

Лабораторная работа № 3

Вариант 5

Задание №1.

a)

```
ALTER TABLE dbo.Employee
ADD EmpNum int;
```

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Messages

Command(s) completed successfully.

dbo.Employee

Columns

- BusinessEntityID (int, not null)
- NationalIDNumber (nvarchar(15), not null)
- LoginID (nvarchar(256), not null)
- JobTitle (nvarchar(50), not null)
- BirthDate (date, not null)
- MaritalStatus (nchar(1), not null)
- Gender (nchar(1), not null)
- HireDate (date, not null)
- VacationHours (smallint, not null)
- SickLeaveHours (smallint, not null)
- ModifiedDate (date, null)
- EmpNum (int, null)**

b)

```
DECLARE @EmpTablVar TABLE (BusinessEntityID INT NOT NULL, NationalIDNumber NVARCHAR(15) NOT NULL, LoginID NVARCHAR(256) NOT NULL,
JobTitle NVARCHAR(50) NOT NULL, BirthDate DATE NOT NULL, MaritalStatus NCHAR(1) NOT NULL, Gender NCHAR(1) NOT NULL,
HireDate DATE NOT NULL, VacationHours SMALLINT NOT NULL, SickLeaveHours SMALLINT NOT NULL, ModifiedDate DATE, EmpNum INT)

INSERT INTO @EmpTablVar
(BusinessEntityID, NationalIDNumber, LoginID, JobTitle, BirthDate, MaritalStatus, Gender,
HireDate, VacationHours, SickLeaveHours, ModifiedDate, EmpNum)
SELECT
e.BusinessEntityID, e.NationalIDNumber, e.LoginID, e.JobTitle, e.BirthDate, e.MaritalStatus, e.Gender,
e.HireDate, hre.VacationHours, e.SickLeaveHours, e.ModifiedDate, ROW_NUMBER() OVER(ORDER BY e.BusinessEntityID)
FROM dbo.Employee e
JOIN HumanResources.Employee hre ON hre.BusinessEntityID = e.BusinessEntityID;
```

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Messages

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Query executed successfully. DESKTOP-BQ2S6CB\SQLEXPRESS ... DESKTOP-BQ2S6CB\margo ...

c)

```
UPDATE dbo.Employee
SET
    VacationHours = CASE WHEN etv.VacationHours > 0
    THEN etv.VacationHours END,
    EmpNum = etv.EmpNum
FROM dbo.Employee e
JOIN @EmpTablVar etv ON etv.BusinessEntityID = e.BusinessEntityID;
```

100 % <

Messages

(9 row(s) affected)

100 % <

Query executed successfully.

d)

```
select e.* from dbo.Employee e
JOIN Person.Person p ON e.BusinessEntityID = p.BusinessEntityID
WHERE p.EmailPromotion = 0;
```

100 %

Results Messages

	BusinessEntit...	NationalIDNum...	LoginID	JobTi...	BirthDate	MaritalStat...	Gen...	HireDate	VacationHo...	SickLeaveHo...	ModifiedD...	EmpNum
1	252	792847334	adventure-works\arvind0	Buyer	1968-09-21	M	M	2003-04-01	60	50	2008-07-31	2
2	253	407505660	adventure-works\linda2	Buyer	1964-12-31	M	F	2004-01-18	56	48	2008-07-31	3
3	254	482810518	adventure-works\fukiko0	Buyer	1964-12-25	M	M	2004-02-05	57	48	2008-07-31	4
4	255	466142721	adventure-works\gord...	Buyer	1960-12-30	M	M	2004-02-12	52	46	2008-07-31	5
5	256	367453993	adventure-works\frank2	Buyer	1946-06-13	M	M	2004-02-24	58	49	2008-07-31	6
6	258	785853949	adventure-works\erin0	Buyer	1965-02-04	S	F	2004-03-03	53	46	2008-07-31	8
7	259	20269531	adventure-works\ben0	Buyer	1967-07-05	M	M	2004-04-09	55	47	2008-07-31	9

```
DELETE dbo.Employee FROM dbo.Employee e
JOIN Person.Person p on p.BusinessEntityID = e.BusinessEntityID
WHERE p.EmailPromotion = 0;
```

100 %

Messages

100 %

Query executed successfully.

```
select e.* from dbo.Employee e
JOIN Person.Person p ON e.BusinessEntityID = p.BusinessEntityID
WHERE p.EmailPromotion = 0;
```

```
DELETE dbo.Employee FROM dbo.Employee e
JOIN Person.Person p on p.BusinessEntityID = e.BusinessEntityID
WHERE p.EmailPromotion = 0;
```

