SUPERSET ID= 6363144

FUNCTIONS:-

EXERCISES:-

CODE:

IF OBJECT\_ID('Employees', 'U') IS NOT NULL DROP TABLE Employees;

IF OBJECT\_ID('Departments', 'U') IS NOT NULL DROP TABLE Departments;

GO

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName VARCHAR(100)

);

GO

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT FOREIGN KEY REFERENCES Departments(DepartmentID),

Salary DECIMAL(10,2),

JoinDate DATE

);

GO

INSERT INTO Departments VALUES

(1, 'HR'),

(2, 'IT'),

(3, 'Finance');

GO

INSERT INTO Employees 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');

GO

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

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN @Salary \* 12;

END;

GO

SELECT

EmployeeID, FirstName, LastName, Salary,

dbo.fn\_CalculateAnnualSalary(Salary) AS AnnualSalary

FROM Employees;

GO

CREATE FUNCTION fn\_GetEmployeesByDepartment (@DeptID INT)

RETURNS TABLE

AS

RETURN (

SELECT \* FROM Employees WHERE DepartmentID = @DeptID

);

GO

SELECT \* FROM dbo.fn\_GetEmployeesByDepartment(2);

GO

CREATE FUNCTION fn\_CalculateBonus (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN @Salary \* 0.10;

END;

GO

SELECT

EmployeeID, FirstName, Salary,

dbo.fn\_CalculateBonus(Salary) AS Bonus

FROM Employees;

GO

ALTER FUNCTION fn\_CalculateBonus (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN @Salary \* 0.15;

END;

GO

SELECT

EmployeeID, FirstName, Salary,

dbo.fn\_CalculateBonus(Salary) AS Bonus

FROM Employees;

GO

DROP FUNCTION fn\_CalculateBonus;

GO

CREATE FUNCTION fn\_CalculateBonus (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN @Salary \* 0.15;

END;

GO

SELECT

EmployeeID, FirstName, Salary,

dbo.fn\_CalculateAnnualSalary(Salary) AS AnnualSalary

FROM Employees;

GO

SELECT dbo.fn\_CalculateAnnualSalary(Salary) AS AnnualSalary

FROM Employees

WHERE EmployeeID = 1;

GO

SELECT \* FROM dbo.fn\_GetEmployeesByDepartment(3);

GO

CREATE FUNCTION fn\_CalculateTotalCompensation (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN dbo.fn\_CalculateAnnualSalary(@Salary) + dbo.fn\_CalculateBonus(@Salary);

END;

GO

SELECT

EmployeeID, FirstName, Salary,

dbo.fn\_CalculateTotalCompensation(Salary) AS TotalCompensation

FROM Employees;

GO

ALTER FUNCTION fn\_CalculateBonus (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN @Salary \* 0.20;

END;

GO

ALTER FUNCTION fn\_CalculateTotalCompensation (@Salary DECIMAL(10,2))

RETURNS DECIMAL(10,2)

AS

BEGIN

RETURN dbo.fn\_CalculateAnnualSalary(@Salary) + dbo.fn\_CalculateBonus(@Salary);

END;

GO

SELECT

EmployeeID, FirstName, Salary,

dbo.fn\_CalculateTotalCompensation(Salary) AS UpdatedCompensation

FROM Employees;

GO

