY p.course\_number

SQL> /

COURSE\_NUMBER COUNT(\*)

------------------------ ----------

ACCT3333 1

CHEM3001 1

COSC3320 1

COSC3380 2

COSC5234 1

ENGL1011 1

ENGL3401 1

ENGL3520 1

MATH5501 1

POLY2103 1

POLY5501 1

11 rows selected.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT COUNT(\*)

2 FROM Student

3\* WHERE class = 3

SQL> /

COUNT(\*)

----------

7

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX3\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT class, COUNT(\*)

2 FROM Student

3 WHERE major LIKE 'MATH'

4 GROUP BY class

5\* HAVING COUNT(\*) > 1

SQL> /

CLASS COUNT(\*)

---------- ----------

2

2 3

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX4\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT g.grade, COUNT(\*)

2 FROM Grade g

3 GROUP BY g.grade

4\* ORDER BY g.grade

SQL> /

GRA COUNT(\*)

--- ----------

A 17

B 50

C 36

D 2

F 9

95

6 rows selected.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX5\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT COUNT(t.course\_num)

2 FROM Section t

3 GROUP BY t.course\_num

4\* ORDER BY COUNT(t.course\_num) DESC

SQL> /

COUNT(T.COURSE\_NUM)

-------------------

4

3

3

2

2

2

2

2

1

1

1

COUNT(T.COURSE\_NUM)

-------------------

1

1

1

1

1

1

1

1

1

20 rows selected.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX6\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> CREATE TABLE NOC (name VARCHAR2(20), num\_children NUMBER(8));

Table created.

SQL> INSERT INTO Noc VALUES ('Becky', 40);

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Noc VALUES ('Jennifer', 52)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Noc VALUES ('Sabrina', 67)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Noc VALUES ('Tanny', 77)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Noc VALUES ('Betty', 101)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Noc VALUES ('Jill', 1)

SQL> /

1 row created.

SQL> SELECT COUNT(\*), SUM(num\_children), AVG(num\_children), MIN(num\_children), MAX(num\_children)

2 FROM Noc;

COUNT(\*) SUM(NUM\_CHILDREN) AVG(NUM\_CHILDREN) MIN(NUM\_CHILDREN)

---------- ----------------- ----------------- -----------------

MAX(NUM\_CHILDREN)

-----------------

6 338 56.3333333 1

101

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX7\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> CREATE TABLE WhyTen (name VARCHAR2(20), salaries NUMBER(20), location VARCHAR2(25));

Table created.

SQL> INSERT INTO WhyTen VALUES ('Molly', 20000, '420 High Rd.');

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Mary Jane', 15000, '420 High Rd.')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Gibby', 42000, '420 High Rd.')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Johnnathia', 180000, '21 Jump St.')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Jeff', 0, '21 Jump St.')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Jordan', 50000, '21 Jump St.')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Luke', 323232, '66 Cold St. Hoth')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Leia', 2, '66 Cold St. Hoth')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Anakin', 7, '66 Cold St. Hoth')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO WhyTen VALUES ('Obi-Wan Kenobi', 1000000, '66 Cold St. Hoth')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1 SELECT AVG(salaries)

2 FROM WhyTen

3\* GROUP BY location

SQL> /

AVG(SALARIES)

-------------

25666.6667

330810.25

76666.6667

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX8\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> edit

Wrote file afiedt.buf

1 SELECT t.instructor, COUNT(g.grade)

2 FROM Section t, Grade g

3 WHERE t.section\_ID = g.section\_ID

4 AND g.grade = 'A'

5 GROUP BY t.instructor

6\* ORDER BY g.grade

SQL> /

INSTRUCTOR COUNT(G.GRADE)

------------------------------ --------------

HARDESTY 2

1

RODRIGUEZ 1

HILLARY 2

RAFAELT 6

HERMANO 2

KING 2

ANDERSON 1

8 rows selected.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX9\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> CREATE TABLE Old\_Employees (name VARCHAR2(20), salary NUMBER(20), job VARCHAR2(20));

Table created.

SQL> INSERT INTO Old\_Employees VALUES ('Mary', 1000, 'Programmer');

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Old\_Employees VALUES ('Brenda', 3000, NULL)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Old\_Employees VALUES ('Stephanie', NULL, 'Artist')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Old\_Employees VALUES ('Alice', NULL, NULL)

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Old\_Employees VALUES ('Lindsay', 2000, 'Artist')

SQL> /

1 row created.

SQL> edit

Wrote file afiedt.buf

1\* INSERT INTO Old\_Employees VALUES ('Christina', 500, 'Programmer')

SQL> /

1 row created.

SQL> SELECT \* FROM Old\_Employees;

NAME SALARY

------------------------------------------------------------ ----------

JOB

------------------------------------------------------------

Mary 1000

Programmer

Brenda 3000

Stephanie

Artist

NAME SALARY

------------------------------------------------------------ ----------

JOB

------------------------------------------------------------

Alice

Lindsay 2000

Artist

Christina 500

Programmer

6 rows selected.

SQL> SELECT COUNT(salary), SUM(salary), MAX(salary), MIN(salary), AVG(salary)

2 FROM Old\_Employees;

COUNT(SALARY) SUM(SALARY) MAX(SALARY) MIN(SALARY) AVG(SALARY)

------------- ----------- ----------- ----------- -----------

4 6500 3000 500 1625

SQL> edit

Wrote file afiedt.buf

1 SELECT NVL(COUNT(salary), 0) , NVL(SUM(salary), 0), NVL(MAX(salary), 0), NVL(MIN(salary), 0), NVL(AVG(salary), 0)

2\* FROM Old\_Employees

SQL> /

NVL(COUNT(SALARY),0) NVL(SUM(SALARY),0) NVL(MAX(SALARY),0) NVL(MIN(SALARY),0)

-------------------- ------------------ ------------------ ------------------

NVL(AVG(SALARY),0)

------------------

4 6500 3000 500

1625

SQL> edit

Wrote file afiedt.buf

1 SELECT AVG(salary)

2 FROM Old\_Employees

3\* GROUP BY job

SQL> /

AVG(SALARY)

-----------

750

3000

2000

SQL> edit

Wrote file afiedt.buf

1 SELECT AVG(NVL(salary, 0))

2 FROM Old\_Employees

3\* GROUP BY job

SQL> /

AVG(NVL(SALARY,0))

------------------

750

1500

1000

SQL> edit

Wrote file afiedt.buf

1 SELECT AVG(NVL(salary, 0)), NVL(job, 'no job title')

2 FROM Old\_Employees

3\* GROUP BY job

SQL> /

AVG(NVL(SALARY,0)) NVL(JOB,'NOJOBTITLE')

------------------ ------------------------------------------------------------

750 Programmer

1500 no job title

1000 Artist

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*EX10\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SQL> SELECT t.instructor, COUNT(g.grade)

2 FROM Section t, Grade g

3 WHERE t.section\_ID = g.section\_ID

4 AND g.grade = 'A'

5 GROUP BY t.instructor

6\* ORDER BY COUNT(g.grade) DESC

SQL> /

INSTRUCTOR COUNT(G.GRADE)

------------------------------ --------------

RAFAELT 6

HARDESTY 2

HILLARY 2

KING 2

HERMANO 2

1

ANDERSON 1

RODRIGUEZ 1

8 rows selected.