

## TERCERA ETAPA

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### Chapter 7

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```
rem [Rischert, 2004,358]

SELECT last_name, first_name
FROM student
WHERE last_name = 'Crocitto'
AND first_name = 'Fred';
```

```
rem [Rischert, 2004,376]

SELECT first_name, last_name
FROM student
WHERE registration_date =
(SELECT MIN(registration_date)
FROM student);
```

```
rem [Rischert, 2004,376]

SELECT c.description, s.section_no, c.cost, s.capacity
FROM course c, section s
WHERE c.course_no = s.course_no
AND s.capacity <=
(SELECT AVG(capacity)
FROM section)
AND c.cost =
(SELECT MIN(cost)
```

```
FROM course);
```

```
rem [Rischert, 2004,377]
```

```
SELECT course_no, SUM(capacity)
```

```
FROM section
```

```
GROUP BY course_no
```

```
HAVING SUM(capacity) <
```

```
(SELECT AVG(capacity)
```

```
FROM section);
```

```
rem [Rischert, 2004,377]
```

```
SELECT course_no, SUM(capacity)
```

```
FROM section
```

```
GROUP BY course_no;
```

```
rem [Rischert, 2004,377]
```

```
SELECT AVG(capacity)
```

```
FROM section;
```

```
rem [Rischert, 2004,377]
```

```
SELECT student_id, COUNT(*)
```

```
FROM enrollment
```

```
GROUP BY student_id
```

```
HAVING COUNT(*) =
```

```
(SELECT MAX(COUNT(*))
```

```
FROM enrollment
```

```
GROUP BY student_id);
```

rem [Rischert, 2004,378]

```
SELECT COUNT(*)  
FROM enrollment  
GROUP BY student_id;
```

rem [Rischert, 2004,379]

```
SELECT course_no, description  
FROM course  
WHERE course_no IN  
(SELECT course_no  
FROM section  
WHERE instructor_id IN  
(SELECT instructor_id  
FROM instructor  
WHERE last_name = 'Hanks'  
AND first_name = 'Fernand'));
```

rem [Rischert, 2004,380]

```
SELECT c.course_no, c.description  
FROM course c, section s, instructor i  
WHERE c.course_no = s.course_no  
AND s.instructor_id = i.instructor_id  
AND i.last_name = 'Hanks'  
AND i.first_name = 'Fernand';
```

rem [Rischert, 2004,381]

```
SELECT section_id, capacity  
FROM section  
WHERE (section_id, capacity) IN
```

```
(SELECT section_id, COUNT(*)  
FROM enrollment  
GROUP BY section_id);
```

```
rem [Rischert, 2004,386]  
SELECT instructor_id, last_name, first_name, zip  
FROM instructor i  
WHERE EXISTS  
(SELECT 'X'  
FROM section  
WHERE i.instructor_id = instructor_id);
```

```
rem [Rischert, 2004,386]  
SELECT instructor_id, last_name, first_name, zip  
FROM instructor  
WHERE instructor_id IN  
(SELECT instructor_id  
FROM section);
```

```
rem [Rischert, 2004,388]  
SELECT section_id, capacity  
FROM section  
WHERE course_no = 20;
```

```
rem [Rischert, 2004,391]  
SELECT section_id, course_no  
FROM section s  
WHERE 2 >  
(SELECT COUNT(*)
```

```
FROM enrollment  
WHERE section_id = s.section_id);
```

```
rem [Rischert, 2004,393]  
  
SELECT section_id  
FROM section  
WHERE section_id NOT IN  
(SELECT section_id  
FROM enrollment);
```

```
rem [Rischert, 2004,397]  
  
SELECT course_no, section_id  
FROM section s  
WHERE NOT EXISTS  
(SELECT NULL  
FROM enrollment  
WHERE s.section_id = section_id)  
ORDER BY course_no;
```

```
rem [Rischert, 2004,417]  
  
SELECT student_id, section_id, numeric_grade  
FROM grade g  
WHERE grade_type_code = 'FI'  
AND numeric_grade > ALL  
(SELECT numeric_grade  
FROM grade  
WHERE grade_type_code = 'HM'  
AND g.section_id = section_id  
AND g.student_id = student_id);
```

```
rem [Rischert, 2004,418]

SELECT student_id, section_id, grade_type_code,

MAX(numeric_grade) max, MIN(numeric_grade) min

FROM grade

WHERE student_id = 179

AND section_id = 116

AND grade_type_code IN ('HM', 'FI')

GROUP BY student_id, section_id, grade_type_code;
```

```
rem [Rischert, 2004,420]

