CSCD 327 Lab #6 (20 points)
Due: February 19, 2014

Section 1: Database Update (2 points for each question)

Create a new database named as "*YourUserName_University*", and run the script database_university.sql posted on Canvas. Use "*YourUserName_university*" for the following exercises.

Write the following queries in BOTH RA and SQL statements, respectively. Include RA expressions and SQL statements in your submission.

1. Increase the salary of each instructor in the Comp. Sci. department by 10%.

2. Delete all courses that have never been offered (i.e., do not occur in the *section* relation).

3. Insert every student whose *tot_cred* attribute is greater than 100 as an instructor in the same department, with a salary of $10,000.

4. Enroll every student in the Comp. Sci. department into CS-001 course, Section 1 of Fall 2009.

5. Delete enrollments in CS-001 course, Section 1 of Fall 2009 where the student's name is Zhang.

6. Delete all *takes* tuples corresponding to any section of any course with the word "database" as a part of the title; ignore case when matching the word with the title.

7. Update *Tot_Cred* in *student* relation. When you look at the *student* relation you will find that the *tot_cred* field provides incorrect information. Now you are going to update this field with the **real total credits** the students received. Note that if a student got an *F* or the grade is *null*, he/she got 0 credits for that course. Display the *student* table after the update.

Section 2: DDL with Constraints (1 point for each question)

Create a new database named as "*YourUsername_Constraints*", and use it for the following exercises.

8. Modify the following SQL command so that the Rep_ID column is the PRIMARY KEY for the table and the default value of Y is assigned to the Comm column. (The Comm column indicates whether the sales representative earns commission.)

```
CREATE TABLE STORE_REPS (
(Rep_ID INT(5),
Last VARCHAR(15),
First VARCHAR(10),
Comm CHAR(1) );
```

9. Change the STORE_REPS table so that NULL values CANNOT be entered in the name columns (First and Last).

10. Create a table named BOOK_STORES to include the columns listed in the following chart:

Column Name	Datatype	Constraint Comments
Store_ID	INT(8)	PRIMARY KEY column
Name	VARCHAR(30)	Should be UNIQUE and NOT NULL
Contact	VARCHAR(20)	
Rep_ID	INT(5)	

11. Add a constraint to make sure the Rep_ID value entered in the BOOK_STORES table is a valid value contained In the STORE_REPS table.

12. Change the constraint created in the previous question so that associated rows of the BOOK_STORES table are deleted automatically if a row in the STORE_REPS table is deleted.

13. Create a table named REP_CONTRACTS containing the columns listed in the following chart. A composite PRIMARY KEY constraint including the Rep_ID, Store_ID, and Quarter columns should be assigned. In addition, FOREIGN KEY constraints should be assigned to both the Rep_ID and Store_ID columns.

Column Name	DataType
Store_ID	INT(8)
Name	INT(5)
Quarter	CHAR(3)
Rep_ID	INT(5)