

## Чеснаков Кирилл 751002 Вариант 8

### Задание 1

```
V8_1.sql - LAPTOP-...84PQ7E9\Asus (56))* X
-- Task a)
IF OBJECT_ID('[Person].[CountryRegionHst]') IS NOT NULL
    DROP TABLE [Person].[CountryRegionHst]
GO
CREATE TABLE Person.CountryRegionHst(
    [ID] int IDENTITY(1,1) NOT NULL PRIMARY KEY,
    [Action] NVARCHAR(6) NOT NULL,
    [ModifiedDate] DATETIME NOT NULL,
    [SourceID] NVARCHAR(100) NOT NULL,
    [UserName] NVARCHAR(100) NOT NULL
)
-- Task b)

-- Task b)
SELECT * from Person.CountryRegion
CREATE TRIGGER Person.After Trigger ON Person.CountryRegion
AFTER INSERT, UPDATE, DELETE AS
INSERT INTO Person.CountryRegionHst(Action, ModifiedDate, SourceID, UserName)
SELECT
    CASE
        WHEN inserted.CountryRegionCode IS NULL
            THEN 'delete'
        WHEN deleted.CountryRegionCode IS NULL
            THEN 'insert'
        ELSE 'update'
    END AS Action,
    GETDATE() AS ModifiedDate,
    COALESCE(inserted.CountryRegionCode, deleted.CountryRegionCode) AS SourceID,
    USER_NAME() AS UserName
FROM inserted
FULL OUTER JOIN deleted
    ON inserted.CountryRegionCode = deleted.CountryRegionCode
```

V8\_1.sql - LAPTOP-...84PQ7E9\Asus (56))\* X

```
-- Task c)

CREATE VIEW Person.View_CountryRegion WITH ENCRYPTION
AS SELECT * FROM Person.CountryRegion

--Task d)

INSERT INTO Person.View_CountryRegion (CountryRegionCode, ModifiedDate, Name)
VALUES ('TT3', GETDATE(), 'Test')

UPDATE Person.View_CountryRegion
SET
    ModifiedDate = GETDATE(),
    Name = 'Test3'
WHERE CountryRegionCode = 'TT3'

DELETE FROM Person.View_CountryRegion
WHERE CountryRegionCode = 'TT3'

SELECT * FROM Person.CountryRegionHst
```

100 %

Results Messages

	ID	Action	ModifiedDate	Source...	UserNa...
1	1	insert	2020-10-31 22:00:04.473	TT3	dbo
2	2	update	2020-10-31 22:00:30.800	TT3	dbo
3	3	delete	2020-10-31 22:00:35.053	TT3	dbo

## Задание 2

V8\_2.sql - LAPTOP-...84PQ7E9\Asus (54))\* X

```
CREATE VIEW View_CountryRegionSales WITH SCHEMABINDING AS
SELECT
    Person.CountryRegion.CountryRegionCode,
    Person.CountryRegion.ModifiedDate AS Country_ModifiedDate,
    Person.CountryRegion.Name AS CountryName,
    Sales.SalesTerritory.TerritoryID,
    Sales.SalesTerritory.CostLastYear,
    Sales.SalesTerritory.SalesLastYear,
    Sales.SalesTerritory.SalesYTD,
    Sales.SalesTerritory.CostYTD,
    [Sales].[SalesTerritory].[Group],
    Sales.SalesTerritory.ModifiedDate AS Sales_ModifiedDate,
    Sales.SalesTerritory.Name AS SalesName,
    Sales.SalesTerritory.rowguid
FROM Sales.SalesTerritory
INNER JOIN Person.CountryRegion
ON Sales.SalesTerritory.CountryRegionCode = Person.CountryRegion.CountryRegionCode

--SELECT * FROM Person.CountryRegion
--SELECT * FROM Sales.SalesTerritory

CREATE UNIQUE CLUSTERED INDEX [AK_View_CountryRegionSales_TerritoryID]
ON View_CountryRegionSales (TerritoryID);
```