SELECT student_id, section_id, grade_type_code,

numeric_grade

FROM grade

WHERE student_id = 102

AND section_id = 89

AND grade_type_code IN ('HM', 'FI');
```

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## Chapter 8

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```
rem [Rischert, 2004,425]

SELECT first_name, last_name, phone, COUNT(*)

FROM student

GROUP BY first_name, last_name, phone

HAVING COUNT(*) > 1;
```



rem [Rischert, 2004,426]

```
SELECT instructor_id id, first_name, last_name, phone  
  
FROM instructor  
  
UNION  
  
SELECT student_id, first_name, last_name, phone  
  
FROM student  
  
ORDER BY 3;
```

rem [Rischert, 2004,427]

```
SELECT first_name, last_name,  
  
'Instructor' "Type"  
  
FROM instructor  
  
UNION  
  
SELECT first_name, last_name,  
  
'Student'  
  
FROM student;
```

rem [Rischert, 2004,429]

```
SELECT first_name, last_name,  
  
'Instructor' "Type"  
  
FROM instructor  
  
UNION  
  
SELECT first_name, last_name,  
  
'Student'  
  
FROM student;
```

rem [Rischert, 2004,430]

```
SELECT created_by
FROM enrollment
UNION
SELECT created_by
FROM grade
UNION
SELECT created_by
FROM grade_type
UNION
SELECT created_by
FROM grade_conversion;
```

rem [Rischert, 2004,432]

```
SELECT DISTINCT salutation, CAST(NULL AS NUMBER),
state, z.created_date
FROM instructor i, zipcode z
WHERE i.zip = z.zip
UNION ALL
SELECT salutation, COUNT(*),
state, TO_DATE(NULL)
FROM student s, zipcode z
WHERE s.zip = z.zip
GROUP BY salutation, state;
```



```
rem [Rischert, 2004,440]
SELECT course_no, description
FROM course
MINUS
SELECT s.course_no, c.description
FROM section s, course c
WHERE s.course_no = c.course_no;
```

```
rem [Rischert, 2004,441]
SELECT course_no, description
FROM course c
WHERE NOT EXISTS
(SELECT '*'
FROM section
WHERE c.course_no = course_no);
```

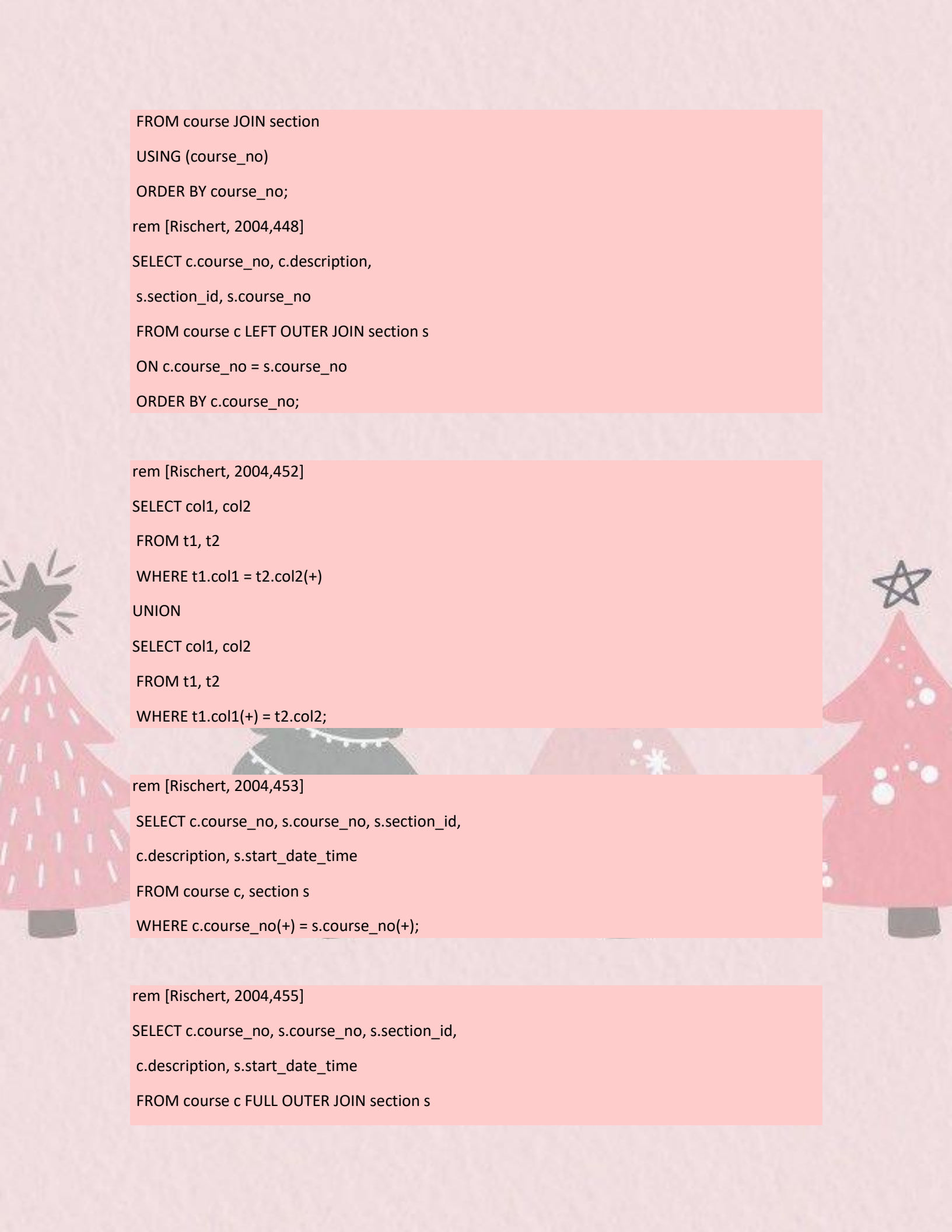
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## Chapter 9

