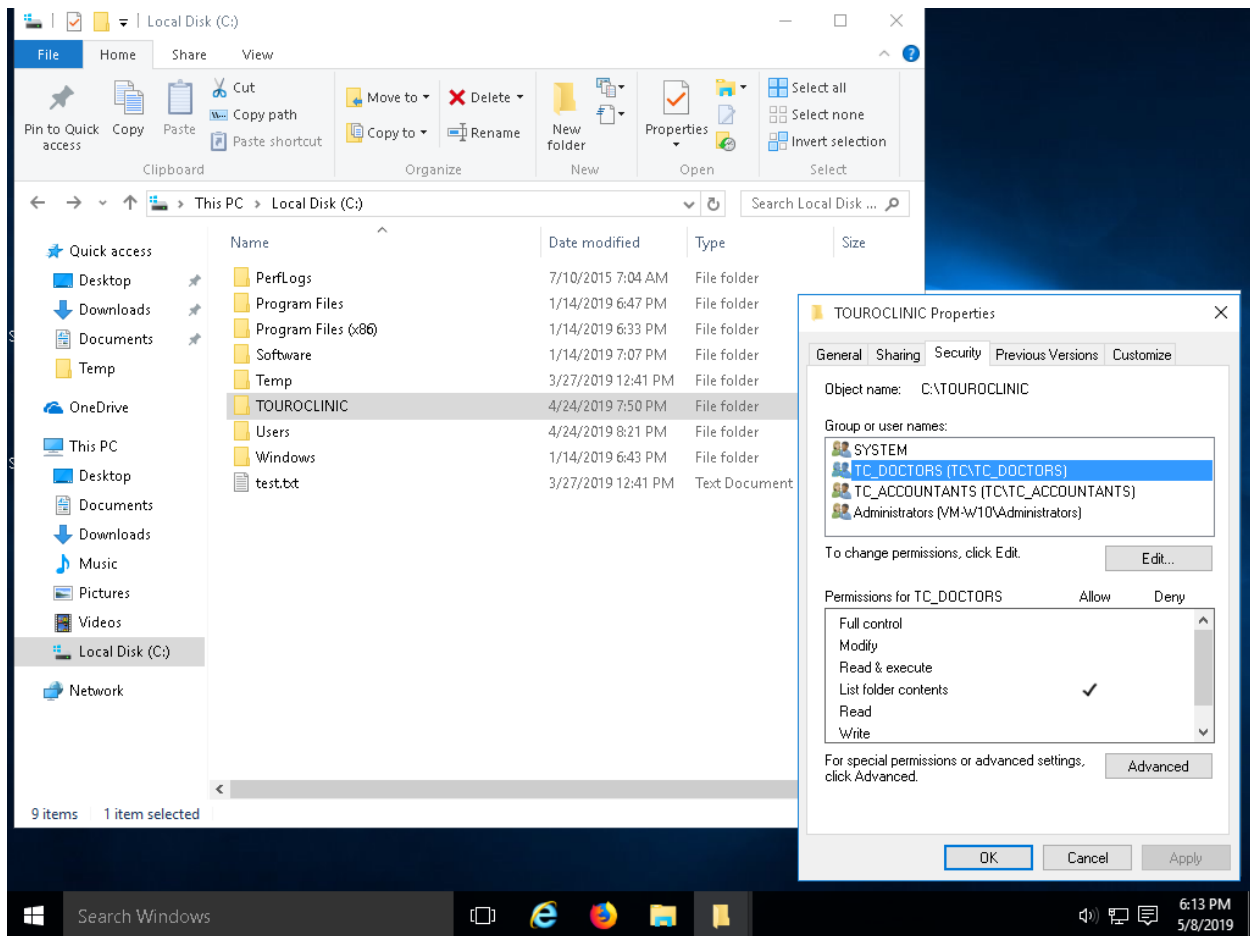