100 %

Messages

Command(s) completed successfully.

```

-- Task b)

CREATE TRIGGER Trigger_CountryRegionSales
ON View_CountryRegionSales
INSTEAD OF INSERT, UPDATE, DELETE
AS
BEGIN
    -- update
    IF EXISTS (SELECT * FROM inserted) AND EXISTS (SELECT * FROM deleted)
    BEGIN
        UPDATE Person.CountryRegion
        SET ModifiedDate = inserted.Country_ModifiedDate, Name = inserted.CountryName
        FROM Person.CountryRegion
        JOIN inserted
        ON Person.CountryRegion.CountryRegionCode = inserted.CountryRegionCode

        UPDATE Sales.SalesTerritory
        SET CostLastYear = inserted.CostLastYear, CostYTD = inserted.CostYTD,
            [Group] = inserted.[Group], ModifiedDate = inserted.Sales_ModifiedDate,
            Name = inserted.SalesName, rowguid = inserted.rowguid,
            SalesLastYear = inserted.SalesLastYear, SalesYTD = inserted.SalesYTD
        FROM Sales.SalesTerritory
        JOIN inserted
        ON Sales.SalesTerritory.TerritoryID = inserted.TerritoryID
    END

    -- insert
    -- insert
    IF EXISTS (SELECT * FROM inserted) AND NOT EXISTS(SELECT * FROM deleted)
    BEGIN
        INSERT INTO Person.CountryRegion (CountryRegionCode, Name, ModifiedDate)
        SELECT CountryRegionCode, CountryName, Country_ModifiedDate
        FROM inserted

        INSERT INTO Sales.SalesTerritory (TerritoryID, Name, CountryRegionCode, [Group], SalesYTD, SalesLastYear,
            CostYTD, CostLastYear, rowguid, ModifiedDate)
        SELECT TerritoryID, SalesName, CountryRegionCode, [Group], SalesYTD, SalesLastYear,
            CostYTD, CostLastYear, rowguid, Sales_ModifiedDate
        FROM inserted
    END

    -- delete
    IF EXISTS (SELECT * FROM deleted) AND NOT EXISTS(SELECT * FROM inserted)
    BEGIN
        DELETE Person.CountryRegion
        FROM Person.CountryRegion
        JOIN deleted
        ON Person.CountryRegion.CountryRegionCode = deleted.CountryRegionCode

        DELETE Sales.SalesTerritory
        FROM Sales.SalesTerritory
        JOIN deleted
        ON Sales.SalesTerritory.TerritoryID = deleted.TerritoryID
        AND Sales.SalesTerritory.CountryRegionCode = deleted.CountryRegionCode
    END
END

```

V8\_2.sql - LAPTOP-...84PQ7E9\Asus (54))

--SELECT \* FROM Sales.SalesTerritory  
SELECT \* FROM View\_CountryRegionSales  
-- Task c)  
  
INSERT INTO View\_CountryRegionSales (  
CountryRegionCode,  
Country\_ModifiedDate,  
CountryName,  
TerritoryID,  
CostLastYear,  
SalesLastYear,  
SalesYTD,  
CostYTD,  
[Group],  
Sales\_ModifiedDate,  
SalesName,  
rowguid)  
VALUES ('TTT', '2005-06-01 00:00:00.000', 'Test Country', 11, 1.1, 2.2, 3.3, 4.4, 'Test Group',  
'2005-06-01 00:00:00.000', 'Test Sales', NEWID())  
  
SELECT \* FROM Person.CountryRegion  
SELECT \* FROM Sales.SalesTerritory

100 %  
Messages  
  
(1 row(s) affected)  
  
(1 row(s) affected)  
  
(1 row(s) affected)  
  
(1 row(s) affected)

100 %  
Results Messages  
  
Sales\_ModifiedDate,  
SalesName,  
rowguid)  
VALUES ('TTT', '2005-06-01 00:00:00.000', 'Test Country', 11, 1.1, 2.2, 3.3, 4.4, 'Test Group',  
'2005-06-01 00:00:00.000', 'Test Sales', NEWID())  
  
