Due: IF YOU HAVE ACCESS TO AN SQL SYSTEM Mon Sep. 12, 2011. Otherwise: Later.

Hands-on assignment

You will create a few relations in a database, insert a few tuples in each relation, and write and execute some SQL queries.

Use SQL for all tasks: Table creation, inserting data, and querying. Put all commands and queries in one or more files, instead of typing them into DB systems.

Create the following tables:

<table>
<thead>
<tr>
<th>Table</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENTS</td>
<td>id, name, dept</td>
</tr>
<tr>
<td>COURSES</td>
<td>cNo, title, credits</td>
</tr>
<tr>
<td>TRANSCRIPTS</td>
<td>id, cNo, grade</td>
</tr>
</tbody>
</table>

Use appropriate types for the attributes. Declare appropriate keys for each table. Declare referential integrity (foreign key constraints) as appropriate.

Insert a few tuples into each table.

Write and execute the following SQL queries:

Q1. List all students (ids and names) in “Computer Science” department.

Q2. List all courses (cNos and titles) “F. Flintstone” has taken, and passed with a grade of “A”.

Q3. List students in “Computer Science” department, and for each student list the total credit-hours the student has taken (hence, the output table has three columns: id, name, total_credits).

Output: Print all SQL statements for table creation and data insertion. Print your tables. Print the queries, and for each query, print the result.