

CS579 – Spring 2016
Class Project – Part 3

Assigned: 3/22

Due: 3/29

This assignment is a practice of physical database design. Perform the following tasks using the attached database schema.

1. Write a create table statement for each relation. In your create table statements, include at least two constraints for each table.
2. For each foreign key, specify appropriate referential triggered action clause (e.g., on delete ..., on update ...). Note that Oracle did not implement all referential triggered actions discussed in the book.
3. Write insert statements to insert about 10 tuples into each table.
4. Write following queries in SQL and issue them to your database. Then, capture the screen of the query results and include them in your submission. Make sure that each query returns at least one tuple (If necessary, you need to insert additional tuples).
 - (a). Show the list of all insurance companies with which <the name of a physician of your choice> has a contract.
 - (b). Show the list of all visits by <the name of a person of your choice> between 1/1/2013 and 3/31/2013. For each visit, display the date, doctor's name, PCP or not, and diagnosis.
 - (c). Show the list of all insurance companies which have contract with <the name of a person of your choice>'s employer.
 - (d). Among the claims filed by <the name of a doctor of your choice>, show the list of those that were not paid yet. Here, we assume that all claims are filed by physicians.

Deliverables

1. Script file: Create **a single text file** that includes the following: (1) all create table statements, (2) all insert statements, and (3) four sql queries. Name the file as LastName_FirstName_P3.sql and **upload it to Blackboard**. All your SQL statements must be syntactically correct and executable on a DBMS. I will execute all create table statements and all insert statements as a single script. So, it is very important that you order all statements in your file in such a way that no referential integrity is violated. Don't forget to write your name at the head of the file as a comment.
2. Query result file: Capture the screenshots of the query results and include them in a file named LastName_FirstName_P3.doc (or .pdf, or in any other appropriate file format). Again, write your name on the file. You may upload this file to Blackboard or you may submit a hardcopy.

Note: There is one redundancy in the attached schema diagram which was not present in the ER diagram of Part 1. What is that redundancy? Why do you think that redundancy was introduced?

Health Insurance Relational Database (suggested)

PERSON

<u>SSN</u>	Name	Phone	Address	Employer	Insurer	PCP
				FK	FK	FK

PHYSICIAN

<u>PID</u>	Name	Specialty	Address	Phone
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VISIT

<u>SSN</u>	<u>PID</u>	<u>Date</u>	Diagnosis	PCP_or_not
FK	FK			

CLAIM

<u>CID</u>	Amount	File_date	Paid_date	SSN	PID	Date	Insurer
							FK
				FK			

EMPLOYER

<u>Name</u>	Address	Phone
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INSURER

<u>Name</u>	Address	Phone
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HOSPITAL

<u>Name</u>	Address	Phone
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EMP_INSURER

<u>Emp_name</u>	<u>Ins_name</u>
FK	FK

PHY_INSURER

<u>PID</u>	<u>Ins_name</u>
FK	FK

AFFILIATION

<u>PID</u>	<u>Hospital_name</u>
FK	FK