SELECT \* FROM Person.CountryRegion  
SELECT \* FROM Sales.SalesTerritory

100 %  
Results Messages  

	CountryRegionCo...	Name	ModifiedDate
213	TO	Tonga	2002-06-01 00:00:00.000
214	TR	Turkey	2002-06-01 00:00:00.000
215	TT	Test2	2020-10-31 21:57:42.230
216	TTT	Test Country	2005-06-01 00:00:00.000
217	TV	Tuvalu	2002-06-01 00:00:00.000
218	TW	Taiwan	2002-06-01 00:00:00.000
219	TZ	Tanzania	2002-06-01 00:00:00.000
220	UA	Ukraine	2002-06-01 00:00:00.000

	Territor...	Name	CountryRegionC...	Group	SalesYTD	SalesLastYear	CostY...	CostLastY...	rowguid	ModifiedDate
3	3	Central	US	North America	3072175.118	3205014.0767	0.00	0.00	DF6E7FD8-1A8D-468C-B103-ED8ADD845...	2002-06-01 00:00:00.000
4	4	Southw...	US	North America	10510853.8...	5366575.7098	0.00	0.00	DC3E9EA0-7950-4431-9428-99DBCBC338...	2002-06-01 00:00:00.000
5	5	Southeast	US	North America	2539867.2515	3925071.4318	0.00	0.00	6DC4165A-5E4C-42D2-609D-4344EDAC75...	2002-06-01 00:00:00.000
6	6	Canada	CA	North America	6771829.1376	5693988.86	0.00	0.00	06B4AF8A-1639-476E-9266-110461D66800	2002-06-01 00:00:00.000
7	7	France	FR	Europe	4772398.3078	2396539.7601	0.00	0.00	BF806804-9B4C-4B07-9D19-706FZE689552	2002-06-01 00:00:00.000
8	8	Germany	DE	Europe	3805202.3478	1307949.7917	0.00	0.00	6D2450DB-8159-414F-A917-E73EE91C38A9	2002-06-01 00:00:00.000
9	9	Australia	AU	Pacific	5977814.9154	2278548.9776	0.00	0.00	602E612E-DFE9-41D9-B894-27E489747885	2002-06-01 00:00:00.000
10	10	United ...	GB	Europe	5012905.3656	1635823.3967	0.00	0.00	05FC7E1F-2DEA-414E-9ECD-09D150516F...	2002-06-01 00:00:00.000
11	11	Test Sal...	TTT	Test Group	3.30	2.20	4.40	1.10	Z1C44465-6964-4A6F-AF0B-AACD9AA416...	2005-06-01 00:00:00.000

Query executed successfully. LAPTOP-H84PQ7E9\SQLEXPRESS ... LAPTOP-H84PQ7E9\Asus (54) AdventureWorks2012 00:00:00 11 rows

V8\_2sql - LAPTOP-...84PQ7E9\Asus (54) \* X

```

UPDATE View_CountryRegionSales
SET CountryName = 'Test country 2'
WHERE CountryRegionCode = 'TTT'

SELECT * FROM Person.CountryRegion
SELECT * FROM Sales.SalesTerritory

```

100 %

Results Messages

213	TO	Tonga	2002-06-01 00:00:00.000
214	TR	Turkey	2002-06-01 00:00:00.000
215	TT	Test2	2020-10-31 21:57:42.230
216	TTT	Test country 2	2005-06-01 00:00:00.000
217	TV	Tuvalu	2002-06-01 00:00:00.000
218	TW	Taiwan	2002-06-01 00:00:00.000
219	TZ	Tanzania	2002-06-01 00:00:00.000
220	UA	Ukraine	2002-06-01 00:00:00.000

