**Insert-Update-Delete Exercises:**

3.12 Write the following queries in SQL, using the university schema.

a. Create a new course “CS-001”, titled “Weekly Seminar”, with 0 credits.

**INSERT INTO course(course\_id, title, dept\_name, credits)**

**VALUES ('CS-001', 'Weekly Seminar', 'Comp. Sci.', 0);**

b. Create a section of this course in Fall 2009, with section id of 1.

**INSERT INTO section(course\_id, sec\_id, semester, year)**

**VALUES ('CS-001', '1', 'Fall', 2009);**

c. Enroll every student in the Comp. Sci. department in the above section.

**INSERT INTO takes(ID, course\_id, sec\_id, semester, year)**

**SELECT ID, 'CS-001', '1', 'Fall', 2009**

**FROM student**

**WHERE dept\_name = 'Comp. Sci.';**

d. Delete enrollments in the above section where the student’s name is Chavez.

**DELETE FROM takes**

**WHERE (course\_id = 'CS-001') AND (sec\_id = ’1’) AND (semester = 'Fall') AND (year = 2009) AND (ID in (SELECT ID FROM student WHERE name =’Chavez’));**

e. Delete the course CS-001. What will happen if you run this delete statement without ﬁrst deleting offerings (sections) of this course?

**DELETE FROM takes**

**WHERE course\_id = 'CS-001'**

**No error is thrown if you run statement without first deleting offerings**

f. 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.

**DELETE FROM takes**

**WHERE course\_id in ( SELECT course\_id FROM course WHERE title LIKE '%database%')**

3.14 Consider the following insurance database, where the primary keys are underlined. Construct the following SQL queries for this relational database.

a. Find the number of accidents in which the cars belonging to “John Smith” were involved.

**SELECT count(distinct report-number)**

**FROM participated**

**WHERE driver-id in (SELECT driver-id**

**FROM person**

**WHERE (name = ‘John Smith’);**

b. Update the damage amount for the car with license number “AABB2000” in the accident with report number “AR2197” to $3000.

**UPDATE participated**

**SET damage-amount = 3000**

**WHERE report-number = “AR2197”AND driver-id in (SELECT driver-id**

**FROM owns**

**WHERE (license = ‘AABB2000’);**

***Insurance database:***

***person (driver-id, name, address)***

***car (license, model, year)***

***accident (report-number, date, location)***

***owns (driver-id, license)***

***participated (driver-id, car, report-number, damage\_amount)***

3.17 Consider the following database. Give an expression in SQL for each of the following queries.

a. Give all employees of First Bank Corporation a 10 percent raise.

**UPDATE works**

**SET salary = (salary \* 1.1)**

**WHERE company\_name = ‘Small Bank Corporation’;**

b. Give all managers of First Bank Corporation a 10 percent raise.

**UPDATE works**

**SET salary = (salary \* 1.1)**

**WHERE employee\_name in (SELECT employee\_name FROM manages) AND company\_name = ‘Small Bank Corporation’**

c. Delete all tuples in the works relation for employees of Small Bank Corporation.

**DELETE FROM works**

**WHERE company\_name = ‘Small Bank Corporation’;**

***Employee Database:***

***employee (employe\_ name, street, city)***

***works (employe\_ name, company\_name, salary)***

***company (company\_name, city)***

***manages (employee\_name, manager\_name)***