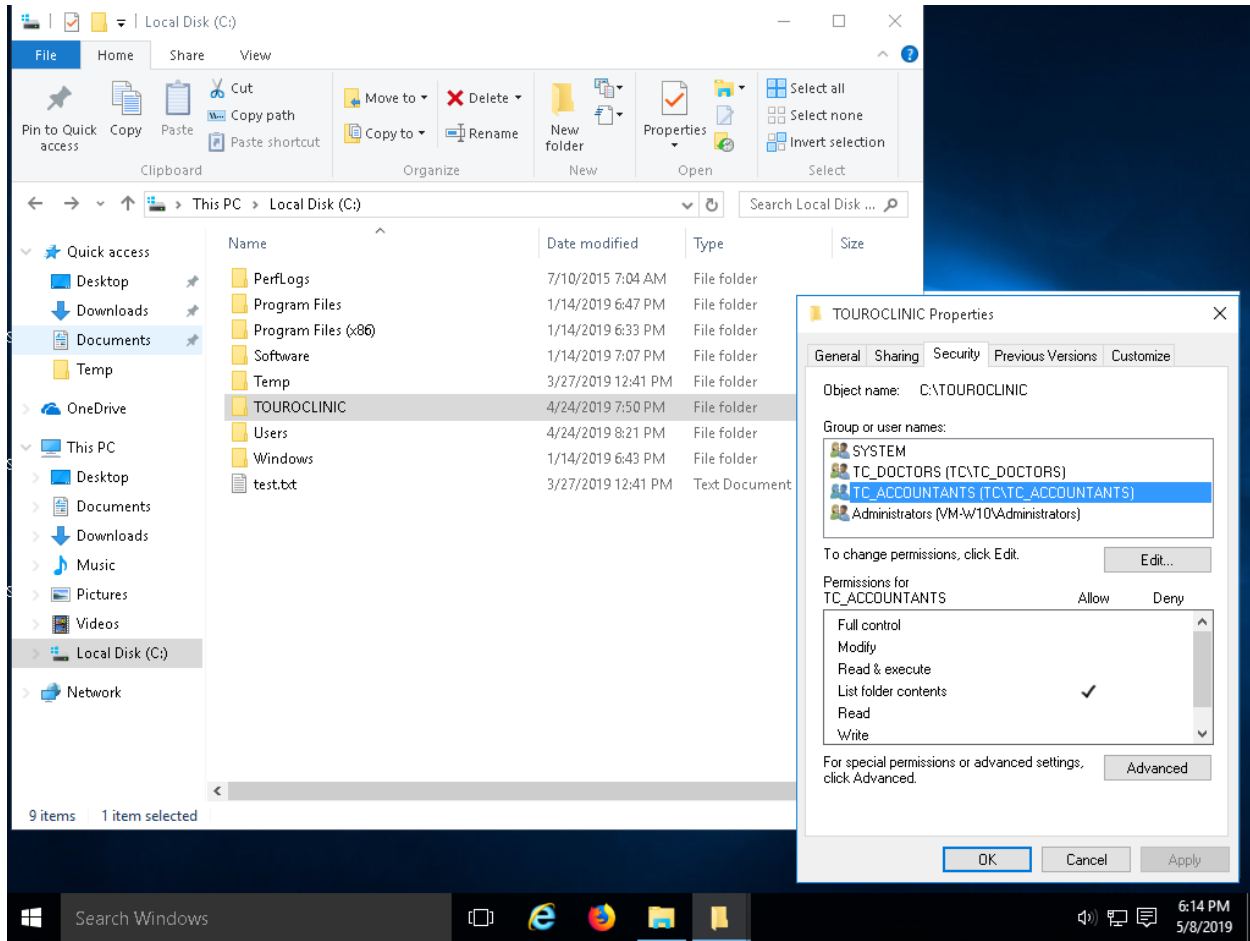


