Homework 3
I-Stop Database – Part 2

Due Date: May 23, 2016
Cutoff Date: May 23, 2016

Lateness: Projects will not be accepted after the cutoff date.

Objective

- Modify project 2
- Create reports
- Manage concurrency

Database requirements

Include all the requirements of project two.

Add the following new database requirements

- Assign parents/guardians to children that are patients. One parent can be assigned to many children/dependents. Parents need a name, address, email and phone. A parent doesn't need to also be a patient.
- Pharmacy staff including name, address, hire date, title and salary.
- Pharmacy staff dispense prescriptions.

Data

Include all the data entered from project two.

In addition, enter at least the following information into your database

- 10 children that are patients
- Parents for the children
- 10 pharmacy staff
- 10 prescriptions with the new requirement of including pharmacy staff

Search

Generate SQL commends to answer the following queries. If a nested select is requested to answer the question, then all components of the query must use a nested select. Rename the columns so they are descriptive.

When you are asked to "explain your results", you must identify the problem and your method of fixing the problem. Be descriptive and use appropriate terminology.

1. Identify the medication history of [child patient name]. Display the patient name, parent names, physician, drug, date of prescription and dosage. Order chronologically by date.
2. Identify child patients without parents in the database. Display the child patient name. Use a nested select to answer this question.
3. Identify pharmacy staff that dispensed the most prescriptions in the last year. Display the pharmacy staff name, store address and number of medications. Display one row for each pharmacy staff. The staff with the most medications will be displayed first. Use a nested select to answer this question.

4. Identify pharmacies with more than three staff. Display the store name and number of staff. Display one row for each store. The store with the most staff will be displayed first.
5. Identify stores with the most sales in 2016. Display one row for each store. Display the store address, city, total revenue, smallest sale and largest sale. Use functions to answer this question. The store with the highest revenue will display first.
6. Increase the price of [drug name] by [percent change] at all stores. Identify the SQL commands to perform this operation.
7. The pharmacist doesn't know how to spell a drug name, but the first few letters are *adap*. Identify all drugs with a similar spelling. Display the brand name, generic name and dosage.
8. The drug [drug name] will no longer be sold at all stores. What is the best process to implement. Identify the SQL commands to perform this operation.
9. In one SQL window, change the staff salary for record 1. Don't commit. In another SQL window, change the staff salary for record 1. Don't commit. Resolve the problem. Disable the auto commit flag at the top of the windows before performing this operation. Explain your results.
10. In one SQL window, delete all drugs. Don't commit. In another SQL window, increase the price of all drugs by 5%. Don't commit. Explain your results. Resolve the problem. Create a backup of your table before implementing. To create a backup table, enter CREATE TABLE <NEWTABLE> AS SELECT * FROM <ORIGINALTABLE>; COMMIT; Then you can rename a table using the RENAME TABLE commit. Disable the auto commit flag at the top of the windows before performing this operation.
11. In one SQL window, null all patient addresses. Don't commit. In another SQL window, null all patient allergies. Don't commit. Quit both Oracle sessions. Login to Oracle and search for this information. Explain your results. Disable the auto commit flag at the top of the windows before performing this operation.
12. Use the SQL DESCRIBE operation to list the table structure for all tables.

<u>Other requirements</u>

- All questions and output must include at least one row displayed.
- Normalize your tables to third normal form.
- All multi value columns must be saved to their own table.
- Identify and create primary keys for each table.
- Create foreign keys to enforce referential integrity. For instance, you must have foreign keys with references to at least the following: destination airports, arrival airports, flight numbers and staff.
- Your project must include the question, SQL command to answer the question and output from the SQL command. You also need to include the SQL commands to insert data, alter column names and alter column types.
- Create descriptive column labels for all output.
- Clearly label each question and answer.
- Use appropriate terminology.

Formatting

- Your project must include the question and SQL operations to answer the question
- The column output should be displayed in a non-proportional font such as courier. This will display the columns vertically straight.
- All columns in your search must display on one line. Don't wrap columns to two lines.
- Your project must be typed.
- Use appropriate terminology.
- All pages of your output must include your name, class, date and project number in the header of each page.
- The first page of your project must include your name, the last four digits of your student id, class, the submission date and the project number.

Submission

- All pages of your project must be combined into one MS Word or one Adobe PDF file. Combine all project requirements into one file. Don't submit more than one file. Files not submitted in this format will be rejected.
- An electronic copy of your project will be submitted to Blackboard on the due date. The file name will be in the format: [last name] [first name] HW3.docx or [last name] [first name] HW3.pdf. For example, *Smith Sally HW3.pdf.* Submit one MS Word or one Adobe PDF file. Files not submitted in this format will be rejected.
- Do not submit hardcopies of the project.
- No projects will be accepted if left under my office door, my office mailbox or delivered to any other member of the department.
- Projects will not be accepted after the cutoff date.
- Late points will be deducted for projects submitted after the due date. Five points will be deducted each calendar day submitted after the due date.

Academic Integrity

Projects and examinations must represent your own work. Group projects and exams are not permitted. Although you are encouraged to ask other students for information, you should neither copy another student's project nor permit another student to see your work. You can be asked to perform specific procedures and operations in the presence of the instructor. A student who submits a project that is too similar to another student's work will receive a ZERO for the project. Additional penalties may be imposed. Students found guilty of any form of academic dishonesty such as plagiarism or cheating on an exam or computer project are subject to discipline, including, but not limited to, failure in the course and suspension or dismissal from the College. You are required to comply with the CUNY Policy on Academic Integrity available at

http://www.cuny.edu/about/administration/offices/sa/policies/AcademicIntegrityPolicywithoutmemo.pdf