**EXPERIMENT-12**

**Title: 10. To understand the concepts of Trigger.**

**Objective**

1. Implement a row-level trigger display\_salary\_diff to track salary changes in the CUSTOMER table.
2. Display salary differences for new, updated, or deleted records during INSERT, UPDATE, or DELETE operations.

**Theory:**  
A row-level trigger in Oracle, **display\_salary\_diff**, outputs new, updated, or deleted records' salary differences in the **CUSTOMER** table. It fires before INSERT, UPDATE, or DELETE operations, aiding in tracking salary changes.**. -- Create the CUSTOMER table**

CREATE TABLE CUSTOMER (

ID NUMBER,

NAME VARCHAR2(50),

AGE NUMBER,

ADDRESS VARCHAR2(50),

SALARY NUMBER

);

**-- Insert some sample data**

INSERT INTO CUSTOMER (ID, NAME, AGE, ADDRESS, SALARY)

VALUES (1, 'Ramesh', 32, 'Ahmedabad', 2000.00);

INSERT INTO CUSTOMER (ID, NAME, AGE, ADDRESS, SALARY)

VALUES (2, 'Khilan', 25, 'Delhi', 1500.00);

**-- Create the trigger**

CREATE OR REPLACE TRIGGER display\_salary\_diff

BEFORE INSERT OR UPDATE OR DELETE ON CUSTOMER

FOR EACH ROW

BEGIN

IF INSERTING THEN

DBMS\_OUTPUT.PUT\_LINE('New Record: ' || :NEW.ID || ' ' || :NEW.NAME || ' ' || :NEW.AGE || ' ' || :NEW.ADDRESS || ' ' || :NEW.SALARY);

ELSIF UPDATING THEN

DBMS\_OUTPUT.PUT\_LINE('Updating Record: ' || :NEW.ID || ' ' || :NEW.NAME || ' ' || :NEW.AGE || ' ' || :NEW.ADDRESS || ' ' || :NEW.SALARY);

DBMS\_OUTPUT.PUT\_LINE('Salary Difference: ' || (:NEW.SALARY - :OLD.SALARY));

ELSIF DELETING THEN

DBMS\_OUTPUT.PUT\_LINE('Deleting Record: ' || :OLD.ID || ' ' || :OLD.NAME || ' ' || :OLD.AGE || ' ' || :OLD.ADDRESS || ' ' || :OLD.SALARY);

END IF;

END;/

**-- Enable DBMS\_OUTPUT to see the output**

SET SERVEROUTPUT ON;

**-- Perform some operations to test the trigger**

**-- Insert a new record**

INSERT INTO CUSTOMER (ID, NAME, AGE, ADDRESS, SALARY)

VALUES (3, 'Kaushik', 23, 'Kota', 2000.00);

**-- Update a record**

UPDATE CUSTOMER SET SALARY = 2500 WHERE ID = 1;

**-- Delete a record**

DELETE FROM CUSTOMER WHERE ID = 2;

**-- Insert another record**

INSERT INTO CUSTOMER (ID, NAME, AGE, ADDRESS, SALARY)

VALUES (4, 'Chaitali', 25, 'Mumbai', 6500.00);

**-- Update the same record**

UPDATE CUSTOMER SET SALARY = 7000 WHERE ID = 4;

**-- Delete the record**

DELETE FROM CUSTOMER WHERE ID = 3;