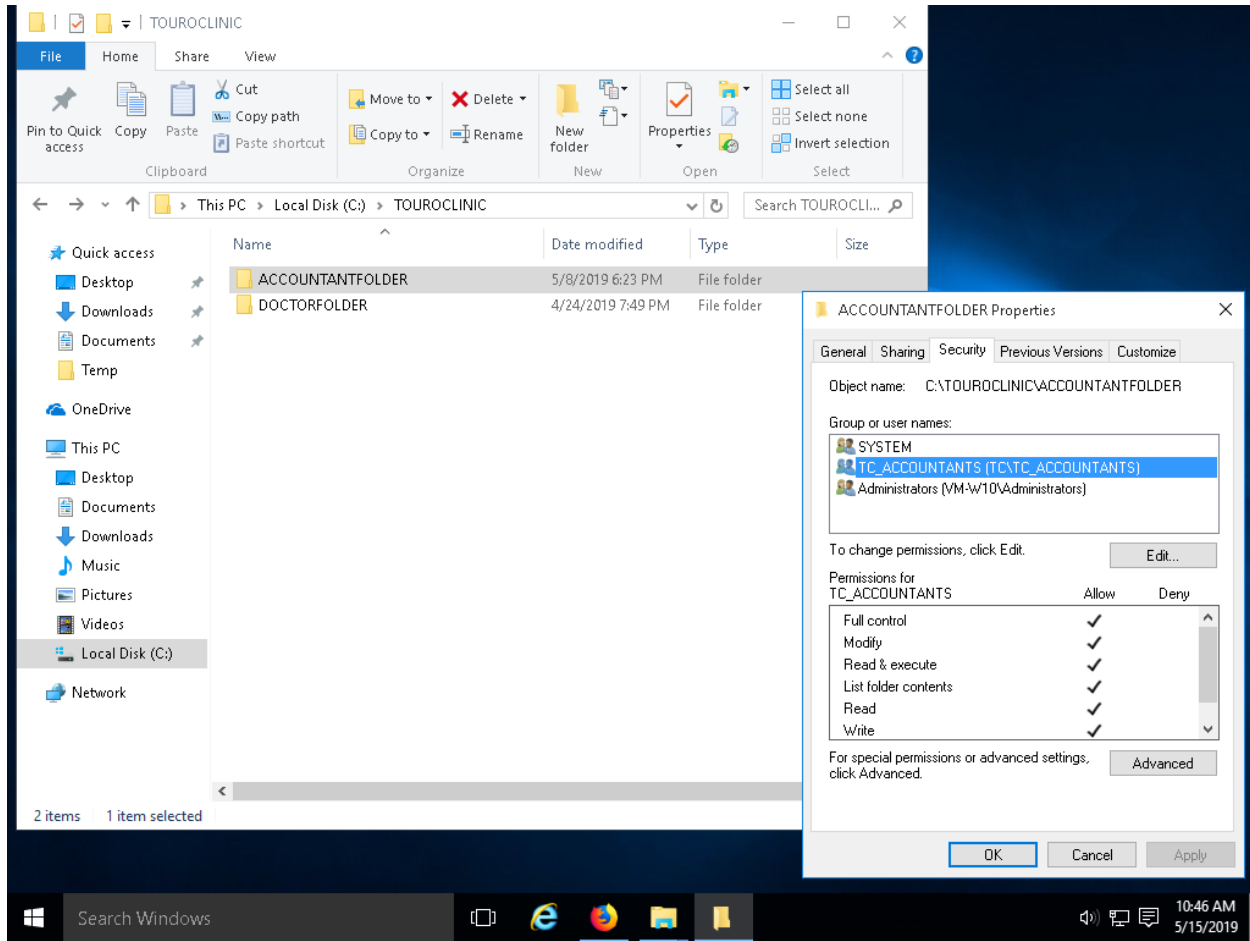
STEP 13 PART 1



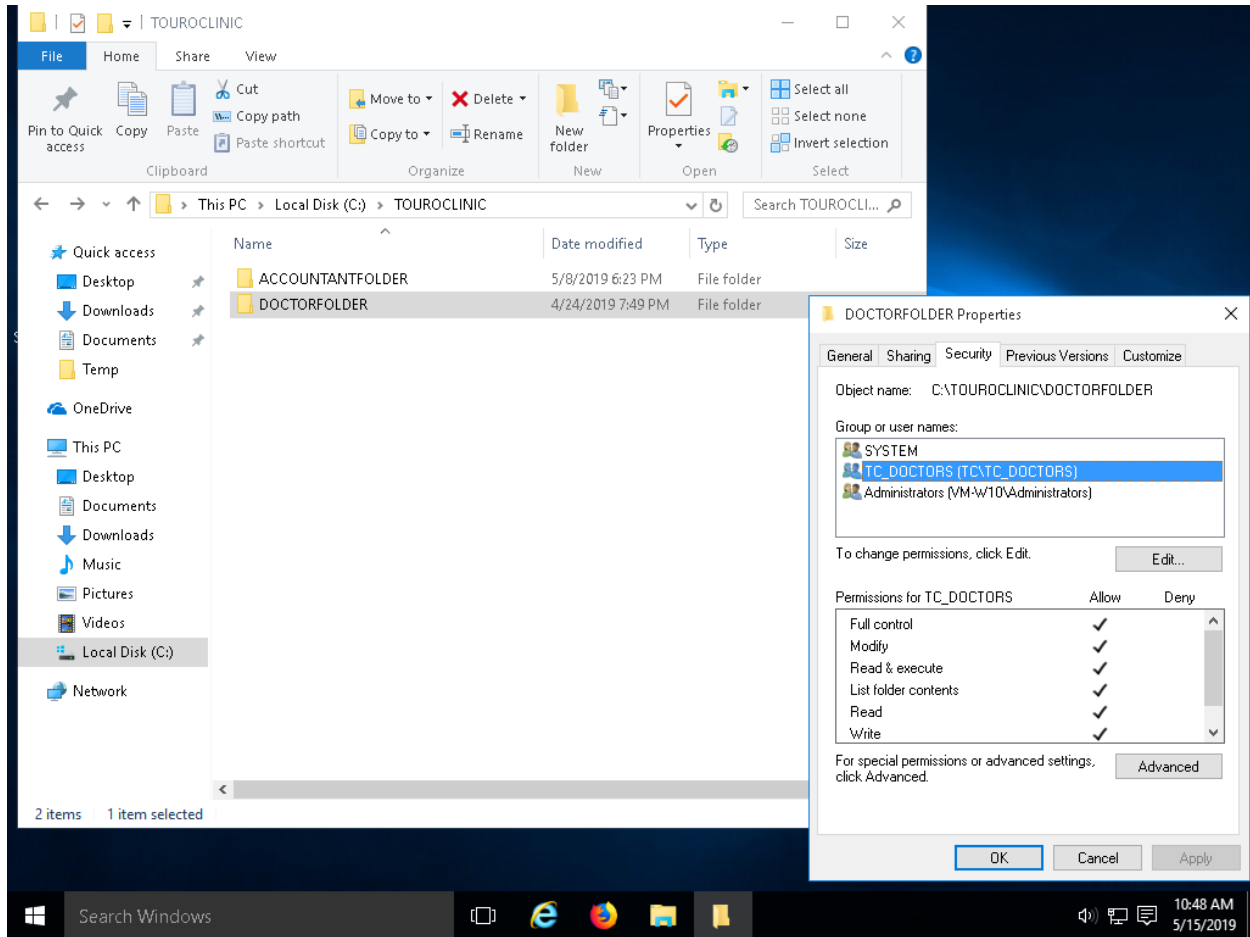
STEP 13 PART 2



STEP 13 PART 3



STEP 13 PART 4



STEP 16 (DATABASE ROLE AND PERMISSIONS)

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'Step16 & 17.sql - WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (57))*'. The menu bar includes File, Edit, View, Query, Project, Debug, Tools, Window, and Help. The toolbar contains icons for New Query, Open, Save, Undo, Redo, and others. The Object Explorer on the left shows the database structure for 'TouroClinic', including tables like 'dbo.Account', 'dbo.Customer', 'dbo.Deposit', and 'dbo.TransferFunds'. The main query editor displays the following SQL code:

```
--STEP16
select permission_name As DatabasePermissions ,dp.name As DatabaseRoles
from sys.database_role_members drm
inner join sys.database_permissions DPER
on drm.role_principal_id = DPER.grantee_principal_id
inner join sys.database_principals dp |
on drm.role_principal_id = dp.principal_id
```

The query results are displayed in a table with two columns: 'DatabasePermissions' and 'DatabaseRoles'. The results show 9 rows of data:

	DatabasePermissions	DatabaseRoles
1	EXECUTE	TC_BOOKKEEPERSRole
2	SELECT	TC_DOCTORSRole
3	SELECT	TC_RECEPTIONISTSRole
4	SELECT	TC_DOCTORSRole
5	SELECT	TC_RECEPTIONISTSRole
6	DELETE	TC_ACCOUNTANTSRole
7	INSERT	TC_ACCOUNTANTSRole
8	SELECT	TC_ACCOUNTANTSRole
9	UPDATE	TC_ACCOUNTANTSRole

The status bar at the bottom indicates 'Query executed successfully.' and shows the connection details: 'WS2016SQLD (14.0 RTM) | WS2016SQLD\Administrat... | TouroClinic | 00:00:00 | 9 rows'.

