

1. Patients admitted to hospital in a certain month, their admitting physician, bed assigned and ward, sorted by most recent date

View

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the 'hospital' database structure, including 'dbo.PatientAdmit_vw'. The central pane shows a SQL query in 'SQLQuery10.sql' that selects the top 1000 rows from the 'PatientAdmit_vw' view, listing columns: Patient_name, Doc_name, AdmitDate, BedNo, and WardID. The bottom pane shows the 'Results' tab with a table of 11 rows. The first row is highlighted, showing 'Mason' as the patient name.

```
SELECT TOP (1000) [Patient_name]
, [Doc_name]
, [AdmitDate]
, [BedNo]
, [WardID]
FROM [hospital].[dbo].[PatientAdmit_vw]
```

	Patient_name	Doc_name	AdmitDate	BedNo	WardID
1	Mason	Carter	2023-09-18	14	14
2	Evelyn	Lily	2023-09-18	16	12
3	Caleb	Grace	2023-09-20	12	17
4	Oliver	Addison	2023-09-18	15	15
5	Avery	Alexander	2023-09-21	6	15
6	Henry	Ella	2023-09-21	9	16
7	Emma	Samuel	2023-09-21	8	13
8	Riley	Riley	2023-09-22	11	19
9	Celine	Ella	2023-09-22	9	16
10	Catherlyn	Scarlett	2022-04-22	7	12
11	Celine	Addison	2022-02-02	9	16

SPROC

Object Explorer

Connect

PHUONG\SQLEXPRESS (SQL Server 16.0.100)

- Databases
 - System Databases
 - Database Snapshots
 - PPham_employee
 - hospital
 - Database Diagrams
 - Tables
 - Views
 - External Resources
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 - Stored Procedures
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 - dbo.PatientAdmit_sproc
 - Functions
 - Database Triggers
 - Assemblies
 - Types
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 - Defaults
 - Sequences
 - Query Store
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 - Security
 - Server Objects
 - Replication
 - Management
 - XEvent Profiler

SQLQuery11.sql - ...PHUONG\heeph (58))

SQLQuery10.sql - ...PHUONG\heeph (55))

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[PatientAdmit_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Doc_name	AdmitDate	BedNo	WardID
1	Celine	Addison	2022-02-02	9	16
2	Catherlyn	Scarlett	2022-04-22	7	12
3	Mason	Carter	2023-09-18	14	14
4	Evelyn	Lily	2023-09-18	16	12
5	Oliver	Addison	2023-09-18	15	15
6	Caleb	Grace	2023-09-20	12	17
7	Avery	Alexander	2023-09-21	6	15
8	Henry	Ella	2023-09-21	9	16
9	Emma	Samuel	2023-09-21	8	13
10	Riley	Riley	2023-09-22	11	19
11	Celine	Ella	2023-09-22	9	16

	Return Value
1	0

SPROC with PARA

SQLQuery13.sql -...PHUONG\heeph (72)) SQLQuery12.sql -...PHUONG\heeph (55))

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[PatientAdmit_param]
        @PatientName = N'Oliver',
        @DocName = N'Addison'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient	Doctor	AdmitDate	BedNo	WardID
1	Oliver	Addison	2023-09-18	15	15

	Return Value
1	0

Logic Check

SQLQuery14.sql -...PHUONG\heeph (74))* SQLQuery12.sql -...PHUONG\heeph (55))* SQLQuery13.sql -...PHUONG\heeph (72))*

```
SELECT p1.PatientID, p1.FirstName AS Patient_name, p2.DoctorID , p2.FirstName
b.BedNo, WardID
FROM AdmitDischarge a
Join Patient p1
ON p1.PatientID = a.PatientID
Join Physician p2
On p2.DoctorID = a.AdmitDoc
Join Bed b
ON b.BedNo = p1.BedNo
```

