**CS3431-A16: Project Description**

**Building a Database Application**

**Phase 2: Views, Triggers, and Procedures**

**Post Date:** R 9/29

**Due Date:** Sa 10/1 at 11:59pm

**Teams:** The project is done in teams of two

**Submission:** Make sure to include both of your names on the project submission. Only one student is to submit the assignment so be certain to determine who that will be in advance. The SQL code should be in a file named p2.sql and include the creation of the hospital database from Phase 1 in addition to this assignment’s requirements. In other words, we need to be able to run your code to verify that it works.

**Description:**

For this assignment you will add to your project phase 1 by adding Faulkner’s Hospital’s 5th floor to your existing database. This time, you will add the elevators directly connecting the 1st, 3rd, and 5th floors to one another. The floor plan for the 5th floor is in the Faulkner Hospital Annotations 2.pdf file. The areas accessible to visitors and patients are the main hallway and the destinations marked by red dots. To make the process of entering the health care professionals into the database easier, I have provided version two of the hospital directory which has the first name, last name, and titles in separate columns.

1. Create a query using views instead of sub-queries for the following: for each location that is not a hallway or elevator, list the number of health care professionals who are either medical doctors (MDs) or registered nurses (RNs).
2. Create a procedure that takes a location name (for example, 5A) as a parameter and displays the total number of health care professionals at that location. Hint: Use the function dbms\_output.put\_line(). Also make sure to run the following so you can see the output:   
   sql> set serveroutput on;

Create the following triggers:

1. Health care professionals cannot be located on the first floor. An error message will result.
2. Health care professionals cannot have more than 3 titles. An error message will result.
3. If a health care professional is assigned to a location other than 5A that already has 20 or more people (like 5 South), then the health care professional will instead be assigned to 5A.
4. Only elevator locations can have neighbors on a different floor.
5. Insert records to test the triggers above.