STEP 17(SERVER PERMISSIONS)

The screenshot shows the Microsoft SQL Server Management Studio (SSMS) interface. The title bar indicates the connection is to 'Step16 & 17.sql - WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (51))'.

The Object Explorer on the left shows the 'TouroClinic' database selected, with various system objects like Database Diagrams, Tables, Views, External Resources, Synonyms, Programmability, Service Broker, Storage, Security, and Users visible.

The main query window displays the following SQL script:

```
--Step 16 server level permissions that were assigned
SELECT distinct spe.permission_name AS [SERVER_PERMISSIONS]
FROM sys.database_role_members AS DRM
INNER JOIN sys.database_principals AS MEM
ON DRM.member_principal_id = MEM.principal_id
INNER JOIN sys.server_principals AS SP
ON MEM.[sid] = SP.[sid]
inner join sys.server_permissions as spe
on sp.principal_id= spe.grantee_principal_id

--STEP16 database level roles and permissions that were assigned
select permission_name As DatabasePermissions ,dp.name As DatabaseRoles
from sys.database_role_members drm
inner join sys.database_permissions DPER
on drm.role_principal_id = DPER.grantee_principal_id
inner join sys.database_principals dp
on drm.role_principal_id = dp.principal_id
```

The query results are displayed in the 'Results' tab, showing a table with the following data:

	SERVER_PERMISSIONS
1	CONNECT SQL
2	CREATE ANY DATABASE

The status bar at the bottom indicates 'Query executed succ...' and '2 rows'.

STEP 16 (SERVER ROLES)

Step16 & 17.sql - WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (51))* - Microsoft SQL Server Management Studio (A... QUICK EDITOR (Ctrl+Q)

File Edit View Query Project Debug Tools Window Help

Connect TouroClinic Execute Debug

Object Explorer

- EncryptPracticeDB
- HARRYDB
- Register
- TouroClinic
 - Database Diagrams
 - Tables
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - Users
 - Accountantuser
 - Bookkeeperuser
 - Dbuser
 - dbo
 - DoctorUser
 - guest
 - INFORMATION_SC
 - ITadminuser
 - Receptionistuser
 - sys
 - Roles
 - Schemas
 - Asymmetric Keys
 - Certificates
 - Symmetric Keys

Step16 & 17.sql - W...Administrator (51)* SQLQuery3.sql - WS...Administrator (66))*

```
--Step 16 server level permissions that were assigned
SELECT distinct spe.permission_name AS [SERVER_PERMISSIONS]
FROM sys.database_role_members AS DRM
INNER JOIN sys.database_principals AS MEM
ON DRM.member_principal_id = MEM.principal_id
INNER JOIN sys.server_principals AS SP
ON MEM.[sid] = SP.[sid]
inner join sys.server_permissions as spe
on sp.principal_id= spe.grantee_principal_id

--STEP16 database level roles and permissions that were assigned
select permission_name As DatabasePermissions ,dp.name As DatabaseRoles
from sys.database_role_members drm
inner join sys.database_permissions DPER
on drm.role_principal_id = DPER.grantee_principal_id
inner join sys.database_principals dp
on drm.role_principal_id = dp.principal_id
```

83 %

Results Messages

	SERVER_PERMISSIONS
1	CONNECT SQL
2	CREATE ANY DATABASE

Query executed succ... | WS2016SQLD (14.0 RTM) | WS2016SQLD\Administrat... | TouroClinic | 00:00:00 | 2 rows

STEP 17(DOCTOR)

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (57))'. The menu bar includes File, Edit, View, Query, Project, Debug, Tools, Window, and Help. The toolbar contains various icons for file operations, query execution, and debugging. The main query editor displays the following SQL script:

```
--STEP 17
select EmployeeID,FirstName,LastName,Birthdate,SocialSecNum,CellPhone,
HireDate,EmployeeType,PayrollType,CurrentPayAmount,TotalPayrollReceipts
from HR.EMPLOYEE

select DoctorID,EmergencyPhoneNumber,SpecialtyID
FROM HR.DOCTOR

select TransactionDate,EmpID,GrossPay,TaxWithHeld,AddAmtWithHeld,NetPay
from ACCOUNTING.PAYROLLTRANSACTIONS
```