100 %

Results Messages

	PatientID	Patient_name	DoctorID	Doc_name	AdmitDate	BedNo	WardID
1	2	Mason	6	Carter	2023-09-18	14	14
2	4	Evelyn	5	Lily	2023-09-18	16	12
3	6	Caleb	4	Grace	2023-09-20	12	17
4	7	Oliver	8	Addison	2023-09-18	15	15
5	8	Avery	2	Alexander	2023-09-21	6	15
6	10	Henry	9	Ella	2023-09-21	9	16
7	11	Emma	3	Samuel	2023-09-21	8	13
8	13	Riley	7	Riley	2023-09-22	11	19
9	16	Celine	9	Ella	2023-09-22	9	16
10	17	Catherlyn	10	Scarlett	2022-04-22	7	12
11	16	Celine	8	Addison	2022-02-02	9	16

```
USE [hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[PatientAdmit_param]
    @PatientName = N'Oliver',
    @DocName = N'Addison'

SELECT 'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient	Doctor	AdmitDate	BedNo	WardID
1	Oliver	Addison	2023-09-18	15	15

	Return Value
1	0

2. Physician total admits for the past year, sorted by date

View

SQLQuery14.sql -...PHUONG\heeph (74))* X SQLQuery11.sql -...PHUONG\heeph (58))

```
CREATE VIEW DocAdmit_VW
AS
SELECT p.FirstName as Doc_name, AdmitDate
FROM AdmitDischarge a
JOIN Physician p
ON a.AdmitDoc = p.DoctorID
WHERE AdmitDate LIKE '2022%'

SELECT * FROM DocAdmit_VW
```

100 %

Results Messages

	Doc_name	AdmitDate
1	Scarlett	2022-04-22
2	Addison	2022-02-02

SPROC

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[DocAdmit_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Doc_name	AdmitDate
1	Scarlett	2022-04-22
2	Addison	2022-02-02

	Return Value
1	0

SPROC with Para

SQLQuery6.sql - P...HUONG\heeph (78))* X SQLQuery5.sql - P...HUONG\heeph (53)) SQLQ

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[DocAdmit_para]
        @DocName = N'Scarlett',
        @Date = N'2022-04-22'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Doc_name	AdmitDate
1	Scarlett	2022-04-22

	Return Value
1	0

Logic Check

The screenshot displays three SQL query windows in SQL Server Enterprise Manager, each showing a query and its results.

SQLQuery4.sql - P...HUONG\heeph (62))*

```
SELECT p.DoctorID, p.FirstName AS Doc_name, AdmitDate
FROM AdmitDischarge a
JOIN Physician p
ON a.AdmitDoc = p.DoctorID
WHERE AdmitDate LIKE '2022%'
```

	DoctorID	Doc_name	AdmitDate
1	10	Scarlett	2022-04-22
2	8	Addison	2022-02-02

SQLQuery1.sql - P...HUONG\heeph (52))*

(This window is currently empty in the screenshot)

SQLQuery6.sql - P...HUONG\heeph (78))*

```
USE [hospital]
GO

DECLARE @return_value int

EXEC     @return_value = [dbo].[DocAdmit_para]
        @DocName = N'Scarlett',
        @Date = N'2022-04-22'

SELECT   'Return Value' = @return_value
GO
```

	Doc_name	AdmitDate
1	Scarlett	2022-04-22

	Return Value
1	0

3. Total list of treatments administered to a patient by physician for each treatment, sorted by date of treatment, listing last name of patient and of physician

View

SQLQuery2.sql - P...HUONG\heeph (65) X SQLQuery1.sql - P...HUONG\heeph (52)*