100 %

Results Messages

	BusinessEntit...	NationalIDNum...	Login...	JobTi...	BirthD...	MaritalStat...	Gen...	HireD...	VacationHo...	SickLeaveHo...	ModifiedD...	EmpNum
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e)

```
SELECT *
FROM AdventureWorks2012.INFORMATION_SCHEMA.CONSTRAINT_TABLE_USAGE
WHERE TABLE_SCHEMA = 'dbo' AND TABLE_NAME = 'Employee';

SELECT default_constraints.*
FROM sys.all_columns
INNER JOIN sys.tables ON all_columns.object_id = tables.object_id
INNER JOIN sys.schemas ON tables.schema_id = schemas.schema_id
INNER JOIN sys.default_constraints ON all_columns.default_object_id = default_constraints.object_id
WHERE schemas.name = 'dbo' AND tables.name = 'Employee';
```

100 %

Results Messages

	TABLE_CATALOG	TABLE_SCHE...	TABLE_NA...	CONSTRAINT_CATAL...	CONSTRAINT_SCHE...	CONSTRAINT_NAME
1	AdventureWorks2012	dbo	Employee	AdventureWorks2012	dbo	UC_NationalIDNumber
2	AdventureWorks2012	dbo	Employee	AdventureWorks2012	dbo	chk_vacation_hours_mb_positive

	name	object_id	principal...	schema...	parent_object...	ty...	type_desc	create_date	modify_date	is_ms_shipp...	is_publish...	is_schema_publis...	parent_coli
1	DF_VacationHours	663673412	NULL	1	615673241	D	DEFAULT_CONSTRAINT	2020-10-31 13:41:55.827	2020-10-31 13:41:55.827	0	0	0	9

```
ALTER TABLE dbo.Employee DROP COLUMN EmpNum;
ALTER TABLE dbo.Employee DROP CONSTRAINT UC_NationalIDNumber, chk_vacation_hours_mb_positive, DF_VacationHours;
```

100 %

Messages

Command(s) completed successfully.

```

SELECT *
FROM AdventureWorks2012.INFORMATION_SCHEMA.CONSTRAINT_TABLE_USAGE
WHERE TABLE_SCHEMA = 'dbo' AND TABLE_NAME = 'Employee';

SELECT default_constraints.*
FROM sys.all_columns
INNER JOIN sys.tables ON all_columns.object_id = tables.object_id
INNER JOIN sys.schemas ON tables.schema_id = schemas.schema_id
INNER JOIN sys.default_constraints ON all_columns.default_object_id = default_constraints.object_id
WHERE schemas.name = 'dbo' AND tables.name = 'Employee';

ALTER TABLE dbo.Employee DROP COLUMN EmplNum;
ALTER TABLE dbo.Employee DROP CONSTRAINT UC_NationalIDNumber, chk_vacation_hours_mb_positive, DF_VacationHours;

```

100 %

Results Messages

TABLE_CATAL...	TABLE_SCHE...	TABLE_NA...	CONSTRAINT_CATAL...	CONSTRAINT_SCHE...	CONSTRAINT_NA...
name	object...	principal...	schema...	parent_object...	ty...
type_d...	create_d...	modify_d...	is_ms_shipp...	is_publish...	is_schema_publis...
parent_column...	definiti...	is_system_nam...			

f)

```

DROP TABLE dbo.Employee;

```

100 %

Messages

Command(s) completed successfully.

Задание №2.

a)

```

SQLQuery1.sql - D...2S6CB\margo (55))* X V15_1.sql - DESKTOP...Q2S6
USE AdventureWorks2012;

ALTER TABLE dbo.Employee
ADD SumTotal MONEY,
    SumTaxAmt MONEY,
    WithoutTax AS (SumTaxAmt - SumTotal);

```

100 %

Messages

Command(s) completed successfully.

b)

```

SELECT e.BusinessEntityID, e.NationalIDNumber, e.LoginID,
e.JobTitle, e.BirthDate, e.MaritalStatus, e.Gender, e.HireDate,
e.VacationHours, e.SickLeaveHours, e.ModifiedDate, e.SumTotal, e.SumTaxAmt
INTO #Employee
FROM dbo.Employee e
WHERE 1 = 0

```

100 %

Messages

(0 row(s) affected)