Below the query editor, the 'Results' tab is active, showing a table with 5 rows and 3 columns: DoctorID, EmergencyPhoneNumber, and SpecialtyID. The data is as follows:

	DoctorID	EmergencyPhoneNumber	SpecialtyID
1	9	3472223333	4
2	10	3473334444	5
3	11	3474445555	1
4	12	3475556666	2
5	13	3476667777	3

The status bar at the bottom indicates 'Query executed successfully.' and provides additional details: 'WS2016SQLD (14.0 RTM) | WS2016SQLD\Administrat... | TouroClinic | 00:00:00 | 25 rows'.

STEP 17(EMPLOYEE)

Step16 & 17.sql - WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (57)) - Microsoft SQL Server Management Studio (Ad... Quick Launch (Ctrl+Q)

File Edit View Query Project Debug Tools Window Help

New Query

TouroClinic Execute Debug

Step16 & 17.sql - W...Administrator (57)) FinalProject steps -...Administrator (51))

--STEP 17

```
--STEP 17
select EmployeeID,FirstName ,LastName ,Birthdate ,SocialSecNum ,CellPhone ,
HireDate ,EmployeeType ,PayrollType ,CurrentPayAmount ,TotalPayrollReceipts
from HR.EMPLOYEE

select DoctorID ,EmergencyPhoneNumber,SpecialtyID
FROM HR.DOCTOR

select TransactionDate, EmpID, GrossPay ,TaxWithHeld ,AddAmtWithHeld ,NetPay
from ACCOUNTING.PAYROLLTRANSACTIONS
```

110 %

Results Messages

	EmployeeID	FirstName	LastName	Birthdate	SocialSecNum	CellPhone	HireDate	EmployeeType	PayrollType	CurrentPayAmount	TotalPayrollReceipts
1	1	Emre	Tekin	1993-08-29	123456789	3471112233	2019-01-01	5	3	500.00	11500.00
2	2	Emir	Ozkara	1993-05-08	234567891	3471112244	2017-03-01	9	3	500.00	60000.00
3	3	Ozgur	Varol	1980-01-02	345678912	3471112255	2017-05-07	8	3	500.00	45900.00
4	4	David	Thompson	1964-04-03	456789123	3471112266	2016-03-01	4	3	600.00	87360.00
5	5	Andrea	Brose	1985-09-01	567891234	3471112277	2017-06-06	6	3	550.00	45760.00
6	6	Leslie	Habel	1976-06-02	678912345	3471112288	2015-02-04	3	3	400.00	63000.00
7	7	Luca	Albertini	1989-08-08	789123456	3471112299	2018-10-05	7	3	400.00	11000.00
8	8	Steven	Gerard	1981-05-06	891234567	3472223344	2016-06-25	2	3	425.00	71000.00
9	9	Adam	Alan	1986-04-04	912345678	3472223355	2019-01-19	1	3	800.00	9600.00
10	10	Jerome	John	1977-09-23	112345678	3472223366	2017-10-12	1	3	900.00	78000.00
11	11	Clay	Cedric	1973-08-13	111234567	3472223377	2017-04-25	1	3	950.00	93600.00
12	12	Carlos	Alvarez	1980-11-26	111123456	3472223388	2018-01-25	1	3	980.00	52000.00
13	13	Gerald	Adams	1986-06-29	111113456	3472223399	2018-01-18	1	3	950.00	57000.00

Query executed successfully. WS2016SQLD (14.0 RTM) WS2016SQLD\Administrat... TouroClinic 00:00:00 25 rows

STEP 17(PAYROLL ACTIONS)

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'Step16 & 17.sql - WS2016SQLD.TouroClinic (WS2016SQLD\Administrator (57))'. The menu bar includes File, Edit, View, Query, Project, Debug, Tools, Window, and Help. The toolbar contains icons for New Query, Open, Save, Execute, and other standard database operations. The main query editor displays the following SQL script:

```
--STEP 17
select EmployeeID,FirstName,LastName,Birthdate,SocialSecNum,CellPhone,
HireDate,EmployeeType,PayrollType,CurrentPayAmount,TotalPayrollReceipts
from HR.EMPLOYEE

select DoctorID,EmergencyPhoneNumber,SpecialtyID
FROM HR.DOCTOR

select TransactionDate,EmpID,GrossPay,TaxWithHeld,AddAmtWithHeld,NetPay
from ACCOUNTING.PAYROLLTRANSACTIONS
```

Below the query editor, the 'Results' tab is active, displaying a table with 7 rows of data. The status bar at the bottom indicates 'Query executed successfully.' and '25 rows'.