```
SELECT TOP (1000) [Patient_LastName]
, [Doc_LastName]
, [TreatmentID]
, [DateTime]
, [Results]
FROM [hospital].[dbo].[TreatmentAdministration_VW]
```

100 %

Results Messages

	Patient_LastName	Doc_LastName	TreatmentID	DateTime	Results
1	Martin	Green	1	2023-09-18 16:30:00.000	Tumor Detection
2	Martin	Green	2	2023-09-18 16:30:00.000	Tumor Detection
3	Lewis	Lewis	1	2023-09-18 10:30:00.000	Normal Anatomy
4	Harris	Thompson	1	2023-09-20 15:20:00.000	Cardiac detected
5	Harris	Thompson	12	2023-09-20 15:20:00.000	Negative
6	Smith	Clark	4	2023-09-18 08:45:00.000	Improved mobility
7	Thomas	Carlson	2	2023-09-21 16:20:00.000	Gum disease
8	Young	Scott	10	2023-09-21 13:30:00.000	Fluid removed
9	Williams	Baker	7	2023-09-21 07:30:00.000	Benign finding

SPROC

SQLQuery3.sql - P...HUONG\heeph (70)) SQLQuery2.sql - P...HUONG\heeph (65)) SQLQuery1.sql - P...H

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[TreatmentAdministration_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_LastName	Doc_LastName	TreatmentID	DateTime	Results
1	Smith	Clark	4	2023-09-18 08:45:00.000	Improved mobility
2	Lewis	Lewis	1	2023-09-18 10:30:00.000	Normal Anatomy
3	Martin	Green	1	2023-09-18 16:30:00.000	Tumor Detection
4	Martin	Green	2	2023-09-18 16:30:00.000	Tumor Detection
5	Harris	Thompson	1	2023-09-20 15:20:00.000	Cardiac detected
6	Harris	Thompson	12	2023-09-20 15:20:00.000	Negative
7	Williams	Baker	7	2023-09-21 07:30:00.000	Benign finding
8	Young	Scott	10	2023-09-21 13:30:00.000	Fluid removed
9	Thomas	Carlson	2	2023-09-21 16:20:00.000	Gum disease

	Return Value
1	0

SPROC With Para

SQLQuery4.sql - P...HUONG\heeph (62))* X SQLQuery2.sql - P...HUONG\heeph (65)) SQLQuery1.sql - P...H

```
USE [hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[TreatmentAdministration_para]
    @Result = N'Gum Disease',
    @PatientName = N'Thomas'

SELECT 'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_LastName	Doc_LastName	TreatmentID	DateTime	Results
1	Thomas	Carlson	2	2023-09-21 16:20:00.000	Gum disease

	Return Value
1	0

Logic Check

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[TreatmentAdministration_para]
        @Result = N'Gum Disease',
        @PatientName = N'Thomas'

SELECT  'Return Value' = @return_value

GO
```

Results					
	Patient_LastName	Doc_LastName	TreatmentID	DateTime	Results
1	Thomas	Carlson	2	2023-09-21 16:20:00.000	Gum disease

Return Value	
1	0

```
SELECT p1.PatientID, p1.LastName as Patient_LastName, p2.DoctorID,
p2.LastName as Doc_LastName, TreatmentID, Results
FROM TreatmentAdministration t
JOIN Patient p1
ON p1.PatientID = t.PatientID
JOIN Physician p2
ON p2.DoctorID = t.DoctorID
```

Results						
	PatientID	Patient_LastName	DoctorID	Doc_LastName	TreatmentID	Results
1	2	Martin	6	Green	1	Tumor Detection
2	2	Martin	6	Green	2	Tumor Detection
3	4	Lewis	5	Lewis	1	Normal Anatomy
4	6	Harris	4	Thompson	1	Cardiac detected
5	6	Harris	4	Thompson	12	Negative
6	7	Smith	8	Clark	4	Improved mobility
7	8	Thomas	2	Carlson	2	Gum disease
8	10	Young	9	Scott	10	Fluid removed
9	11	Williams	3	Baker	7	Benign finding

4. Patient itemized bill: List of treatments and items, by charge and sorted by date.

View

SQLQuery10.sql - ...PHUONG\heeph (57) X SQLQuery9.sql - P...HUONG\heeph (52))

