Lab56:

Create a scalar function to calculate the annual bonus for employees based on their salary.

1. create a scalar function:

Create a function CalculateBonus which will take @Salary DECIMAL(10, 2) as a parameter to calculate the bonus based upon the salary. This function returns a decimal value.

We need to pass this parameter while calling the function CalculateBonus.

AS keyword is used to define the function body here.

```sql
CREATE FUNCTION CalculateBonus(@Salary DECIMAL(10, 2))
RETURNS DECIMAL(10, 2)
AS
BEGIN
    RETURN @Salary * 0.10;   -- 10% bonus
END;
```

We can see the created scalar function here inside the function folder:

⊞ ◼ Table-valued Functions

⊟ ◼ Scalar-valued Functions

    ⊞ ◪ dbo.CalculateBonus

⊞ ◼ Aggregate Functions

⊞ ◼ System Functions

2. use the scalar function in a query:

Use the select query to retrieve the EmployeeID, FirstName, LastName, Salary from Employee table and a function CalculateBonus(salary), salary is passing as a parameter inside this function.

```sql
SELECT EmployeeID, FirstName, LastName, Salary,
       dbo.CalculateBonus(Salary) AS Bonus
FROM Employees;
```


This will returns the following record with the calculated bonus:

⊞ Results ▦ Messages

	EmployeeID	FirstName	LastName	Salary	Bonus
1	1	John	Doe	60000.00	6000.00
2	2	Jane	Smith	80000.00	8000.00
3	3	Sam	Brown	75000.00	7500.00
4	4	Michael	Jordan	90000.00	9000.00
5	5	Michael	Jordan	90000.00	9000.00