

CS 4611 – Fall 2017 – Laboratory 7
Assigned: 10/17/2017
Due: 10/24/2017 at 11:59 PM. Submit your file(s) to canvas.
Maximum Grade: 100 pts.

Objectives: The objectives of this lab are the following:

- **Learn the fundamentals of triggers in PL/SQL.**
- **Learn how triggers can be used to enforce certain constraints.**

Consider the following relation schemas:

writer(id, name, age)
reviewer(id, reviewer_name, salary)
college_department(dept_name, dept_address)
is_reviewer_of(writer_id, reviewer_id, dept_name)

with the following constraints:

1. A reviewer can act as a reviewer for only one department.
2. The salary of a reviewer cannot be negative.
3. The salary of a reviewer can never be reduced by anyone.
4. A writer may have at most one reviewer for a given college department

Activity:

Write a file named `your_last_name_lab7.sql` containing your name at the top, and also containing the following:

- a) An implementation in Oracle SQL of the tables above. These tables must have all the appropriate primary keys, foreign keys, not null constraints, check constraints, etc.
- b) A trigger definition that implements constraint 3 for all updates.
- c) A trigger definition that implements constraint 4 for all inserts and updates.
- d) A block that performs an update that tries to reduce the salary of a reviewer, i.e., a block that tries to violate constraint 3).
- e) A block that tries to add two reviewers from the same department to the same writer, i.e., a block that tries to violate constraint 4.

Notes:

- Your file must run in Oracle, so remember to comment everything that is not an Oracle statement.
- I will post some slides in Canvas that could help you with this lab.