Cesar A. Santiago

COP4710 Database Systems

Pf. Teichert

April 4, 2018

7-1

SQL> @sql7-1A

SELECT s.stno

FROM Student s

WHERE s.stno

IN (

SELECT g.student\_number

FROM Grade g

WHERE (g.grade = 'A' OR g.grade = 'B')

AND g.section\_id

IN (

SELECT t.section\_id

FROM Section t

WHERE t.semester = 'FALL'

)

)

STNO

----------

129

123

13

121

20

14

2

24

8

3

15

STNO

----------

122

12 rows selected.

SQL> @sql7-1B

1 SELECT s.stno

2 FROM Student s, Grade g, Section t

3 WHERE s.stno = g.student\_number

4 AND (g.grade = 'A' OR g.grade = 'B')

5 AND g.section\_id = t.section\_id

6\* AND t.semester = 'FALL'

SQL> /

STNO

----------

13

8

3

20

3

14

3

8

15

3

122

STNO

----------

129

121

123

24

3

2

17 rows selected.

7-2

SQL> @sql7-2

SELECT s.sname, s.stno, t.course\_num, g.grade

FROM Student s, Grade g, Section t

WHERE s.stno = g.student\_number

AND g.section\_id = t.section\_id

AND t.course\_num LIKE 'ACCT%'

/

SNAME STNO

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

COURSE\_NUM GRA

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

Brenda 8

ACCT2220 B

Brenda 8

ACCT3464 C

Kelly 13

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Donald 20

ACCT3464 C

Chris 24

ACCT3333

Chris 24

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Lynette 34

ACCT3333

Susan 49

ACCT3333

Susan 49

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Monica 62

ACCT3464 C

Bill 70

ACCT3464 C

Hillary1 121

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Hillary1 121

ACCT3464 B

Phoebe 122

ACCT2220 B

Phoebe 122

ACCT3464 B

SNAME STNO

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

COURSE\_NUM GRA

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

Holly 123

ACCT3333

Holly 123

ACCT2220 B

Holly 123

ACCT3464 B

SNAME STNO

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

COURSE\_NUM GRA

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

Sadie 125

ACCT3333

Sadie 125

ACCT2220 B

Sadie 125

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Jessica 126

ACCT3333

Jessica 126

ACCT2220 B

Jessica 126

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Steve 127

ACCT3333

Steve 127

ACCT2220 B

Steve 127

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Brad 128

ACCT2220 F

Brad 128

ACCT3464 F

Cedric 129

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Cedric 129

ACCT3464 A

Alan 130

ACCT2220 C

Alan 130

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Losmith 151

ACCT3333

Genevieve 153

ACCT3333

Lindsay 155

ACCT3333

SNAME STNO

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

COURSE\_NUM GRA

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

Stephanie 157

ACCT3333

Thornton 158

ACCT3333

Lionel 163

ACCT3333

SNAME STNO

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

COURSE\_NUM GRA

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

Benny 161

ACCT3333

Gus 160

ACCT3333

Zelda 5

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Zelda 5

ACCT3464 C

Mario 7

ACCT2220 B

Mario 7

ACCT3464 C

SNAME STNO

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

COURSE\_NUM GRA

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

Romona 9

ACCT2220 F

Romona 9

ACCT3464 F

Ken 6

ACCT2220 B

SNAME STNO

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

COURSE\_NUM GRA

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

Ken 6

ACCT3464 C

49 rows selected.

7-3

SQL> @sql7-3

SELECT s.sname, d.dname

FROM Student s, Department d

WHERE s.class = 2

AND s.major = d.dcode

/

SNAME

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

DNAME

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

Sebastian

Accounting

Brenda

Computer Science

Alan

Computer Science

SNAME

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

DNAME

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

Cedric

English

Smithly

English

Reva

Mathematics

SNAME

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

DNAME

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

Sadie

Mathematics

Jake

Mathematics

Harley

Political Science

SNAME

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

DNAME

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

Jessica

Political Science

10 rows selected.

7-4

SQL> @sql7-4

SELECT d.dname

FROM Student s, Department d, Grade g, Section t

WHERE s.major = d.dcode

AND (

s.stno = g.student\_number

AND g.section\_id = t.section\_id

AND (t.course\_num LIKE '\_\_\_\_3%' OR t.course\_num LIKE '\_\_\_\_4%')

)

DNAME

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

English

Computer Science

Computer Science

Computer Science

Computer Science

Computer Science

Computer Science

Political Science

Mathematics

Mathematics

Computer Science

DNAME

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

Computer Science

Computer Science

English

English

Mathematics

Mathematics

Computer Science

Computer Science

Computer Science

Mathematics

Mathematics

DNAME

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

Mathematics

Computer Science

Political Science

Accounting

Accounting

Accounting

Accounting

Accounting

Accounting

Computer Science

Political Science

DNAME

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

Political Science

Political Science

English

English

English

English

Mathematics

Mathematics

Political Science

Political Science

Computer Science

DNAME

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

Computer Science

English

English

Political Science

Political Science

Political Science

Political Science

Mathematics

Mathematics

Mathematics

Mathematics

DNAME

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

Political Science

Political Science

Political Science

Political Science

English

English

English

English

Computer Science

Computer Science

English

DNAME

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English

Computer Science

Computer Science

English

Political Science

Computer Science

Computer Science

Computer Science

Computer Science

English

English

DNAME

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English

English

Political Science

Political Science

Political Science

Political Science

Accounting

Accounting

Accounting

Accounting

Accounting

DNAME

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

Accounting

Accounting

Accounting

English

English

English

English

Accounting

Accounting

Accounting

Accounting

DNAME

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

Chemistry

Chemistry

Mathematics

Mathematics

Chemistry

Chemistry

109 rows selected.

