Вариант 10

Дубовская Екатерина, 751001

Задание 1

1. добавьте в таблицу dbo.Employee поле Name типа nvarchar размерностью 60 символов;

Results | Messages

	Name	Own...	Type	Created_datetime
1	Employee	dbo	user table	2020-09-12 15:42:15.100

	Column_name	Type	Comput...	Len...	Pr...	Sc...	Nulla...	TrimTrailingBla...	FixedLenNullInSou...	Collation
6	MaritalStatus	nvarchar	no	2			yes	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
7	Gender	nchar	no	2			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
8	HireDate	date	no	3	10	0	no	(n/a)	(n/a)	NULL
9	VacationHours	smallint	no	2	5	0	no	(n/a)	(n/a)	NULL
10	SickLeaveHours	smallint	no	2	5	0	no	(n/a)	(n/a)	NULL
11	ModifiedDate	datetime	no	8			no	(n/a)	(n/a)	NULL
12	ID	bigint	no	8	19	0	no	(n/a)	(n/a)	NULL
13	Name	nvarchar	no	120			yes	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS

	Identity	Se...	Increm...	Not For Replicat...
1	ID	0	2	0

	RowGuidCol
1	No rowguidcol column defined.

	Data_located_on_filegr...
1	PRIMARY

	constraint_type	constraint_name	delete_acti...	update_act...	status_enab...	status_for_replica...	constraint_keys
1	CHECK on column BirthDate	CK__Employee__BirthD__5FD33367	(n/a)	(n/a)	Enabled	Is_For_Replication	([BirthDate]>CONVERT([datetime],'19000101',
2	DEFAULT on column HireDate	DF__Employee__HireDa__60C757A0	(n/a)	(n/a)	(n/a)	(n/a)	(getdate())

Table is referenced by vi...

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 19 rows

2. объявите табличную переменную с такой же структурой как dbo.Employee и заполните ее данными из dbo.Employee. Поле Name заполните данными таблицы Person.Person, из полей Title и FirstName. Если Title содержит null значение, замените его на ‘M.’;
3. обновите поле Name в dbo.Employee данными из табличной переменной;

100 % | Results | Messages

	BusinessEntit...	NationalIDNum...	LoginID	JobTitle	BirthDate	MaritalStat...	Gen...	HireDate	Vacation...	SickLeav...	ModifiedDate	Name
1	1	295847284	adventure-works\ken0	Chief Executive O...	1963-03-02	S	M	2020-09-12	99	69	2008-07-31 00:00:00.000	M.Ken
2	3	509647174	adventure-works\roberto0	Engineering Man...	1968-12-13	M	M	2020-09-12	2	21	2008-07-31 00:00:00.000	M.Roberto
3	4	112457891	adventure-works\rob0	Senior Tool Desi...	1969-01-23	S	M	2020-09-12	48	80	2008-07-31 00:00:00.000	M.Rob
4	5	695256908	adventure-works\gail0	Design Engineer	1946-10-29	M	F	2020-09-12	5	22	2008-07-31 00:00:00.000	Ms.Gail
5	6	998320692	adventure-works\jossef0	Design Engineer	1953-04-11	M	M	2020-09-12	6	23	2008-07-31 00:00:00.000	Mr.Jossef
6	8	811994146	adventure-works\diane1	Research and De...	1980-07-06	S	F	2020-09-12	62	51	2008-07-31 00:00:00.000	M.Diane
7	9	658797903	adventure-works\gigi0	Research and De...	1973-02-21	M	F	2020-09-12	63	51	2008-07-31 00:00:00.000	M.Gigi
8	11	974026903	adventure-works\ovidiu0	Senior Tool Desi...	1972-02-18	S	M	2020-09-12	7	23	2008-07-31 00:00:00.000	M.Ovidiu
9	22	95958330	adventure-works\sariya0	Marketing Special...	1981-06-21	S	M	2020-09-12	45	42	2008-07-31 00:00:00.000	M.Sariya
10	23	767955365	adventure-works\mary0	Marketing Special...	1956-10-14	M	F	2020-09-12	46	43	2008-07-31 00:00:00.000	M.Mary
11	24	72636981	adventure-works\jill0	Marketing Special...	1973-07-19	M	F	2020-09-12	47	43	2008-07-31 00:00:00.000	Ms.Jill