```
SELECT TOP (1000) [Patient_name]
, [ItemName]
, [ItemCharge]
, [Treatname]
, [TreatmentCharge]
FROM [hospital].[dbo].[PatientBill_VW]
```

100 %

Results Messages

	Patient_name	ItemName	ItemCharge	Treatname	TreatmentCharge
1	Mason	Gloves	5.00	MRI	1000.00
2	Mason	Gloves	5.00	X-ray	200.00
3	Mason	Mask	7.00	MRI	1000.00
4	Mason	Mask	7.00	X-ray	200.00
5	Caleb	Hand sanitizer	4.00	MRI	1000.00
6	Caleb	Hand sanitizer	4.00	Mammogram	100.00
7	Avery	Snacks	3.00	X-ray	200.00
8	Oliver	Toothpaste	5.00	Physical Therapy	100.00
9	Oliver	Magazines	3.00	Physical Therapy	100.00
10	Henry	Charger	15.00	Dialysis	2000.00
11	Henry	Newspapers	2.00	Dialysis	2000.00
12	Emma	Coke	3.00	Radiation Therapy	1000.00
13	Emma	Hand sanitizer	4.00	Radiation Therapy	1000.00

SPROC

SQLQuery8.sql - P...HUONG\heeph (65)) SQLQuery7.sql - P...HUONG\heeph (56)) SQLQuery4.sql - P...HU

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[PatientBill_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	ItemName	ItemCharge	Treatname	TreatmentCharge
1	Oliver	Toothpaste	5.00	Physical Therapy	100.00
2	Oliver	Magazines	3.00	Physical Therapy	100.00
3	Mason	Gloves	5.00	MRI	1000.00
4	Mason	Gloves	5.00	X-ray	200.00
5	Mason	Mask	7.00	MRI	1000.00
6	Mason	Mask	7.00	X-ray	200.00
7	Caleb	Hand sanitizer	4.00	MRI	1000.00
8	Caleb	Hand sanitizer	4.00	Mammogram	100.00
9	Emma	Coke	3.00	Radiation Therapy	1000.00
10	Emma	Hand sanitizer	4.00	Radiation Therapy	1000.00
11	Henry	Charger	15.00	Dialysis	2000.00

	Return Value
1	0

SPROC with Para

SQLQuery9.sql - P...HUONG\heeph (52) SQLQuery8.sql - P...HUONG\heeph (65)

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[PatientBill_para]
        @PatientName = N'Caleb',
        @TreatmentName = N'MRI'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	ItemName	ItemCharge	Treatname	TreatmentCharge
1	Caleb	Hand sanitizer	4.00	MRI	1000.00

	Return Value
1	0

Logic Check

SQLQuery12.sql - ...PHUONG\heeph (74) SQLQuery10.sql - ...PHUONG\heeph (57))

```
USE [hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[PatientBill_para]
    @PatientName = N'Caleb',
    @TreatmentName = N'MRI'

SELECT 'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	ItemName	ItemCharge	Treatname	TreatmentCharge
1	Caleb	Hand sanitizer	4.00	MRI	1000.00

	Return Value
1	0

SQLQuery11.sql - ...PHUONG\heeph (52))*

```
SELECT p.PatientID, p.FirstName AS Patient_name, i1.ItemName, i1.Charge /
FROM Patient p
JOIN TreatmentAdministration t
ON t.PatientID = p.PatientID
JOIN Treatment t1
ON t.TreatmentID = t1.TreatmentID
JOIN ItemCharge i
ON i.PatientID = p.PatientID
JOIN Item i1
ON i1.ItemID = i.ItemID
```

100 %

Results Messages

	PatientID	Patient_name	ItemName	ItemCharge	Treatname	TreatmentCharge
1	2	Mason	Gloves	5.00	MRI	1000.00
2	2	Mason	Gloves	5.00	X-ray	200.00
3	2	Mason	Mask	7.00	MRI	1000.00
4	2	Mason	Mask	7.00	X-ray	200.00
5	6	Caleb	Hand sanitizer	4.00	MRI	1000.00
6	6	Caleb	Hand sanitizer	4.00	Mammogram	100.00
7	8	Avery	Snacks	3.00	X-ray	200.00
8	7	Oliver	Toothpaste	5.00	Physical Therapy	100.00
9	7	Oliver	Magazines	3.00	Physical Therapy	100.00
10	10	Henry	Charger	15.00	Dialysis	2000.00
11	10	Henry	Newspapers	2.00	Dialysis	2000.00
12	11	Emma	Coke	3.00	Radiation Therapy	1000.00
13	11	Emma	Hand sanitizer	4.00	Radiation Therapy	1000.00

5. List all nurse-patient events with nurse name and patient name

View

SQLQuery14.sql -...PHUONG\heeph (64)) × SQLQuery13.sql -...PHUONG\heeph (60))* SQLQuery10.sql

```
SELECT TOP (1000) [EventID]
      ,[Patient_name]
      ,[Nurse_name]
      ,[EventType]
      ,[Date]
      ,[Time]
FROM [hospital].[dbo].[NursePatient_VW]
```