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```
rem [Rischert, 2004,442]
SELECT zip
FROM instructor
INTERSECT
SELECT zip
FROM student;
```

```
rem [Rischert, 2004,447]
SELECT course_no, description,
section_id
```



```
FROM course JOIN section
USING (course_no)
ORDER BY course_no;
rem [Rischert, 2004,448]
SELECT c.course_no, c.description,
s.section_id, s.course_no
FROM course c LEFT OUTER JOIN section s
ON c.course_no = s.course_no
ORDER BY c.course_no;
```

```
rem [Rischert, 2004,452]
SELECT col1, col2
FROM t1, t2
WHERE t1.col1 = t2.col2(+)
UNION
SELECT col1, col2
FROM t1, t2
WHERE t1.col1(+) = t2.col2;
```

```
rem [Rischert, 2004,453]
SELECT c.course_no, s.course_no, s.section_id,
c.description, s.start_date_time
FROM course c, section s
WHERE c.course_no(+) = s.course_no(+);
```

```
rem [Rischert, 2004,455]
SELECT c.course_no, s.course_no, s.section_id,
c.description, s.start_date_time
FROM course c FULL OUTER JOIN section s
```

```
ON c.course_no = s.course_no;
```

```
rem [Rischert, 2004,456]
```


```
SELECT course_no, description  
FROM course  
WHERE prerequisite = 350;
```

```
rem [Rischert, 2004,457]
```

```
SELECT course_no cno,  
description,  
prerequisite prereq,  
location loc, section_id  
FROM course LEFT OUTER JOIN section  
USING (course_no)  
WHERE prerequisite = 350;
```

```
rem [Rischert, 2004,460]
```

```
SELECT c.course_no cno, s.course_no sno,  
c.description,  
c.prerequisite prereq,  
s.location loc, s.section_id  
FROM (SELECT *  
FROM course  
WHERE prerequisite = 350) c LEFT OUTER JOIN  
(SELECT * FROM section  
WHERE location = 'L507') s  
ON (c.course_no = s.course_no);
```



```
rem [Rischert, 2004,461]
```

```
SELECT c.course_no, c.description  
FROM course c, section s  
WHERE c.course_no = s.course_no(+)  
AND s.course_no IS NULL;
```

```
rem [Rischert, 2004,462]
```

```
SELECT city, state, zip,  
(SELECT COUNT(*)  
FROM student s  
WHERE s.zip = z.zip) AS student_count  
FROM zipcode z  
WHERE state = 'CT';
```

```
rem [Rischert, 2004,471]
```

```
SELECT student_id, section_id, numeric_grade  
FROM grade g  
WHERE grade_type_code = 'FI'  
AND section_id = 86  
AND numeric_grade < ANY  
(SELECT numeric_grade  
FROM grade  
WHERE grade_type_code = 'MT'  
AND g.section_id = section_id  
AND g.student_id = student_id);
```

rem [Rischert, 2004,472]

```
SELECT DISTINCT a.student_id, a.last_name,  
a.street_address  
FROM student a, student b  
WHERE a.street_address = b.street_address  
AND a.zip = b.zip  
AND a.student_id <> b.student_id  
ORDER BY a.street_address;
```

rem [Rischert, 2004,474]

```
SELECT c1.course_no,  
SUBSTR(c1.description, 1,15) course_descr,  
C1.prerequisite,  
SUBSTR(c2.description,1,15) pre_req_descr  
FROM course c1, course c2  
WHERE c1.prerequisite = c2.course_no(+)  
ORDER BY 1;
```