Joe Skinner

CSC 424

Lab 7

1)

USE university;

CREATE VIEW CSC211 AS

SELECT cnum,name

FROM course

WHERE cnum IN

(SELECT sec1.cnum FROM section sec1

WHERE EXISTS

(SELECT r1.secnum FROM report r1

WHERE sec1.secnum = r1.secnum AND sec1.term = r1.term AND r1.snum IN

(SELECT r2.snum

FROM report r2

WHERE EXISTS

(SELECT \* FROM section sec2

WHERE sec2.cnum = 'CSC211' AND sec2.secnum = r2.secnum AND sec2.term = r2.term))));

|  |  |
| --- | --- |
| cnum | name |
| CSC211 | Data Structures |
| CSC330 | Topics in Information Systems |
| CSC424 | Introduction to Database Systems |
| CSC733 | Natural Language Processing |
| GOV100 | Introduction to Political Science |
| MTH153 | Introduction to Discrete Mathematics |

USE university;

CREATE VIEW CSC330 AS

SELECT

cnum,name

FROM

course

WHERE cnum IN

(SELECT sec1.cnum FROM section sec1

WHERE EXISTS

(SELECT r1.secnum FROM report r1

WHERE sec1.secnum = r1.secnum AND sec1.term = r1.term AND r1.snum IN

(SELECT r2.snum

FROM report r2

WHERE EXISTS

(SELECT \* FROM section sec2

WHERE sec2.cnum = 'CSC330' AND sec2.secnum = r2.secnum AND sec2.term = r2.term))));

|  |  |
| --- | --- |
| cnum | name |
| CSC211 | Data Structures |
| CSC330 | Topics in Information Systems |
| CSC424 | Introduction to Database Systems |
| CSC733 | Natural Language Processing |
| GOV100 | Introduction to Political Science |
| MTH153 | Introduction to Discrete Mathematics |

USE university;

SELECT cs211.cnum, cs211.name, cs330.cnum, cs330.name

FROM csc211 AS cs211

LEFT JOIN csc330 AS cs330 ON cs211.cnum = cs330.cnum AND cs211.name = cs330.name

|  |  |  |  |
| --- | --- | --- | --- |
| cnum | name | cnum | name |
| CSC211 | Data Structures | CSC211 | Data Structures |
| CSC330 | Topics in Information Systems | CSC330 | Topics in Information Systems |
| CSC424 | Introduction to Database Systems | CSC424 | Introduction to Database Systems |
| CSC733 | Natural Language Processing | CSC733 | Natural Language Processing |
| GOV100 | Introduction to Political Science | GOV100 | Introduction to Political Science |
| MTH153 | Introduction to Discrete Mathematics | MTH153 | Introduction to Discrete Mathematics |

2)

USE university;

CREATE VIEW first AS

SELECT

p1.pnum, p1.lastname AS professor,

s1.cnum AS courseTaken, s1.pnum AS teacherNum,

r1.secnum, r1.term, r1.grade AS profGrade

FROM

prof AS p1, section AS s1, report AS r1

WHERE

p1.pnum = r1.snum

AND r1.grade = 'A'

AND s1.secnum = r1.secnum

AND s1.term = r1.term

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| pnum | professor | courseTaken | teacherNum | secnum | term | profGrade |
| 204896874 | Domingo | CSC211 | 837524163 | 5387 | S02 | A |
| 345098765 | Ali | CSC211 | 987654321 | 2597 | F07 | A |
| 345098765 | Ali | CSC733 | 987654321 | 7777 | F02 | A |
| 987654321 | Clinton | GOV100 | 115327466 | 2804 | S04 | A |
| 987654321 | Clinton | CSC424 | 987654322 | 4190 | F09 | A |
| 987654321 | Clinton | CSC211 | 837524163 | 5387 | S02 | A |

CREATE VIEW second AS

SELECT st2.snum,st2.lastname AS student\_name, s2.cnum, s2.secnum,s2.term, p2.pnum, r2.grade

FROM first AS p2

JOIN section AS s2 ON p2.courseTaken=s2.cnum

JOIN report AS r2 ON s2.secnum=r2.secnum

JOIN student AS st2 ON r2.snum=st2.snum

WHERE r2.grade='A' AND s2.term=r2.term AND s2.pnum=p2.pnum

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| snum | student\_name | cnum | secnum | term | pnum | grade |
| 111222333 | Belaief | CSC211 | 2597 | F07 | 987654321 | A |
| 345098765 | Ali | CSC211 | 2597 | F07 | 987654321 | A |

CREATE VIEW third AS

SELECT cnum, pnum FROM second

GROUP BY cnum, pnum

HAVING COUNT(\*) >= 2

|  |  |
| --- | --- |
| cnum | pnum |
| CSC211 | 987654321 |

CREATE VIEW fourth AS

SELECT DISTINCT s.snum AS secondProfNum, s.student\_name AS secondProfName, s.cnum, st.snum AS thirdStudentNum, st.lastname AS thirdStudentName, r.grade,r.secnum,r.term

FROM second s, student st, report r, section s1, first f

WHERE s1.pnum = s.snum AND r.grade = 'A' AND s1.cnum = s.cnum AND st.snum = r.snum AND s1.term = r.term

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| secondProfNum | secondProfName | cnum | thirdStudentNum | thirdStudentName | grade | secnum | term |
| 345098765 | Ali | CSC211 | 798783733 | Lincoln | A | 9023 | S08 |

SELECT DISTINCT f.pnum AS firstNum, f.professor AS firstName, s.snum AS secondNum, f1.secondProfName AS secondName, f1.cnum AS classNum, f1 .thirdStudentNum AS thirdNum, f1.thirdStudentName AS thirdName, f1.grade, f1.secnum, f1.term

FROM first AS f, second AS s, third AS t, fourth AS f1

WHERE s.snum = f1.secondProfNum AND f.pnum=t.pnum AND f.courseTaken=s.cnum

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| firstNum | firstName | secondNum | secondName | classNum | thirdNum | thirdName | grade | secnum | term |
| 987654321 | Clinton | 345098765 | Ali | CSC211 | 798783733 | Lincoln | A | 9023 | S08 |