100 %

Results Messages

	EventID	Patient_name	Nurse_name	EventType	Date	Time
1	1	Harper	Sophie	WC	2023-09-19	06:11:20.0000000
2	2	Mason	Olivia	MED	2023-09-19	10:10:00.0000000
3	6	Evelyn	Aiden	MED	2023-09-18	14:15:00.0000000
4	8	Caleb	Liam	FS	2023-09-20	14:15:00.0000000
5	10	Oliver	Emily	AS	2023-09-21	12:10:00.0000000
6	11	Emma	Ethan	WC	2023-09-21	08:40:00.0000000
7	12	Henry	Mia	TA	2023-09-21	06:50:00.0000000
8	13	Riley	Aiden	MED	2023-09-22	09:00:00.0000000
9	18	Avery	Noah	FS	2023-09-23	19:20:00.0000000

SPROC

SQLQuery15.sql -...PHUONG\heeph (77) SQLQuery14.sql -...PHUONG\heeph (64) SQLQuery13.sql

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NursePatient_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Nurse_name	EventType	Date	Time
1	Harper	Sophie	WC	2023-09-19	06:11:20.0000000
2	Mason	Olivia	MED	2023-09-19	10:10:00.0000000
3	Evelyn	Aiden	MED	2023-09-18	14:15:00.0000000
4	Caleb	Liam	FS	2023-09-20	14:15:00.0000000
5	Oliver	Emily	AS	2023-09-21	12:10:00.0000000
6	Emma	Ethan	WC	2023-09-21	08:40:00.0000000
7	Henry	Mia	TA	2023-09-21	06:50:00.0000000
8	Riley	Aiden	MED	2023-09-22	09:00:00.0000000
9	Avery	Noah	FS	2023-09-23	19:20:00.0000000

	Return Value
1	0

SPROC with Para

SQLQuery16.sql -...PHUONG\heeph (72)) SQLQuery15.sql -...PHUONG\heeph (77))

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NursePatient_para]
        @EventType = N'AS',
        @PatientName = N'Oliver'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Nurse_name	EventType	Date	Time
1	Oliver	Emily	AS	2023-09-21	12:10:00.0000000

	Return Value
1	0

Logic Check

SQLQuery14.sql -...PHUONG\heeph (64))

SQLQuery13.sql -...PHUONG\heeph (60))*

SQLQuery16.sql -...PHUONG\heeph (72))

```
SELECT EventID, p.PatientID, p.FirstName as Patient_name, n.FirstName as
FROM NursePatient np
JOIN Patient p
ON np.PatientID = p.PatientID
JOIN Nurse n
ON n.NurseID = np.NurseID
```

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NursePatient_para]
        @EventType = N'AS',
        @PatientName = N'Oliver'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	EventID	PatientID	Patient_name	Nurse_name	EventType	Date	Time
1	1	1	Harper	Sophie	WC	2023-09-19	06:11:20.0000000
2	2	2	Mason	Olivia	MED	2023-09-19	10:10:00.0000000
3	6	4	Evelyn	Aiden	MED	2023-09-18	14:15:00.0000000
4	8	6	Caleb	Liam	FS	2023-09-20	14:15:00.0000000
5	10	7	Oliver	Emily	AS	2023-09-21	12:10:00.0000000
6	11	11	Emma	Ethan	WC	2023-09-21	08:40:00.0000000
7	12	10	Henry	Mia	TA	2023-09-21	06:50:00.0000000
8	13	13	Riley	Aiden	MED	2023-09-22	09:00:00.0000000
9	18	8	Avery	Noah	FS	2023-09-23	19:20:00.0000000

100 %

Results Messages

	Patient_name	Nurse_name	EventType	Date	Time
1	Oliver	Emily	AS	2023-09-21	12:10:00.0000000

	Return Value
1	0

6. Find missing values for beds with and without patients, and for patients with and without beds.

View

SQLQuery17.sql -...PHUONG\heeph (78)) SQLQuery14.sql -...PHUONG

```
SELECT TOP (1000) [BedNo]
      ,[PatientID]
FROM [hospital].[dbo].[PatientBed_VW]
```