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 162 rows

Results | Messages

```
(162 row(s) affected)
```

4. удалите из dbo.Employee сотрудников, которые хотя бы раз меняли отдел (таблица HumanResources.EmployeeDepartmentHistory);

Results | Messages

	BusinessEntit...	NationalIDNum...	LoginID	JobTitle	BirthDate	MaritalStat...	Gen...	HireDate	VacationHo...	SickLeaveHo...	ModifiedDate	ID	Name
1	22	95958330	adventure-works\sariya0	Marketing Specialist	1981-06-21	S	M	2020-09-29	45	42	2008-07-31 00:00:00.000	0	M.Sariya
2	23	767955365	adventure-works\mary0	Marketing Specialist	1956-10-14	M	F	2020-09-29	46	43	2008-07-31 00:00:00.000	2	M.Mary
3	24	72636981	adventure-works\jill0	Marketing Specialist	1973-07-19	M	F	2020-09-29	47	43	2008-07-31 00:00:00.000	4	Ms.Jill
4	25	519899904	adventure-works\james1	Vice President of Production	1977-02-07	S	M	2020-09-29	64	52	2008-07-31 00:00:00.000	6	M.James
5	26	277173473	adventure-works\peter0	Production Control Manager	1976-12-04	M	M	2020-09-29	43	41	2009-01-26 09:17:08.637	8	M.Peter
6	27	446466105	adventure-works\jo0	Production Supervisor - W...	1950-11-09	S	F	2020-09-29	80	60	2008-07-31 00:00:00.000	1..	M.Jo
7	28	14417807	adventure-works\guy1	Production Technician - W...	1976-05-15	M	M	2020-09-29	21	30	2008-07-31 00:00:00.000	1..	M.Guy
8	11	974026903	adventure-works\ovidiu0	Senior Tool Designer	1972-02-18	S	M	2020-09-29	7	23	2008-07-31 00:00:00.000	1..	M.Ovidiu
9	9	658797903	adventure-works\gigi0	Research and Developme...	1973-02-21	M	F	2020-09-29	63	51	2008-07-31 00:00:00.000	1..	M.Gigi
10	8	811994146	adventure-works\diane1	Research and Developme...	1980-07-06	S	F	2020-09-29	62	51	2008-07-31 00:00:00.000	1..	M.Diane
11	6	998320692	adventure-works\jossef0	Design Engineer	1953-04-11	M	M	2020-09-29	6	23	2008-07-31 00:00:00.000	2..	Mr.Jos...
12	5	695256908	adventure-works\gail0	Design Engineer	1946-10-29	M	F	2020-09-29	5	22	2008-07-31 00:00:00.000	2..	Ms.Gail
13	3	509647174	adventure-works\rober...	Engineering Manager	1968-12-13	M	M	2020-09-29	2	21	2008-07-31 00:00:00.000	2..	M.Rob...
14	1	295847284	adventure-works\ken0	Chief Executive Officer	1963-03-02	S	M	2020-09-29	99	69	2008-07-31 00:00:00.000	2..	M.Ken
15	30	410742000	adventure-works\britta0	Production Technician - W...	1983-10-30	M	F	2020-09-29	14	27	2008-07-31 00:00:00.000	3..	M.Britta
16	33	801758002	adventure-works\annik0	Production Technician - W...	1971-01-27	M	M	2020-09-29	17	28	2008-07-31 00:00:00.000	3..	M.Annik
17	37	442121106	adventure-works\chris2	Production Technician - W...	1980-09-07	S	M	2020-09-29	16	28	2008-07-31 00:00:00.000	3..	M.Chris
18	59	843479922	adventure-works\bob0	Production Technician - W...	1973-09-16	S	M	2020-09-29	12	26	2008-07-31 00:00:00.000	3..	M.Bob
19	61	92096924	adventure-works\diane2	Production Technician - W...	1983-09-10	S	F	2020-09-29	8	24	2008-07-31 00:00:00.000	3..	M.Diane
20	63	414476027	adventure-works\maci...	Production Technician - W...	1949-03-02	S	M	2020-09-29	30	35	2008-07-31 00:00:00.000	4..	M.Maciej
21	65	8066363	adventure-works\randy0	Production Technician - W...	1964-05-29	M	M	2020-09-29	29	34	2008-07-31 00:00:00.000	4..	M.Randy
22	67	63179277	adventure-works\jay0	Production Technician - W...	1970-03-14	S	M	2020-09-29	32	36	2008-07-31 00:00:00.000	4..	M.Jay
23	70	36151748	adventure-works\david2	Production Technician - W...	1979-01-30	M	M	2020-09-29	33	36	2008-07-31 00:00:00.000	4..	M.David
24	39	461786517	adventure-works\ed0	Production Technician - W...	1965-10-12	S	M	2020-09-29	25	32	2008-07-31 00:00:00.000	4..	M.Ed

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 160 rows

5. удалите поле Name из таблицы, удалите все созданные ограничения и значения по умолчанию.