	TransactionDate	EmpID	GrossPay	TaxWithHeld	AddAmtWithHeld	NetPay
1	2019-04-06	1	500.00	142.00	58.00	300.00
2	2019-04-20	9	800.00	192.00	58.00	550.00
3	2019-04-20	10	900.00	203.00	97.00	600.00
4	2019-04-29	1	500.00	50.00	50.00	400.00
5	2019-05-13	1	500.00	45.00	105.00	350.00
6	2019-05-13	3	900.00	45.00	55.00	800.00
7	2019-05-13	6	600.00	123.00	77.00	400.00

STEP 19(LOGS WITH CORRECT DATA)

The screenshot displays the Microsoft SQL Server Enterprise Manager interface. The left pane shows the 'Object Explorer' with the 'TouroClinic' database selected. The right pane shows a query window with the following SQL code:

```
exec [dbo].[InsertUpdate18] 3,750,100,150

select * from ACCOUNTING.PAYROLLTRANSACTIONS

select Current LSN,
       Operation, [Transaction Name], [Transaction ID],
       user_sname([Transaction SID]) As WhoDidIT, AllocUnitName,
       obj_name, SPID, [Begin Time], [Number of Locks],
       [End Time]
from fn_dblog(null,null) As tranlog
left join
       [TouroClinic].sys.partitions pt
on pt.partition_id =
       tranlog.partitionid
left join
       [TouroClinic].sys.objects obj on
       obj.object_id = pt.object_id
and obj.name in
       ('[ACCOUNTING].[PAYROLLTRANSACTIONS]', '[ACCOUNTING].[PAYROLLTYPE]', '[HR].[DOCTOR]',
        '[HR].[EMPLOYEE]', '[HR].[EMPLOYEE]', '[HR].[EMPLOYEE]', '[HR].[SPECIALTYCODE]')
```

The 'Results' pane shows the following data:

	Current LSN	Operation	Transaction Name	Transaction ID	WhoDidIT	AllocUnitName	name	SPID	Begin Time	Number of Locks	End Time
1	00000026:0000007c:0066	LOP_BEGIN_XACT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
2	00000026:00000004:0001	LOP_XACT_CKPT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
3	00000026:00000005:0001	LOP_END_XACT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
4	00000026:00000006:0001	LOP_BEGIN_XACT	user_transaction	0000:0000004de	DESKTOP-MQITTTA\emre	NULL	PAYROLLTRANSACTIONS	52	2019/05/14 23:57:32.027	3	NULL
5	00000026:00000006:0002	LOP_INSERT_ROWS	NULL	0000:0000004de	NULL	ACCOUNTING PAYROLL...	EMPLOYEE	NULL	NULL	3	NULL
6	00000026:00000006:0003	LOP_MODIFY_ROW	NULL	0000:0000004de	NULL	HR.EMPLOYEE PK_Empl...	EMPLOYEE	NULL	NULL	3	NULL
7	00000026:00000006:0004	LOP_COMMIT_XACT	NULL	0000:0000004de	NULL	NULL	NULL	NULL	NULL	NULL	2019/05/14 23:57:32.027

The status bar at the bottom indicates: 'Query executed successfully. DESKTOP-MQITTTA\SQLEXPRESS ... DESKTOP-MQITTTA\emre (52) TouroClinic 00:00:00 7 rows'.

