**WEEK 2\_Create a Scalar Function**

**Exercise 1: Create a Scalar Function Goal:**

**Create a scalar function to calculate the annual salary of an employee.**

**Steps:**

**1. Define a scalar function named `fn\_CalculateAnnualSalary`.**

**2. The function should take `Salary` as input and return `Salary \* 12`.**

**3. Test the function by selecting the annual salary for each employee.**

-- Drop tables if they already exist

DROP TABLE IF EXISTS Employees;

DROP TABLE IF EXISTS Departments;-- Create Departments table

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName VARCHAR(100)

);

-- Create Employees table

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT,

Salary DECIMAL(10,2),

JoinDate DATE,

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

-- Insert sample data into Departments

INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

(1, 'HR'),

(2, 'IT'),

(3, 'Finance');

-- Insert sample data into Employees

INSERT INTO Employees (EmployeeID, FirstName, LastName, DepartmentID, Salary, JoinDate) VALUES

(1, 'John', 'Doe', 1, 5000.00, '2020-01-15'),

(2, 'Jane', 'Smith', 2, 6000.00, '2019-03-22'),

(3, 'Bob', 'Johnson', 3, 5500.00, '2021-07-01');

-- First, separate any prior code with GO

GO

-- Step 1: Create the scalar function

CREATE FUNCTION fn\_CalculateAnnualSalary (@MonthlySalary DECIMAL(10, 2))

RETURNS DECIMAL(10, 2)

AS

BEGIN

RETURN @MonthlySalary \* 12;

END;

GO

-- Step 2: Test the function with employee data

SELECT

EmployeeID,

FirstName,

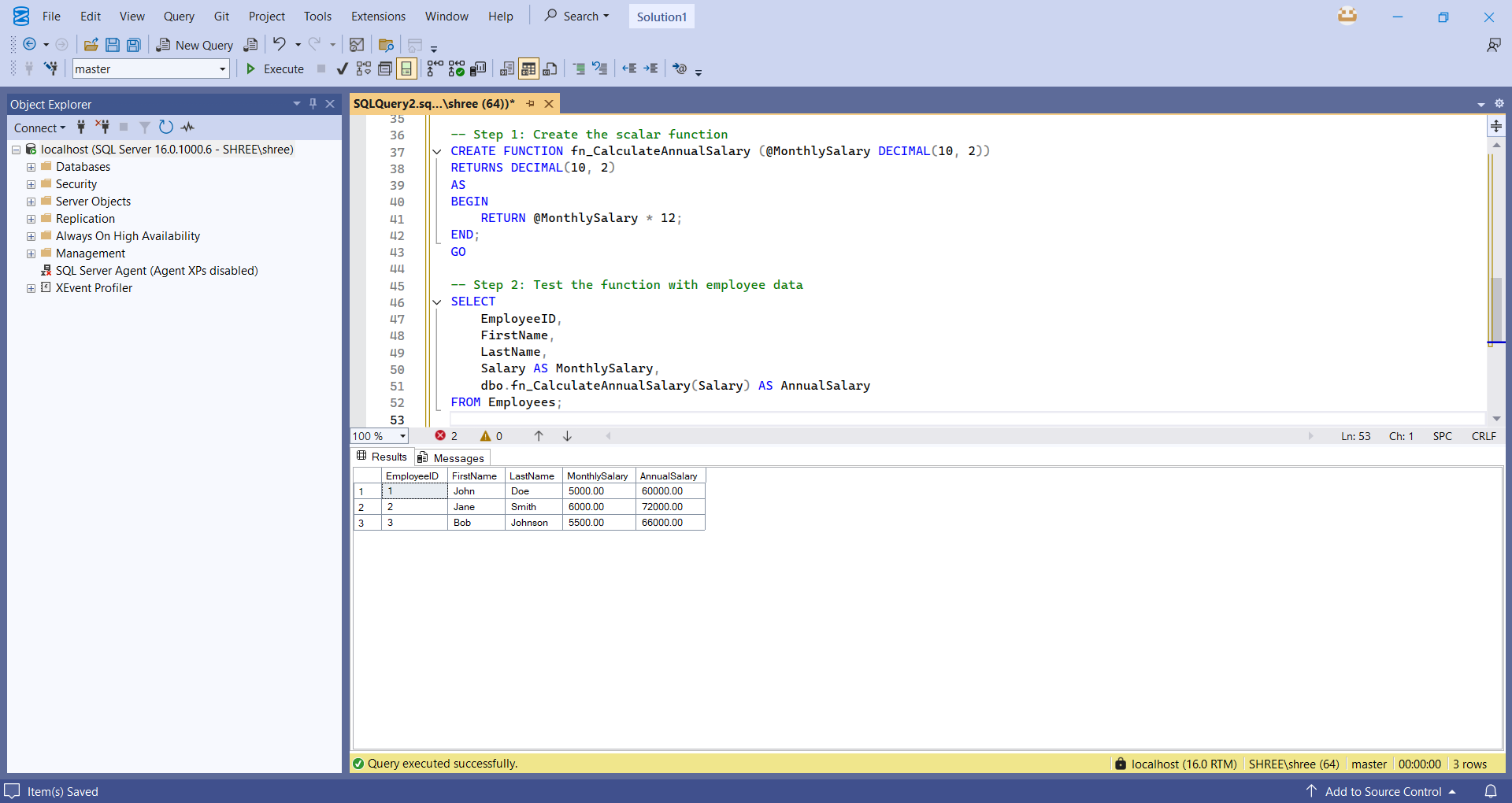
LastName,

Salary AS MonthlySalary,

dbo.fn\_CalculateAnnualSalary(Salary) AS AnnualSalary

FROM Employees;

**OUTPUT:**

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