Имена ограничений вы можете найти в метаданных. Например:

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

Имена значений по умолчанию найдите самостоятельно, приведите код, которым пользовались для поиска;

```
ALTER TABLE dbo.Employee DROP CONSTRAINT [birth_date_check];ALTER TABLE dbo.Employee DROP CONSTRAINT [default_type];
```

100 %

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 0 rows

Results | Messages

	Name	Own...	Type	Created_datetime
1	Employee	dbo	user table	2020-09-29 20:56:25.553

	Column_name	Type	Comput...	Len...	Pr...	Sc...	Nulla...	TrimTrailingBla...	FixedLenNullInSou...	Collation
1	BusinessEntityID	int	no	4	10	0	no	(n/a)	(n/a)	NULL
2	NationalIDNumber	nvarchar	no	30			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
3	LoginID	nvarchar	no	512			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
4	JobTitle	nvarchar	no	100			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
5	BirthDate	date	no	3	10	0	no	(n/a)	(n/a)	NULL
6	MaritalStatus	nchar	no	2			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
7	Gender	nchar	no	2			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
8	HireDate	date	no	3	10	0	no	(n/a)	(n/a)	NULL

	Identity	Se...	Increm...	Not For Replicat...
1	ID	0	2	0

	RowGuidCol
1	No rowguidcol column defined.

	Data_located_on_filegr...
1	PRIMARY

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 16 rows

6. удалите таблицу dbo.Employee.

```sql
-- Lab 3, Task 1, 6
DROP TABLE
    dbo.Employee
```

```
Messages
Command(s) completed successfully.
```

Задание 2

1. Выполните код, созданный во втором задании второй лабораторной работы. Добавьте в таблицу dbo.Employee поле SumSubTotal MONEY. Также создайте в таблице вычисляемое поле LeaveHours, вычисляющее сумму часов отпуска и больничных в полях VacationHours и SickLeaveHours.

Results | Messages

	Name	Own...	Type	Created_datetime
1	Employee	dbo	user table	2020-10-31 19:41:43.363

	Column_name	Type	Comput...	Len...	Pr...	Sc...	Nulla...	TrimTrailingBla...	FixedLenNullInSou...	Collation
7	Gender	nchar	no	2			no	(n/a)	(n/a)	SQL_Latin1_General_CP1_CI_AS
8	HireDate	date	no	3	10	0	no	(n/a)	(n/a)	NULL
9	VacationHours	smallint	no	2	5	0	no	(n/a)	(n/a)	NULL
10	SickLeaveHours	smallint	no	2	5	0	no	(n/a)	(n/a)	NULL
11	ModifiedDate	datetime	no	8			no	(n/a)	(n/a)	NULL
12	ID	bigint	no	8	19	0	no	(n/a)	(n/a)	NULL
13	SumSubTotal	money	no	8	19	4	yes	(n/a)	(n/a)	NULL
14	LeaveHours	smallint	yes	2	5	0	yes	(n/a)	(n/a)	NULL

	Identity	Se...	Increm...	Not For Replicat...
1	ID	0	2	0

	RowGuidCol
1	No rowguidcol column defined.

	Data_located_on_filegr...
1	PRIMARY

	constraint_type	constraint_name	delete_acti...	update_act...	status_enab...	status_for_replica...	constraint_keys
1	CHECK on column BirthDate	birth_date_check	(n/a)	(n/a)	Enabled	Is_For_Replication	([BirthDate]>CONVERT([datetime],'19000101',(11...
2	DEFAULT on column HireDate	default_type	(n/a)	(n/a)	(n/a)	(n/a)	(getdate())

	Table is referenced by vi...

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 20 rows

2. создайте временную таблицу #Employee, с первичным ключом по полю ID. Временная таблица должна включать все поля таблицы dbo.Employee за исключением поля LeaveHours.

