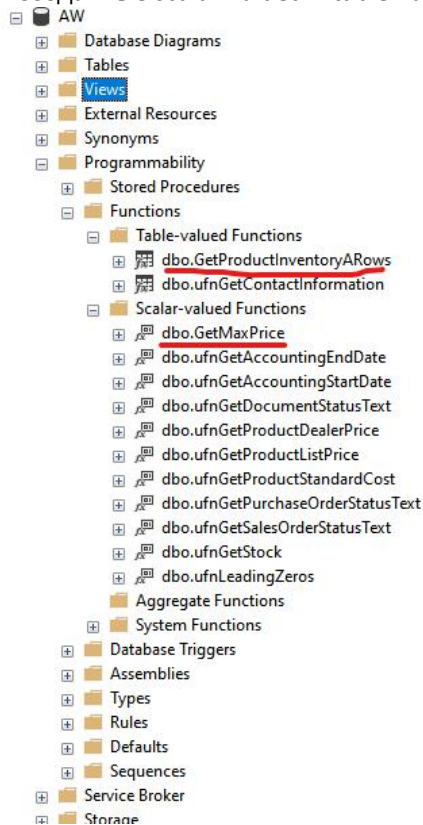


## 1) Созданные scalar-valued и table-valued функции



## 2) Применение функции с cross apply и outer apply

ProductID	LocationID	Shelf	Bin	Quantity	ProductID	Name	ProductNumber	MakeFlag
18	321	50	A	26	641	321	Chaining Nut	CN-6137
19	321	5	A	6	540	321	Chaining Nut	CN-6137
20	322	5	A	7	587	322	Chaining	CR-7833
21	322	50	A	27	475	322	Chaining	CR-7833
22	323	5	A	12	568	323	Crown Race	CR-9981
23	323	50	A	28	513	323	Crown Race	CR-9981
24	324	5	A	13	568	324	Chain Stays	CS-2812
25	324	50	A	29	476	324	Chain Stays	CS-2812
26	325	60	A	1	641	325	Decal 1	DC-8732
27	326	60	A	2	475	326	Decal 2	DC-9824
28	328	5	A	8	568	328	Mountain End Caps	EC-M092
29	328	50	A	14	476	328	Mountain End Caps	EC-M092
30	329	5	A	9	558	329	Road End Caps	EC-R098
31	329	50	A	15	467	329	Road End Caps	EC-R098
32	330	5	A	10	548	330	Touring End Caps	EC-T209
33	330	50	A	16	457	330	Touring End Caps	EC-T209
34	331	50	A	12	390	331	Fork End	FE-3760

```
select
    p.ProductID,
    LocationID,
    Shelf,
    Bin,
    Quantity,
    *
from Production.Product p
cross apply dbo.GetProductInventoryARows(ProductID, 2);
```

ProductID	LocationID	Shelf	Bin	Quantity	ProductID	Name	ProductNumber	MakeFlag	FinishedGoodsFlag	Color	SafetyStockLevel	ReorderPoint	StandardCost	ListPrice	Size	SizeUnitMeasureCode	WeightUnitMeasureCode
16	320	5	A	4	372	320	Chaining Bolts	CB-2903	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
17	320	50	A	24	283	320	Chaining Bolts	CB-2903	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
18	321	50	A	26	641	321	Chaining Nut	CN-6137	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
19	321	5	A	6	540	321	Chaining Nut	CN-6137	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
20	322	5	A	7	587	322	Chaining	CR-7833	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
21	322	50	A	27	475	322	Chaining	CR-7833	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
22	323	5	A	12	568	323	Crown Race	CR-9981	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
23	323	50	A	28	513	323	Crown Race	CR-9981	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
24	324	5	A	13	568	324	Chain Stays	CS-2812	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
25	324	50	A	29	476	324	Chain Stays	CS-2812	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
26	325	60	A	1	641	325	Decal 1	DC-8732	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
27	326	60	A	2	475	326	Decal 2	DC-9824	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
28	327	NULL	NU...	N...	NULL	327	Down Tube	DT-2377	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
29	328	5	A	8	568	328	Mountain End Caps	EC-M092	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
30	328	50	A	14	476	328	Mountain End Caps	EC-M092	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
31	329	5	A	9	558	329	Road End Caps	EC-R098	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
32	329	50	A	15	467	329	Road End Caps	EC-R098	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
33	330	5	A	10	548	330	Touring End Caps	EC-T209	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
34	330	50	A	16	457	330	Touring End Caps	EC-T209	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
35	331	50	A	12	390	331	Fork End	FE-3760	1	0	Silver	1000	750	0.00	0.00	NULL	NULL
36	332	50	A	13	267	332	Freewheel	FH-2981	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
37	341	NULL	NU...	N...	NULL	341	Flat Washer 1	FW-1000	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
38	342	NULL	NU...	N...	NULL	342	Flat Washer 6	FW-1200	0	0	Silver	1000	750	0.00	0.00	NULL	NULL
39	343	NULL	NU...	N...	NULL	343	Flat Washer 2	FW-1400	0	0	Silver	1000	750	0.00	0.00	NULL	NULL

```
select
    p.ProductID,
    LocationID,
    Shelf,
    Bin,
    Quantity,
    *
from Production.Product p
outer apply dbo.GetProductInventoryARows(ProductID, 2);
```

Query executed successfully. | np:\pipe\LOCALDB#\57EF1F3... | KAINWHITE-PC\KainWhite... | master | 00:00:00 | 612 rows

3) Код преобразования в multistatement table-valued функцию:

```
if object_id('dbo.GetProductInventoryARows') is not null drop function
dbo.GetProductInventoryARows;
go
create function dbo.GetProductInventoryARows(@productId int, @rowCount int)
returns @productInventoryARows table (
    ProductId int,
    LocationId smallint,
    Shelf nvarchar(10),
    Bin tinyint,
    Quantity smallint,
    rowguid uniqueidentifier,
    ModifiedDate datetime)
as
begin
    insert into @productInventoryARows
    select top (@rowCount) *
    from Production.ProductInventory
    where ProductID = @productId and Shelf = 'A'
    order by Quantity desc;

    return;
end;
go
```