7-5

SQL> @sql7-5

SELECT c.course\_name, c.course\_number

FROM Course c, Prereq p

WHERE c.course\_number = p.course\_number

/

`

COURSE\_NAME

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

COURSE\_NUMBER

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

MANAGERIAL FINANCE

ACCT3333

ORGANIC CHEMISTRY

CHEM3001

DATA STRUCTURES

COSC3320

COURSE\_NAME

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

COURSE\_NUMBER

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

DATABASE

COSC3380

DATABASE

COSC3380

ADA - INTRODUCTION

COSC5234

COURSE\_NAME

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

COURSE\_NUMBER

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

ENGLISH COMP II

ENGL1011

FUND. TECH. WRITING

ENGL3401

WRITING FOR NON MAJO

ENGL3520

COURSE\_NAME

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

COURSE\_NUMBER

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

MATH ANALYSIS

MATH5501

AMERICAN GOVERNMENT

POLY2103

POLITICS OF CUBA

POLY5501

12 rows selected.

SQL> @sql7-5B

SELECT c.course\_name, c.course\_number

FROM Course c, Prereq p

WHERE p.prereq = c.course\_number

/

COURSE\_NAME

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

COURSE\_NUMBER

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

ACCOUNTING II

ACCT2220

INTRO TO CHEMISTRY

CHEM2001

INTRO TO COMPUTER SC

COSC1310

COURSE\_NAME

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

COURSE\_NUMBER

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

DATA STRUCTURES

COSC3320

DATA STRUCTURES

COSC3320

ENGLISH COMP I

ENGL1010

COURSE\_NAME

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

COURSE\_NUMBER

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

ENGLISH COMP II

ENGL1011

ENGLISH COMP II

ENGL1011

ALGEBRA

MATH2333

COURSE\_NAME

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

COURSE\_NUMBER

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

DISCRETE MATHEMATICS

MATH2410

AMERICAN CONSTITUTIO

POLY1201

SOCIALISM AND COMMUN

POLY4103

12 rows selected.

7-6

SQL> @sql7-6

SELECT t.instructor

FROM Section t

WHERE t.course\_num IN (

SELECT c.course\_number

FROM Course c

WHERE c.credit\_hours > 3

)

/

INSTRUCTOR

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

JONES

ANDERSON

RAFAELT

ANDERSON

KNUTH

SCHMIDT

6 rows selected.

SQL> @sql7-6B

SELECT t.instructor

FROM Section t

WHERE t.course\_num NOT IN (

SELECT c.course\_number

FROM Course c

WHERE c.credit\_hours <= 3

)

/

INSTRUCTOR

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

JONES

ANDERSON

RAFAELT

ANDERSON

KNUTH

SCHMIDT

6 rows selected.

7-7

SQL> CREATE TABLE Secretary (

2 dcode CHAR(4),

3 name VARCHAR2(20)

4 );

Table created.

SQL> EDIT

1 INSERT INTO Secretary (dcode, name)

2\* VALUES ('ACCT', 'Sally')

SQL> /

1 row created.

SQL> EDIT

1 INSERT INTO Secretary (dcode, name)

2\* VALUES ('COSC', 'Chris')

SQL> /

1 row created.

SQL> EDIT

1 INSERT INTO Secretary (dcode, name)

2\* VALUES ('ENGL', 'Maria')

SQL> /

1 row created.

SQL> @sql7-7a

SELECT d.dname

FROM Department d

WHERE d.dcode IN(

SELECT y.dcode

FROM Secretary y

)

/

DNAME

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

Accounting

Computer Science

English

SQL> @sql7-7b

SELECT d.dname

FROM Department d

WHERE d.dcode NOT IN (

SELECT y.dcode

FROM Secretary y

)

/

DNAME

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

Art

Chemistry

Mathematics

Political Science

SQL> INSERT INTO Secretary

2 VALUES (NULL, 'Brenda');

1 row created.

SQL> @sql7-7a

SELECT d.dname

FROM Department d

WHERE d.dcode IN(

SELECT y.dcode

FROM Secretary y

)

/

DNAME

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

Accounting

Computer Science

English

SQL> @sql7-7b

SELECT d.dname

FROM Department d

WHERE d.dcode NOT IN (

SELECT y.dcode

FROM Secretary y

)

/

no rows selected

SQL> EDIT sql7-7b

SQL> @sql7-7b

SELECT d.dname

FROM Department d

WHERE d.dcode NOT IN (

SELECT y.dcode

FROM Secretary y

WHERE y.dcode IS NOT NULL

)

/

DNAME

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

Art

Chemistry

Mathematics

Political Science