3. заполните временную таблицу данными из dbo.Employee. Посчитайте общую сумму без учета налогов и стоимости доставки (SubTotal), на которую сотрудник (EmployeeID) оформил заказов в таблице Purchasing.PurchaseOrderHeader и заполните этими значениями поле SumSubTotal. Подсчет суммы осуществите в Common Table Expression (CTE).

```
SET IDENTITY_INSERT dbo.Employee ON
```

100 %

Results | Messages

	ID	BusinessEntit...	NationalIDNum...	LoginID	JobTitle	BirthDate	MaritalStat...	Gen...	HireDate	VacationHo...	SickLeaveHo...	ModifiedDate
1	250	252	792847334	adventure-works\arvind0	Buyer	1968-09-21	M	M	2020-10-31	60	50	2008-07-31 00:00:00.000
2	278	250	895209680	adventure-works\sheela0	Purchasing Manager	1972-03-13	S	F	2020-10-31	49	44	2008-07-31 00:00:00.000
3	282	253	407505660	adventure-works\linda2	Buyer	1964-12-31	M	F	2020-10-31	56	48	2008-07-31 00:00:00.000
4	296	254	482810518	adventure-works\fukiko0	Buyer	1964-12-25	M	M	2020-10-31	57	48	2008-07-31 00:00:00.000
5	298	255	466142721	adventure-works\gordon0	Buyer	1960-12-30	M	M	2020-10-31	52	46	2008-07-31 00:00:00.000
6	300	256	367453993	adventure-works\frank2	Buyer	1946-06-13	M	M	2020-10-31	58	49	2008-07-31 00:00:00.000
7	302	258	785853949	adventure-works\erin0	Buyer	1965-02-04	S	F	2020-10-31	53	46	2008-07-31 00:00:00.000
8	304	259	20269531	adventure-works\ben0	Buyer	1967-07-05	M	M	2020-10-31	55	47	2008-07-31 00:00:00.000

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 8 rows

4. удалите из таблицы dbo.Employee строки, где LeaveHours > 160

```
-- Task 3,2 4
DELETE
FROM dbo.Employee
WHERE LeaveHours > 160
```

100 %

Messages

```
(9 row(s) affected)
```

5. напишите Merge выражение, использующее dbo.Employee как target, а временную таблицу как source. Для связи target и source используйте ID. Обновите поле SumSubTotal, если запись присутствует в source и target. Если строка присутствует во временной таблице, но не существует в target, добавьте строку в dbo.Employee. Если в dbo.Employee присутствует такая строка, которой не существует во временной таблице, удалите строку из dbo.Employee.

```
DELETE;

Select * FROM dbo.Employee;

-- Select * FROM #Employee;
```

00 %

Results | Messages

	LoginID	JobTitle	BirthDate	MaritalStat...	Gen...	HireDate	VacationHo...	SickLeaveHo...	ModifiedDate	ID	SumSubTotal	LeaveHo...
1	adventure-works\arvind0	Buyer	1968-09-21	M	M	2020-10-31	60	50	2008-07-31 00:00:00.000	250	2695419,708	110
2	adventure-works\sheela0	Purchasing Manager	1972-03-13	S	F	2020-10-31	49	44	2008-07-31 00:00:00.000	278	2263903,2045	93
3	adventure-works\linda2	Buyer	1964-12-31	M	F	2020-10-31	56	48	2008-07-31 00:00:00.000	282	6718019,1855	104
4	adventure-works\fukiko0	Buyer	1964-12-25	M	M	2020-10-31	57	48	2008-07-31 00:00:00.000	296	5958173,93	105
5	adventure-works\gordon0	Buyer	1960-12-30	M	M	2020-10-31	52	46	2008-07-31 00:00:00.000	298	5705987,175	98
6	adventure-works\frank2	Buyer	1946-06-13	M	M	2020-10-31	58	49	2008-07-31 00:00:00.000	300	5930097,722	107
7	adventure-works\erin0	Buyer	1965-02-04	S	F	2020-10-31	53	46	2008-07-31 00:00:00.000	302	5030095,8115	99
8	adventure-works\ben0	Buyer	1967-07-05	M	M	2020-10-31	55	47	2008-07-31 00:00:00.000	304	4693241,7315	102

Query executed successfully. | LAPTOP-FREPJAND (11.0 SP2) | LAPTOP-FREPJAND\Ekater... | AdventureWorks2012 | 00:00:00 | 8 rows