100 %

Query executed successfully. DESKTOP-BQ2S6CB\SQL

c)

```
INSERT INTO #Employee
    (BusinessEntityID, NationalIDNumber, LoginID, JobTitle, BirthDate, MaritalStatus,
    Gender, HireDate, VacationHours, SickLeaveHours, ModifiedDate, SumTotal, SumTaxAmt)
SELECT e.BusinessEntityID, e.NationalIDNumber, e.LoginID, e.JobTitle, e.BirthDate, e.MaritalStatus,
    e.Gender, e.HireDate, e.VacationHours, e.SickLeaveHours, e.ModifiedDate, e.SumTotal, e.SumTaxAmt
FROM dbo.Employee e
```

100 %
Messages

(9 row(s) affected)

```
SELECT SumTaxAmt, SumTotal FROM #Employee;
```

100 %

Results Messages

	SumTaxAmt	SumTo...
1	NULL	NULL
2	NULL	NULL
3	NULL	NULL
4	NULL	NULL
5	NULL	NULL
6	NULL	NULL
7	NULL	NULL
8	NULL	NULL
9	NULL	NULL

```
UPDATE #Employee
SET #Employee.SumTotal = f.sum1, #Employee.SumTaxAmt = f.sum2
FROM #Employee
INNER JOIN
(
    SELECT EmployeeID, SUM(TotalDue) sum1, SUM(TaxAmt) sum2
    FROM Purchasing.PurchaseOrderHeader
    GROUP BY EmployeeID
) f ON #Employee.BusinessEntityID = f.EmployeeID
SELECT SumTaxAmt, SumTotal FROM #Employee;
```

100 %

Results Messages

	SumTaxAmt	SumTotal
1	537873,7177	7426610,6434
2	215633,5762	2978027,3706
3	537441,5337	7423411,2039
4	476653,9121	6578521,3325
5	456478,9729	6305115,8315
6	474407,8164	6552648,5738
7	502647,294	6942815,7662
8	402407,664	5556272,2301
9	375459,337	5186032,1159

d)

```
SELECT * FROM dbo.Employee WHERE MaritalStatus = 'S';
DELETE FROM dbo.Employee WHERE MaritalStatus = 'S';
SELECT * FROM dbo.Employee WHERE MaritalStatus = 'S';
```

100 %

Results Messages

	BusinessEntit...	NationalIDNum...	LoginID	JobTi...	BirthDate	MaritalStat...	Gen...	HireDate	VacationHo...	SickLeaveHo...	ModifiedD...	SumTo...	Si
1	251	603686790	adventure-works/mikael0	Buyer	1978-09-18	S	M	2003-03-14	144	49	2008-07-31	NULL	N
2	257	381073001	adventure-works/eric2	Buyer	1966-10-19	S	M	2004-02-28	144	47	2008-07-31	NULL	N
3	258	785853949	adventure-works/erin0	Buyer	1965-02-04	S	F	2004-03-03	144	46	2008-07-31	NULL	N

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BusinessEntit...	NationalIDNum...	Login...	JobTi...	BirthD...	MaritalStat...	Gen...	HireD...	VacationHo...	SickLeaveHo...	ModifiedD...	SumTo...	SumTaxA...	WithoutT...
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e)

```
MERGE INTO dbo.Employee AS Target
USING dbo.#Employee
ON Target.BusinessEntityID = #Employee.BusinessEntityID
WHEN MATCHED THEN UPDATE SET
    SumTotal = #Employee.SumTotal,
    SumTaxAmt = #Employee.SumTaxAmt
WHEN NOT MATCHED BY TARGET THEN
    INSERT (
        BusinessEntityID,
        NationalIDNumber,
        LoginID,
        JobTitle,
        BirthDate,
        MaritalStatus,
        Gender,
        HireDate,
        VacationHours,
        SickLeaveHours,
        ModifiedDate,
        SumTotal,
        SumTaxAmt
    ) VALUES (
        #Employee.BusinessEntityID,
        #Employee.NationalIDNumber,
        #Employee.LoginID,
        #Employee.JobTitle,
        #Employee.BirthDate,
        #Employee.MaritalStatus,
        #Employee.Gender,
        #Employee.HireDate,
        #Employee.VacationHours,
        #Employee.SickLeaveHours,
        #Employee.ModifiedDate,
        #Employee.SumTotal,
        #Employee.SumTaxAmt
    )
WHEN NOT MATCHED BY SOURCE THEN
    DELETE;
GO
```

0 %

Messages

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Query executed successfully.