

CMPE 354 Lab 6

Stored procedures, functions and triggers

To be done in groups of two: pick your partner!

In this lab work, you will write the following stored procedures/functions/triggers to manipulate the university database created in the previous labs *before* coming to the lab. The lab will be only for checking your work.

- 1) Write a stored procedure called "register" that takes as parameters the ID, name, department name and total credit of a student, and inserts it into the student table.
- 2) Write a function called "howManyRooms" that takes two parameters, "low" and "high", and returns the number of classrooms with capacity between "low" and "high", inclusive of both values.
- 3) Write a function "howManyInstructors" that takes one parameter, the name of a department, and returns the number of instructors in that department.
- 4) Write a trigger called "salary" that gets called for INSERT or UPDATE or DELETE operations performed on the INSTRUCTOR table. This trigger will display the SALARY difference between the old values and new values.

Although we have covered the above topics in class, every database system can have its own syntax that diverges somewhat from standard SQL. So you may find it useful to study the following resources before attempting the lab work.

- <http://dev.mysql.com/doc/refman/5.6/en/stored-programs-views.html>
- <http://dev.mysql.com/doc/refman/5.6/en/create-procedure.html>
- <http://dev.mysql.com/doc/refman/5.6/en/create-function-udf.html>
- <http://dev.mysql.com/doc/refman/5.6/en/create-trigger.html>
- <http://dev.mysql.com/doc/refman/5.6/en/call.html>
- <http://dev.mysql.com/doc/refman/5.6/en/user-variables.html>
- <http://dev.mysql.com/doc/refman/5.1/en/sql-syntax-compound-statements.html>