Territor...	Name	CountryRegionC...	Group	SalesYTD	SalesLastYear	CostY...	CostLastY...	rowguid	ModifiedDate	
4	4	Southwest	US	North America	10510853,8...	5366575,7098	0,00	0,00	DC3E9EAO-7950-4431-9428-99DBCBC338...	2002-06-01 00:00:00.000
5	5	Southwest	US	North America	2538667,2515	3925071,4318	0,00	0,00	6DC4165A-5E4C-42D2-809D-4344E0AC75...	2002-06-01 00:00:00.000
6	6	Canada	CA	North America	6771829,1376	5693988,86	0,00	0,00	06B4AF8A-1639-476E-9266-110461D66B00	2002-06-01 00:00:00.000
7	7	France	FR	Europe	4772398,3078	2396539,7601	0,00	0,00	BF806804-9B4C-4B07-9D19-706F2E689552	2002-06-01 00:00:00.000
8	8	Germany	DE	Europe	3805202,3478	1307949,7917	0,00	0,00	6D2450DB-8159-414F-A917-E73EE91C38A9	2002-06-01 00:00:00.000
9	9	Australia	AU	Pacific	5977814,9154	2278548,9776	0,00	0,00	602E612E-DFE9-41D9-B894-27E489747885	2002-06-01 00:00:00.000
10	10	United Kingdom	GB	Europe	5012905,3656	1635823,3967	0,00	0,00	05FC7E1F-2DEA-414E-9ECD-09D150516F...	2002-06-01 00:00:00.000
11	11	Test Sales	TTT	Test Group	3,30	2,20	4,40	1,10	21C44465-6964-4A6F-AF0B-AACD9AA416...	2005-06-01 00:00:00.000

Query executed successfully. LAPTOP-H84PQ7E9\SQLEXPRESS ... LAPTOP-H84PQ7E9\Asus (54) AdventureWorks2012 00:00:00 11 rows

```

DELETE FROM View_CountryRegionSales
WHERE CountryRegionCode = 'TTT'

SELECT * FROM Person.CountryRegion
SELECT * FROM Sales.SalesTerritory

```

100 %

Results Messages

213	TO	Tonga	2002-06-01 00:00:00.000
214	TR	Turkey	2002-06-01 00:00:00.000
215	TT	Test2	2020-10-31 21:57:42.230
216	TV	Tuvalu	2002-06-01 00:00:00.000
217	TW	Taiwan	2002-06-01 00:00:00.000
218	TZ	Tanzania	2002-06-01 00:00:00.000
219	UA	Ukraine	2002-06-01 00:00:00.000
220	UG	Uganda	2002-06-01 00:00:00.000

Territor...	Name	CountryRegionC...	Group	SalesYTD	SalesLastYear	CostY...	CostLastY...	rowguid	ModifiedDate	
3	3	Central	US	North America	3072175,118	3205014,0767	0,00	0,00	DF6E7FD8-1A8D-468C-B103-ED8ADB452C1	2002-06-01 00:00:00.000
4	4	Southwest	US	North America	10510853,8739	5366575,7098	0,00	0,00	DC3E9EAO-7950-4431-9428-99DBCBC33865	2002-06-01 00:00:00.000
5	5	Southwest	US	North America	2538667,2515	3925071,4318	0,00	0,00	6DC4165A-5E4C-42D2-809D-4344E0AC75E7	2002-06-01 00:00:00.000
6	6	Canada	CA	North America	6771829,1376	5693988,86	0,00	0,00	06B4AF8A-1639-476E-9266-110461D66B00	2002-06-01 00:00:00.000
7	7	France	FR	Europe	4772398,3078	2396539,7601	0,00	0,00	BF806804-9B4C-4B07-9D19-706F2E689552	2002-06-01 00:00:00.000
8	8	Germany	DE	Europe	3805202,3478	1307949,7917	0,00	0,00	6D2450DB-8159-414F-A917-E73EE91C38A9	2002-06-01 00:00:00.000
9	9	Australia	AU	Pacific	5977814,9154	2278548,9776	0,00	0,00	602E612E-DFE9-41D9-B894-27E489747885	2002-06-01 00:00:00.000
10	10	United K...	GB	Europe	5012905,3656	1635823,3967	0,00	0,00	05FC7E1F-2DEA-414E-9ECD-09D150516FB5	2002-06-01 00:00:00.000

Query executed successfully. LAPTOP-H84PQ7E9\SQLEXPRESS ... LAPTOP-H84PQ7E9\Asus (54) AdventureWorks2012 00:00:00 10 rows