CS579
Class Project – Part 4

Due: 11/30

This assignment is a practice of writing stored programs and triggers on MySQL.

Problem 1. Write a stored procedure that satisfies the following requirements:

Procedure name: emp_info
Input parameter:
emp_number: employee number
Output parameter:
None
Behavior:
Display the name, and salary of the employee with the given employee number in the following format:

Employee Number	Employee Name	Salary
123456	John Doe	50000

Problem 2. Write a stored procedure that satisfies the following requirements:

Procedure name: emp_orders
Input parameter :
emp_number: employee number
Output parameter:
None
Behavior:
Display the employee name, customer name, and order amount of all orders handled by the employee with the given employee number in the following format:

Kelsey Hank, Office Pro, 10
Kelsey Hank, ACME, 50
Kelsey Hank, Boston Supply, 65

Problem 3. Write a stored function that satisfies the following requirements:

Function name: get_phone
Input parameter:
cust_name: customer name
branch_numer: branch number
Retunrs:
br_phone: branch phone number

Behavior:

Returns the phone number of the specified customer branch.

Problem 4. Write a trigger named *max_emp* that implements the following constraint:

- An order is handled by at most two employees.
- If an insert operation into the *handles* table would violate this constraint, an appropriate error message must be issued and the operation must be aborted.
- Otherwise, the insertion operation is performed (i.e., the tuple is inserted).

Problem 5. Write a trigger named *date_inconsistency* that implements the following constraint:

- The required shipping date of a suborder cannot be earlier than the order date of the order to which the suborder belongs.
- If an insert operation into the *suborder* table would violate this constraint, an appropriate error message must be issued and the operation must be aborted.
- Otherwise, the insert operation is performed (i.e., the tuple is inserted).

For Problem 1 and Problem 2: For each problem, write a stored procedure, call the procedure (using an appropriate input parameter), capture the screenshot that includes the invocation of the procedure and its result, and include it in your submission file.

For Problem 3: write a function, invoke the function in a select statement (using an appropriate input parameter), capture the screenshot that includes the invocation of the function and its result, and include it in your submission file.

For Problem 4 and Problem 5: For each problem, write a trigger and ***two test sql statements***. The first statement should succeed and the second statement should fail (i.e., the second statement violates the constraint and your trigger must block it and issue an error message). Write and execute the create trigger statements. Then, issue the test sql statements and capture the screenshots of the resulting screens, and include them in your submission file.

Delieverables:

1. Electronic copy: You need to upload two files. The first file must include two create procedure statements, one create function statement, two create trigger statements, and all test sql statements. All your scripts/statements must be syntactically correct and executable without error. Name this file *Lastname_FirstName_P4.sql*. The second file includes all screenshots. Name this file *Lastname_FirstName_P4_screens.EXT*, where *EXT* is an appropriate file extension.
2 **Important:** the grader will test your scripts on your database she created based on your Part 3 submission. If you changed your database tables or inserted more tuples,

then you have to also submit all scripts with which she can update or recreate your database for this Part 4.