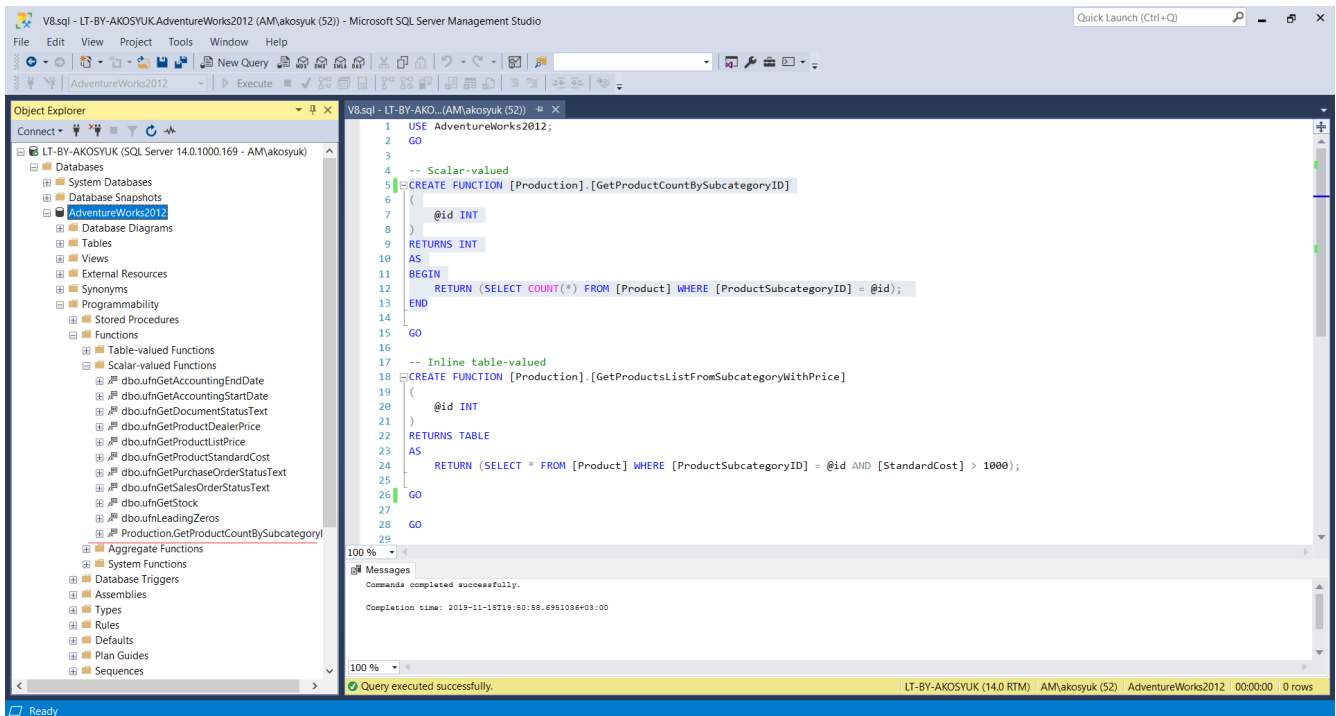
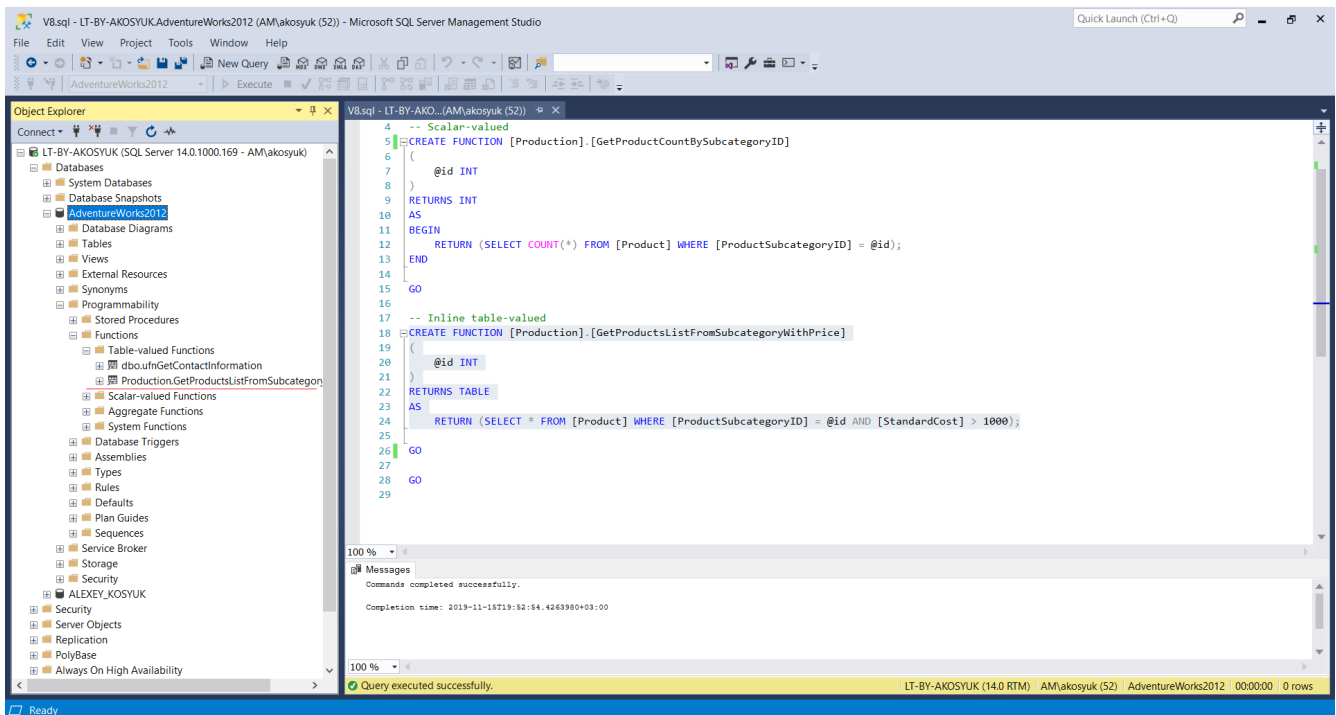


