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--Views1
CREATE VIEW View_Employee_Project_Houston AS
SELECT
    ssn,
    fname,
    pnumber,
    pname,
    hours
FROM
    employee
JOIN works_on ON ssn = essn
JOIN project ON pno = pnumber
WHERE
    plocation = 'Houston';

--Views2
CREATE VIEW View_Employee_Dependents_Under18 AS
SELECT
    e.fname AS fname,
    d.dependent_name,
    d.bdate
FROM
    employee e
JOIN dependent d ON e.ssn = d.essn
WHERE
    YEAR(GETDATE()) - YEAR(d.bdate) < 18 AND (d.relationship = 'Son' OR d.relationship =
'Daughter');

INSERT INTO Dependent VALUES ('123456789', 'Quang', 'M', CONVERT(datetime, '04-01-2015',
105), 'Son');
INSERT INTO Dependent VALUES ('123456789', 'Phuc', 'M', CONVERT(datetime, '04-01-2017',
105), 'Daughter');
INSERT INTO Dependent VALUES ('123456789', 'Trinh', 'M', CONVERT(datetime, '05-05-2009',
105), 'Spouse');
--Views 3
CREATE VIEW View_Employee_Born_In_July WITH SCHEMABINDING AS
SELECT
    e.fname,
    e.bdate,
    e.sex
FROM
    dbo.employee e
WHERE
    MONTH(e.bdate) = 7;
CREATE TRIGGER

--Procedure 1
CREATE PROCEDURE Add_New_Employee
    @fname NVARCHAR(15),
    @mname NVARCHAR(1),
    @lname NVARCHAR(15),
    @ssn CHAR(9),
    @sal DECIMAL(10,2),
    @address VARCHAR(30),
    @birth_date DATE,

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    @gender CHAR(1),
    @department_name NVARCHAR(15),
    @manager_name NVARCHAR(15)
AS
BEGIN
    BEGIN TRY
        DECLARE @department_id INT, @manager_id CHAR(9);

        -- Lấy mã phòng ban
        SELECT @department_id = dnumber FROM department WHERE dname = @department_name;
        IF @department_id IS NULL
        BEGIN
            PRINT 'Error: Department not found.';
            RETURN;
        END

        -- Lấy mã số nhân viên quản lý
        SELECT @manager_id = ssn FROM employee WHERE fname = @manager_name;
        IF @manager_id IS NULL
        BEGIN
            PRINT 'Error: Manager not found.';
            RETURN;
        END

        -- Thêm nhân viên
        INSERT INTO employee (fname, minit, lname, ssn, bdate, address, sex, salary, dno,
superssn)
        VALUES (@fname, @mname, @lname, @ssn, @birth_date, @address, @gender, @sal,
@department_id, @manager_id);

        PRINT 'Employee added successfully!';
    END TRY
    BEGIN CATCH
        PRINT 'Error: ' + ERROR_MESSAGE();
    END CATCH
END;

EXEC Add_New_Employee
    @fname = 'Phuc',
    @mname = 'D',
    @lname = 'Viet',
    @ssn = '123456709',
    @sal = 5500.00,
    @address = '123 Elm Street',
    @birth_date = '1985-07-15',
    @gender = 'M',
    @department_name = 'Research',
    @manager_name = 'Phong';

-- Function 2
CREATE FUNCTION Get_Total_Projects(@employee_id Char(9))
RETURNS INT
AS
BEGIN
    DECLARE @total_projects INT;

    SELECT @total_projects = COUNT(*)
    FROM works_on
    WHERE essn = @employee_id;

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        RETURN @total_projects;
END;

SELECT dbo.Get_Total_Projects('333445555') AS TotalProjects;
--Function 3
CREATE PROCEDURE Get_Employee_Annual_Salary
AS
BEGIN
    SELECT
        e.ssn,
        e.fname,
        d.dname,
        e.salary * 12
    FROM
        employee e
    JOIN department d ON e.dno = d.dnumber;
END;

EXEC Get_Employee_Annual_Salary;
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