

## Database Systems 1: CS3431, C-Term 2013 Practice Sheet 1 (SQL)

- This sheet is not subject to grading. Its purpose is to practice several SQL queries and commands to get familiar with its clauses and usage.
  - This sheet is released on: 02/11/2013, the solution will be posted on 02/18/2013
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Refer to the project you are working on, i.e., the **Hospital Database Application**, and more specifically, the relational model provided to you in the solution of project 1. Write the SQL command to answer the following questions:

**Q1:** Report the equipment (serial#, typeID, purchase year, and last inspection) that exist in room 707 and purchased after 2005.

**Q2:** Report the comments inserted by doctor "John Smith" in admission number 1111.

**Q3:** Report the names (first and last) of division managers (in our model, this means the emp\_rank = 1) who supervise more than 10 employees.

**Q4:** Report the patient information (SSN, first and last names) who stayed in at least 2 rooms in a single admission.

**Q5:** Select the admission information (admission number, patient SSN) for admissions where the insurance payment covers more than 80% of the total payment.

**Q6:** Report the patients (only SSN) for those who stayed in Intensive Care Unit (ICU) in a single admission more than 3 days during year 2010. Note that "ICU" in our application is modeled as a room service.

**Q7:** Report the patients (only SSN) for those who stayed in Intensive Care Unit (ICU) more than 3 days during year 2010. Note that "ICU" in our application is modeled as a room service.

**Hint:** Q7 differs from Q6 in that in Q7 the 3 days do not have to be in a single admission.

**Q8:** Report the different employees who have the same names, i.e., they differ in their IDs but have the same first and last names. The output should be in the form of:

*FirstName, LastName, ID1, ID2*

Where *ID1* and *ID2* are distinct but they have the same first and last names.

**Q9:** Report the distinct room numbers (no duplication) currently occupied or they offer ICU service.

**Q10:** Report the equipment types (Type ID) that have equipment purchased in 2006 or 2007.

**Q11:** Report the equipment types (Type ID) that have equipment purchased in two consecutive years.

**Q12:** Update the specialty of doctor "John Smith" to be *Cardiology*

**Q13:** For non-occupied rooms, update the *last inspection* date of the equipment in these rooms to the current date.

**Q14:** Delete the doctors' records whose specialty is *Cardiology* or *Dermatology*.

**Q15:** Delete all the comments inserted by doctor "John Smith".