# REPORT FOR TASK 5, VARIANT 8

## 1. Scalar-valued:



## 2. Inline table-valued:



### 3. CROSS APPLY:

```
18 CREATE FUNCTION [Production].[GetProductsListFromSubcategoryWithPrice]
19 (
20     @id INT
21 )
22 RETURNS TABLE
23 AS
24 RETURN (SELECT * FROM [Product] WHERE [ProductSubcategoryID] = @id AND [StandardCost] > 1000);
25 GO
26
27 -- CROSS APPLY
28
29 SELECT * FROM [Production].[Product] CROSS APPLY [Production].[GetProductsListFromSubcategoryWithPrice]([ProductSubcategoryID]);
30
31 GO
32
33 -- OUTER APPLY
34
35 SELECT * FROM [Production].[Product] OUTER APPLY [Production].[GetProductsListFromSubcategoryWithPrice]([ProductSubcategoryID]);
36
37 GO
38
39 GO
```

ProductID	Name	ProductNumber	MakeFlag	FinishedGoodsFlag	Color	SafetyStockLev.	ReorderPoint	StandardCost	ListPrice	Size	SizeUnitMeasureCode	WeightUnitMeasureCode	Weight	DaysToManufacture
254	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
255	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
256	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
257	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
258	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
259	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
260	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
261	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4
262	761 Road-650 Red, 62	BK-R50R-62	1	1	Red	100	75	486.7066	782.99	62	CM	LB	20.00	4

Query executed successfully. LT-BY-AKOSYUK (14.0 RTM) AM\akosyuk (S2) AdventureWorks2012 00:00:00 1,421 rows

