

SOLUTION FOR PROBLEM STATEMENT 6:

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-- Step 1: Create the Employee table
CREATE TABLE Employee (
    emp_id INT PRIMARY KEY,
    dept_id INT,
    emp_name VARCHAR(50),
    DoJ DATE,
    salary DECIMAL(10, 2),
    commission DECIMAL(10, 2), -- Initially empty (NULL)
    job_title VARCHAR(50)
);

-- Insert sample data (example purposes)
INSERT INTO Employee (emp_id, dept_id, emp_name, DoJ, salary, job_title) VALUES
(1, 101, 'Alice', TO_DATE('2010-01-15', 'YYYY-MM-DD'), 12000, 'Manager'),
(2, 102, 'Bob', TO_DATE('2005-04-20', 'YYYY-MM-DD'), 9000, 'Senior Developer'),
(3, 103, 'Charlie', TO_DATE('2021-08-01', 'YYYY-MM-DD'), 2500, 'Intern'),
(4, 101, 'David', TO_DATE('2015-03-12', 'YYYY-MM-DD'), 5000, 'Developer');

//Task 1: Stored Procedure to Record Employee Commission
CREATE OR REPLACE PROCEDURE Update_Commission AS
BEGIN
    FOR emp IN (SELECT emp_id, salary, DoJ FROM Employee) LOOP
        DECLARE
            years_of_experience INT;
            commission_rate DECIMAL(5, 4);
        BEGIN
            -- Calculate years of experience
            years_of_experience := FLOOR(MONTHS_BETWEEN(SYSDATE, emp.DoJ) / 12);

            -- Determine commission based on conditions
            IF emp.salary > 10000 THEN
                commission_rate := 0.004; -- 0.4%
            ELSIF emp.salary < 10000 AND years_of_experience > 10 THEN
                commission_rate := 0.0035; -- 0.35%
            ELSIF emp.salary < 3000 THEN
                commission_rate := 0.0025; -- 0.25%
            ELSE
                commission_rate := 0.0015; -- 0.15%
            END IF;

            -- Update the employee's commission
            UPDATE Employee
            SET commission = emp.salary * commission_rate
            WHERE emp_id = emp.emp_id;
        END;
    END LOOP;

    -- Commit the changes
    COMMIT;
END;

EXEC Update_Commission;

//Task 2: PL/SQL Function to Return Manager's Name by Department ID
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CREATE OR REPLACE FUNCTION Get_Manager_Name(dept_id_param INT) RETURN VARCHAR2 AS
    manager_name VARCHAR2(50);
BEGIN
    -- Find the name of the employee who is the manager of the given department
    SELECT emp_name
    INTO manager_name
    FROM Employee
    WHERE dept_id = dept_id_param AND job_title = 'Manager'
    FETCH FIRST 1 ROWS ONLY; -- In case there are multiple managers, just return
the first one

    RETURN manager_name;
EXCEPTION
    WHEN NO_DATA_FOUND THEN
        RETURN 'No manager found';
    WHEN TOO_MANY_ROWS THEN
        RETURN 'Multiple managers found';
END;

SELECT Get_Manager_Name(101) AS Manager_Name FROM dual;

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