

## Пользовательские функции

а) Скалярная функция, возвращающая выручку аптеки на заданную дату

```
CREATE FUNCTION GetDailyRevenue (
    @sale_date DATE
)
RETURNS MONEY
AS
BEGIN
    DECLARE @revenue MONEY

    SELECT @revenue = SUM(amount)
    FROM Sales
    WHERE date = @sale_date

    RETURN ISNULL(@revenue, 0)
END
GO

SELECT dbo.GetDailyRevenue('2025-10-16') as daily_revenue
```

	daily_revenue
1	9301,50

б) Inline-функция, возвращающая список лекарств и их количество, проданных на заданную дату

```
CREATE FUNCTION GetSoldMedicationsByDate (
    @sale_date DATE
)
RETURNS TABLE
AS
RETURN (
    SELECT
        mt.[name] as medication_name,
        SUM(mbs.quantity) as total_sold_quantity
    FROM
        Sales s JOIN MedicineBatch_Sales mbs ON s.id = mbs.sales_id
        JOIN MedicineBatch mb ON mbs.medicine_batch_id = mb.id
        JOIN MedicationType mt ON mb.medication_type_id = mt.id
    WHERE
        s.[date] = @sale_date
    GROUP BY
        mt.[name]
)
GO

SELECT * FROM GetSoldMedicationsByDate('2025-10-16')
```

	medication_name	total_sold_quantity
1	Аспирин	3
2	Валерьянка	4
3	Кларитин	3
4	Метформин	2
5	Но-шпа	1
6	Нурофен	2
7	Эналаприл	1

с) Multi-statement-функция, выдающая список лекарств от заданной болезни, имеющихся в аптеке с указанием количества упаковок

```
CREATE FUNCTION GetMedicationsForDisease (
    @disease_name NVARCHAR(20)
)
RETURNS @Medications TABLE (
    medication_name NVARCHAR(50),
    active_substance NVARCHAR(50),
    total_packages INT
)
AS
BEGIN
    INSERT INTO @Medications
    SELECT
        mt.[name] as medication_name,
        mt.active_substance,
        SUM(mb.quantity) as total_packages
    FROM
        Disease d JOIN MedicationType_Disease mtd ON d.id = mtd.disease_id
        JOIN MedicationType mt ON mtd.medication_type_id = mt.id
        JOIN MedicineBatch mb ON mt.id = mb.medication_type_id
    WHERE
        d.[name] = @disease_name AND mb.quantity > 0
    GROUP BY
        mt.[name], mt.active_substance

    RETURN
END
GO

SELECT * FROM GetMedicationsForDisease('Грипп')
```

	medication_name	active_substance	total_packages
1	Аспирин	Ацетилсалициловая кислота	150
2	Нурофен	Ибупрофен	65