### 4. OUTER APPLY:

```
18 CREATE FUNCTION [Production].[GetProductsListFromSubcategoryWithPrice]
19 (
20     @id INT
21 )
22 RETURNS TABLE
23 AS
24 RETURN (SELECT * FROM [Product] WHERE [ProductSubcategoryID] = @id AND [StandardCost] > 1000);
25 GO
26
27 -- CROSS APPLY
28
29 SELECT * FROM [Production].[Product] CROSS APPLY [Production].[GetProductsListFromSubcategoryWithPrice]([ProductSubcategoryID]);
30
31 GO
32
33 -- OUTER APPLY
34
35 SELECT * FROM [Production].[Product] OUTER APPLY [Production].[GetProductsListFromSubcategoryWithPrice]([ProductSubcategoryID]);
36
37 GO
38
39 GO
```

ProductID	Name	ProductNumber	MakeFlag	FinishedGoodsFlag	Color	SafetyStockLev.	ReorderPoint	StandardCost	ListPrice	Size	SizeUnitMeasureCode	WeightUnitMeasureCode	Weight	DaysToManufacture
1	Adjustable Race	AR-5381	0	0	NU..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
2	Bearing Ball	BA-6327	0	0	NU..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
3	BB Ball Bearing	BE-2349	1	0	NU..	800	600	0.00	0.00	NU..	NULL	NULL	NULL	1
4	Headset Ball Bearin..	BE-2908	0	0	NU..	800	600	0.00	0.00	NU..	NULL	NULL	NULL	0
5	316 Blade	BL-2036	1	0	NU..	800	600	0.00	0.00	NU..	NULL	NULL	NULL	1
6	317 LL Crankarm	CA-5965	0	0	Bla..	500	375	0.00	0.00	NU..	NULL	NULL	NULL	0
7	318 ML Crankarm	CA-6738	0	0	Bla..	500	375	0.00	0.00	NU..	NULL	NULL	NULL	0
8	319 HL Crankarm	CA-7457	0	0	Bla..	500	375	0.00	0.00	NU..	NULL	NULL	NULL	0
9	320 Chaining Bolts	CB-2903	0	0	Silv..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
10	321 Chaining Nut	CN-6137	0	0	Silv..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
11	322 Chaining	CH-7833	0	0	Bla..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
12	323 Crown Race	CR-9081	0	0	NU..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	0
13	324 Chain Stays	CS-2812	1	0	NU..	1000	750	0.00	0.00	NU..	NULL	NULL	NULL	1

Query executed successfully. LT-BY-AKOSYUK (14.0 RTM) AM\akosyuk (S2) AdventureWorks2012 00:00:00 1,795 rows

## 5. Multistatement table-valued:

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'AdventureWorks2012', with 'Functions' expanded to show 'Table-valued Functions'. The main pane shows the definition of a table-valued function named 'GetProductsListFromSubcategoryWithPrice\_Multistatement' in the 'Production' schema. The function takes an integer parameter '@id' and returns a table of product details. The function body includes an 'INSERT INTO @products' statement with a 'SELECT' query that filters products by subcategory and standard cost. The bottom pane shows the execution results, indicating that the command completed successfully.

```
38 -- Multistatement table-valued
39 CREATE FUNCTION [Production].[GetProductsListFromSubcategoryWithPrice_Multistatement]
40 (
41     @id INT
42 )
43 RETURNS @products TABLE
44 (
45     [ProductID] INT NOT NULL PRIMARY KEY,
46     [StandardCost] MONEY NOT NULL,
47     [ProductNumber] NVARCHAR(25) NOT NULL,
48     [ProductSubcategoryID] INT NOT NULL
49 )
50 AS
51 BEGIN
52     INSERT INTO @products
53     SELECT
54         [P].[ProductID],
55         [P].[StandardCost],
56         [P].[ProductNumber],
57         [P].[ProductSubcategoryID]
58     FROM [Production].[Product] AS [P]
59     WHERE [ProductSubcategoryID] = @id AND [StandardCost] > 1000.00;
60
61     RETURN;
62 END
63
64 GO
65
```

100 %  
Messages  
Command completed successfully.  
Completion time: 2019-11-16T20:57:24.9716495+03:00

100 %  
Query executed successfully. LT-BY-AKOSYUK (14.0 RTM) AM\akosyuk (53) AdventureWorks2012 00:00:00 0 rows