STEP 20(LOGS WITH INCORRECT DATA)

SQLQuery1.sql - DESKTOP-MQIT77A\SQLEXPRESS:TouroClinic (DESKTOP-MQIT77A\emre (52)) - Microsoft SQL Server Management Studio

File Edit View Query Project Debug Tools Window Help

Connect -> TouroClinic

Object Explorer

- ItemSales
- PayrollDB
- PREMIEREDB
- Register
- TouroClinic
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - ACCOUNTING.PAY
 - Columns
 - Transactionl
 - EmpID (PK, I)
 - GrossPay (d)
 - TaxWithHeld
 - AddAwereWit
 - NetPay (dec)
 - Keys
 - Constraints
 - Indexes
 - Statistics
 - ACCOUNTING.PAY
 - HR.DOCTOR
 - HR.EMPLOYEE
 - HR.EMPLOYEEYPE
 - HR.SPECIALTYCOD
 - Views
 - Synonyms
 - Programmability
 - Stored Procedures
 - Functions
 - Database Triggers
 - Assemblies
 - Types
 - Rules
 - Defaults
 - Sequences
 - Service Broker
 - Storage
 - Security
 - TouroPharmacy
 - VideoRentals
 - Unitly

SQLQuery2.sql - D:\MQIT77A\emre (52) SQLQuery1.sql - D:\MQIT77A\emre (52) FINALPRO.sql - DE..QIT77A\emre (51)

```

--exec [dbo].[InsertUpdate10] 15,750,100,150

select * from ACCOUNTING.PAYROLLTRANSACTIONS

select [Current LSN],
       [Operation], [Transaction Name], [Transaction ID],
       [WhoDidIt], [AllocUnitName],
       [obj_name], [SPID], [Begin Time], [Number of Locks],
       [End Time]
from fn_dblog(null,null) As tranlog
left join
[TouroClinic].sys.partitions pt
on pt.partition_id =
tranlog.partitionid
left join
[TouroClinic].sys.objects obj on
obj.object_id = pt.object_id
and obj.name in
('['+ACCOUNTING.PAYROLLTRANSACTIONS+'], ['+ACCOUNTING.PAYROLLTYPE+'], ['+HR.DOCTOR+'],
['+HR.EMPLOYEE+'], ['+HR.EMPLOYEEYPE+'], ['+HR.SPECIALTYCODE+'])
  
```

Results

	Current LSN	Operation	Transaction Name	Transaction ID	WhoDidIt	AllocUnitName	name	SPID	Begin Time	Number of Locks	End Time
1	00000026:0000007c:0066	LOP_BEGIN_CHKPT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
2	00000026:000000a4:0001	LOP_XACT_CHKPT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
3	00000026:000000a5:0001	LOP_END_CHKPT	NULL	0000:00000000	NULL	NULL	NULL	NULL	NULL	NULL	NULL
4	00000026:000000a6:0001	LOP_BEGIN_XACT	user.transaction	0000:0000004e	DESKTOP-MQIT77A\emre	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	52	2019/05/14 23:57:32.027	3	NULL
5	00000026:000000a6:0002	LOP_INSERT_ROWS	NULL	0000:0000004e	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	3	NULL
6	00000026:000000a6:0003	LOP_MODIFY_ROW	NULL	0000:0000004e	NULL	HR.EMPLOYEE PK_Employee	NULL	NULL	NULL	3	NULL
7	00000026:000000a6:0004	LOP_COMMIT_XACT	NULL	0000:0000004e	NULL	NULL	NULL	NULL	NULL	NULL	2019/05/14 23:57:32.027
8	00000026:000000a8:0001	LOP_BEGIN_XACT	user.transaction	0000:0000004f	DESKTOP-MQIT77A\emre	NULL	NULL	52	2019/05/15 00:04:11.360	NULL	NULL
9	00000026:000000a8:0002	LOP_INSERT_ROWS	NULL	0000:0000004f	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	3	NULL
10	00000026:000000a8:0003	LOP_DELETE_ROWS	NULL	0000:0000004f	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	0	NULL
11	00000026:000000a8:0004	LOP_SET_BITS	NULL	0000:00000000	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	0	NULL
12	00000026:000000a8:0005	LOP_ABORT_XACT	NULL	0000:0000004f	NULL	NULL	NULL	NULL	NULL	NULL	2019/05/15 00:04:11.360
13	00000026:000000a8:0006	LOP_EXPUNGE_ROWS	NULL	0000:00000000	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	NULL	NULL
14	00000026:000000a8:0007	LOP_SET_BITS	NULL	0000:00000000	NULL	ACCOUNTING.PAYROLLTRANSACTIONS PK_PayrollTrans	NULL	NULL	NULL	0	NULL

Query executed successfully.

DESKTOP-MQIT77A\SQLEXPRESS ... DESKTOP-MQIT77A\emre (52) TouroClinic 00:00:00 14 rows