

## P9

### Problem Statement:

Trigger on CUSTOMERS table to fire on INSERT/UPDATE/DELETE that will display or log the salary difference between old and new values.

### Code:

```
-- P9: Trigger for CUSTOMERS (MySQL)
CREATE TABLE CUSTOMERS (
    cust_id INT PRIMARY KEY,
    name VARCHAR(100),
    salary DECIMAL(12,2)
);

CREATE TABLE Customer_Tracking (
    id INT AUTO_INCREMENT PRIMARY KEY,
    cust_id INT,
    diff_salary DECIMAL(12,2),
    action_type VARCHAR(10),
    action_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP
);

DELIMITER $$
CREATE TRIGGER trg_customers_after_insert
AFTER INSERT ON CUSTOMERS
FOR EACH ROW
BEGIN
    INSERT INTO Customer_Tracking(cust_id, diff_salary, action_type) VALUES (NEW.cust_id, NEW.salary,
    'INSERT');
END$$
DELIMITER ;

DELIMITER $$
CREATE TRIGGER trg_customers_after_update
AFTER UPDATE ON CUSTOMERS
FOR EACH ROW
BEGIN
    INSERT INTO Customer_Tracking(cust_id, diff_salary, action_type)
    VALUES (NEW.cust_id, NEW.salary - OLD.salary, 'UPDATE');
END$$
DELIMITER ;

DELIMITER $$
CREATE TRIGGER trg_customers_after_delete
AFTER DELETE ON CUSTOMERS
FOR EACH ROW
BEGIN
    INSERT INTO Customer_Tracking(cust_id, diff_salary, action_type) VALUES (OLD.cust_id, OLD.salary,
    'DELETE');
END$$
DELIMITER ;
```