Inf 202 Introduction to Data and Databases (Spring 2010)

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Outer Joins

Figure: Left and Right Outer Joins
Example 1: Left Outer Join Query: For each project (whether employees are assigned to it or not), find the hours worked by employees as well as their employee numbers and hours worked on the project

SELECT Name, EmployeeNumber, HoursWorked
FROM PROJECT LEFT JOIN ASSIGNMENT
    ON PROJECT.ProjectID = ASSIGNMENT.PROJECTID;
Example 1: Right Outer Join

Query: For each employee (whether assigned to a project or not), find the employee first name, last name, hours worked as well as the names of the project worked on

```
SELECT Name, FirstName, LastName, HoursWorked
FROM (PROJECT as P JOIN ASSIGNMENT AS A
     ON P.ProjectID = A.ProjectID)
     RIGHT JOIN EMPLOYEE AS E
     ON A.EmployeeNumber = E.EmployeeNumber
ORDER BY P.ProjectID, A.EmployeeNumber;
```
Update Query: *Update the phone number of employee number 11 by 360-281-8810*

```sql
UPDATE EMPLOYEE
SET Phone = '360-281-8810'
WHERE EmployeeNumber = 11;
```

**NOTE:** If the *WHERE* clause is omitted, the phone numbers for ALL employees are set to this number.
Query: *Delete all projects in the marketing department*

```
DELETE
FROM PROJECT
WHERE Department = 'marketing';
```

**NOTE:** If you forget the *WHERE* clause, the query will delete ALL rows in the PROJECT table, and may cascade into deleting all rows in the ASSIGNMENT table as well.
DROP TABLE ASSIGNMENT

This is a part of DDL part of SQL

A table will not be dropped if it jeopardises the referential integrity of a database. Since the ASSIGNMENT table contains a foreign key for employee number, you would have to drop the ASSIGNMENT table before you can DROP EMPLOYEE table.