EASTERN INTERNATIONAL UNIVERSITY
SCHOOL OF COMPUTING
AND INFORMATION TECHNOLOGY
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Practice Assignment – Quarter 4, 2023-2024
Course Name: Database
Course Code: CSE 301
Student's Full Name:
Student ID:

Practice Assignment 8

***Instruction*:**

** Students are allowed to write their answers (like SQL queries, Screen shot of outputs, etc.) in word file (Answer sheet) provided by instructor. After finishing the assignment, students must convert the word file (Answer sheet) into a PDF file. Finally, students upload the file in Moodle.*

a) TRIGGER (when an event happens, do something ex (insert, update, delete) checks data, handles errors, auditing tables)

There are six types of row-level triggers in MySQL. They are:

- Before Insert Trigger
- After Insert Trigger
- Before Update Trigger
- After Update Trigger
- Before Delete Trigger
- After Delete Trigger

Syntax:

```
            CREATE TRIGGER trigger_name
            {BEFORE | AFTER} {INSERT | UPDATE | DELETE}
            ON table_name
            FOR EACH ROW
            BEGIN
               -- Trigger body (SQL statements)
            END;

DROP TRIGGER [IF EXISTS] [schema_name.]trigger_name;
```

1. Create a trigger before_total_quantity_update to update total quantity of product when Quantity_On_Hand and Quantity_sell change values. Then Update total quantity when Product P1004 have Quantity_On_Hand = 30, quantity_sell =35.
2. Create a trigger before_remark_salesman_update to update Percentage of per_remarks in a salesman table (will be stored in PER_MARKS column) : per_remarks = target_achieved*100/sales_target.
3. Create a trigger before_product_insert to insert a product in product table.
4. Create a trigger to before update the delivery status to "Delivered" when an order is marked as "Successful".

5. Create a trigger to update the remarks "Good" when a new salesman is inserted.
6. Create a trigger to enforce that the first digit of the pin code in the "Clients" table must be 7.
7. Create a trigger to update the city for a specific client to "Unknown" when the client is deleted
8. Create a trigger after_product_insert to insert a product and update profit and total_quantity in product table.
9. Create a trigger to update the delivery status to "On Way" for a specific order when an order is inserted.
10. Create a trigger before_remark_salesman_update to update Percentage of per_remarks in a salesman table (will be stored in PER_MARKS column) If per_remarks >= 75%, his remarks should be ‘Good’. If 50% <= per_remarks < 75%, he is labeled as 'Average'. If per_remarks <50%, he is considered 'Poor'.
11. Create a trigger to check if the delivery date is greater than the order date, if not, do not insert it.
12. Create a trigger to update Quantity_On_Hand when ordering a product (Order_Quantity).

b) Writing Function:

Hàm đơn trị

```
CREATE FUNCTION name_function (Var)
RETURNS data_type
DETERMINISTIC
BEGIN
   Statement SQL
   RETURN value
END
```

1. Find the average salesman’s salary.
2. Find the name of the highest paid salesman.
3. Find the name of the salesman who is paid the lowest salary.
4. Determine the total number of salespeople employed by the company.
5. Compute the total salary paid to the company's salesman.
6. Find Clients in a Province
7. Calculate Total Sales
8. Calculate Total Order Amount