100 %

Results Messages

	BedNo	PatientID
1	12	1
2	14	2
3	16	4
4	12	6
5	15	7
6	6	8
7	9	10
8	8	11
9	11	13
10	8	15
11	9	16
12	7	17
13	10	NULL

SPROC

SQLQuery18.sql -...PHUONG\heeph (64) X SQLQuery17.sql -...PHUONG\heeph (78))

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[PatientBed_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	BedNo	PatientID
1	12	1
2	14	2
3	16	4
4	12	6
5	15	7
6	6	8
7	9	10
8	8	11
9	11	13
10	8	15
11	9	16

	Return Value
1	0

SPROC with Para + Logic Check

The image displays two SQL Server query windows side-by-side, illustrating a stored procedure call with parameters and its results.

Left Window (SQLQuery17.sql):

```
SELECT b.BedNo, PatientID , p.FirstName as PatientName, DOB
FROM Patient p
FULL JOIN Bed b
ON p.BedNo = b.BedNo
```

Results (Left Window):

	BedNo	PatientID	PatientName	DOB
1	12	1	Harper	1945-12-08
2	14	2	Mason	1988-02-18
3	16	4	Evelyn	2000-06-25
4	12	6	Caleb	2002-11-16
5	15	7	Oliver	1979-10-20
6	6	8	Avery	1995-11-09
7	9	10	Henry	1985-08-03
8	8	11	Emma	1996-03-23
9	11	13	Riley	1968-09-21
10	8	15	Lily	1997-10-04
11	9	16	Celine	1990-10-14
12	7	17	Catherlyn	1962-07-14
13	10	NULL	NULL	NULL

Right Window (SQLQuery19.sql):

```
USE [hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[PatientBed_para]
    @BedNo = N'8',
    @PatientName = N'Emma'

SELECT 'Return Value' = @return_value
GO
```

Results (Right Window):

	BedNo	PatientID	PatientName
1	8	11	Emma

	Return Value
1	0

7. Find missing values of for nurses who have not seen a patient and all patients that have not seen a nurse.

View

SQLQuery20.sql - ...PHUONG\heeph (80)) SQLQuery17.sql - ...PHUONG\heeph (78)) SQLQu

```
SELECT TOP (1000) [Patient_name]
, [Nurse_name]
FROM [hospital].[dbo].[MissingNursePatient_VW]
```

100 %

Results Messages

	Patient_name	Nurse_name
1	Oliver	Emily
2	Emma	Ethan
3	Mason	Olivia
4	Caleb	Liam
5	NULL	Ava
6	Avery	Noah
7	Harper	Sophie
8	NULL	Jackson
9	NULL	Isabella
10	Evelyn	Aiden
11	Riley	Aiden
12	Henry	Mia
13	NULL	Lucas
14	Lily	NULL
15	Celine	NULL
16	Catherlyn	NULL

SPROC

SQLQuery21.sql - ...PHUONG\heeph (58) SQLQuery20.sql - ...PHUONG\heeph (80) SQLQuery13.sql - ...

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[MissingNursePatient_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Nurse_name
1	Oliver	Emily
2	Emma	Ethan
3	Mason	Olivia
4	Caleb	Liam
5	NULL	Ava
6	Avery	Noah
7	Harper	Sophie
8	NULL	Jackson
9	NULL	Isabella
10	Evelyn	Aiden
11	Riley	Aiden

	Return Value
1	0

SPROC with Para

SQLQuery22.sql -...PHUONG\heeph (70))* X SQLQuery21.sql -...PHUONG\heeph (58)) SQLQu

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[MissingNursePatient_para]
        @PatientName = N'Harper',
        @NurseName = N'Sophie'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Nurse_name
1	Harper	Sophie

	Return Value
1	0

Logic Check

SQLQuery21.sql - ...PHUONG\heeph (58)

```
SELECT p.PatientID, p.FirstName as Patient_name, n.NurseID, n.FirstName as Nurse_name
FROM NursePatient np
FULL JOIN Patient p
ON np.PatientID = p.PatientID
FULL JOIN Nurse n
ON n.NurseID = np.NurseID
```

