

South Dakota School of Mines & Technology
Database Management Systems, Spring 2024

CSC 484-M01

Lab 11 – Triggers

Due

Thursday, April 18th, 2024, at **11:59 PM** (Mountain Time).

Reference(s)

Textbook chapter 8

Software Required

MySQL Workbench

Deliverable:

Prepare a lab report document (.pdf, .doc or .docx file). Save your SQL script (.sql). Zip the lab document and the SQL script and submit the zip file on D2L before the deadline. The lab report should include screenshots for each task.

In this lab we are going to assume that the values of the **maxRent** attribute in the **dreamhome.Client** table cannot be less than \$100.

Task 1 [20 points]:

Create a BEFORE UPDATE trigger for the **dreamhome.Client** table that validates that the **maxRent** value is not less than \$100. If the new value is less than \$100, set it to \$100.

Task 2 [20 points]:

- a. Test the trigger you created in Task 1 by writing and executing an UPDATE statement that updates the maxRent of clientNo CR56 to \$450. Write your observation.
- b. Modify your UPDATE statement in (a) so that it updates the maxRent of clientNo CR56 to \$85. Write your observation.

Task 3 [20 points]:

Create a BEFORE INSERT trigger for the **dreamhome.Client** table that validates that the **maxRent** value is not less than \$100. If the **maxRent** value being inserted is less than \$100, raise an alert (exception) and abort (using a signal command).

Task 4 [20 points]:

- a. Test the trigger you created in Task 3 by writing and executing an INSERT statement that adds a new entry to the **dreamhome.Client** table. The **maxRent** of the new record is \$450. Write your observation.
- b. Add another client entry whose **maxRent** is \$85. Write your observation.

Task 5 [20 points]:

Create any other trigger on the **dreamhome.Client** table. Test your trigger and write any observations. Your trigger should be one of the following:

- AFTER DELETE
- BEFORE DELETE
- AFTER UPDATE
- AFTER INSERT