100 %

Results Messages

	PatientID	Patient_name	NurseID	Nurse_name
1	7	Oliver	10	Emily
2	11	Emma	11	Ethan
3	2	Mason	12	Olivia
4	6	Caleb	13	Liam
5	NULL	NULL	14	Ava
6	8	Avery	15	Noah
7	1	Harper	16	Sophie
8	NULL	NULL	17	Jackson
9	NULL	NULL	18	Isabella
10	4	Evelyn	19	Aiden
11	13	Riley	19	Aiden
12	10	Henry	20	Mia
13	NULL	NULL	21	Lucas
14	15	Lily	NULL	NULL
15	16	Celine	NULL	NULL
16	17	Catherlyn	NULL	NULL

SQLQuery13.sql - ...PHUONG\heeph (60))*

SQLQuery22.sql - ...PHUONG\heeph (70))*

```
USE [hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[MissingNursePatient_para]
    @PatientName = N'Harper',
    @NurseName = N'Sophie'

SELECT 'Return Value' = @return_value

GO
```

100 %

Results Messages

	Patient_name	Nurse_name
1	Harper	Sophie

	Return Value
1	0

8. Create a distribution of nurses across all wards, and a distribution of all wards across nurses

View

```
SELECT TOP (1000) [NurseID]
               , [Location]
FROM [hospital].[dbo].[NurseWard_VW]
```

100 %

Results Messages

	NurseID	Location
1	10	ICU
2	11	ICU
3	12	ICU
4	13	ICU
5	14	ICU
6	15	ICU
7	16	ICU
8	17	ICU
9	18	ICU
10	19	ICU
11	20	ICU
12	21	ICU
13	10	ER
14	11	ER
15	12	ER
16	13	ER
17	14	ER

✓ Query executed successfully.

SPROC

SQLQuery24.sql -...PHUONG\heeph (52) SQLQuery23.sql -...PHUONG\heeph (68)

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NurseWard_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	NurseID	Location
1	10	ICU
2	11	ICU
3	12	ICU
4	13	ICU
5	14	ICU
6	15	ICU
7	16	ICU
8	17	ICU
9	18	ICU
10	19	ICU
11	20	ICU

	Return Value
1	0

SPROC with Para

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NurseWard_para]
        @NurseName = N'Liam',
        @Location = N'ICU'

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	NurseID	Location	NurseName
1	13	ICU	Liam

	Return Value
1	0

Logic Check

```
SELECT n.NurseID, w.Location, n.FirstName as NurseName, w.ChargeNurse
FROM Nurse n
CROSS JOIN Ward w
```

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[NurseWard_para]
        @NurseName = N'Liam',
        @Location = N'ICU'

SELECT  'Return Value' = @return_value

GO
```

	NurseID	Location	NurseName	ChargeNurse
1	10	ICU	Emily	12
2	11	ICU	Ethan	12
3	12	ICU	Olivia	12
4	13	ICU	Liam	12
5	14	ICU	Ava	12
6	15	ICU	Noah	12
7	16	ICU	Sophie	12
8	17	ICU	Jackson	12
9	18	ICU	Isabella	12
10	19	ICU	Aiden	12
11	20	ICU	Mia	12
12	21	ICU	Lucas	12
13	10	ER	Emily	15
14	11	ER	Ethan	15

	NurseID	Location	NurseName
1	13	ICU	Liam

	Return Value
1	0

9. Create a distribution of beds across all wards, and a distribution of all wards across beds

View

```
SELECT TOP (1000) [BedNo]  
    , [Location]  
FROM [hospital].[dbo].[BedWard_VW]
```

100 %

Results Messages

	BedNo	Location
1	6	ICU
2	6	ER
3	6	Maternity
4	6	Surgical
5	6	Neurology
6	6	CCU
7	6	Oncology
8	6	Radiology
9	6	Obstetrics
10	6	Pediatric
11	6	Psychiatric
12	7	ICU
13	7	ER
14	7	Maternity
15	7	Surgical
16	7	Neurology
17	7	CCU

SPROC

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[BedWard_sproc]

SELECT  'Return Value' = @return_value

GO
```

100 %

Results Messages

	BedNo	Location
1	6	ICU
2	6	ER
3	6	Maternity
4	6	Surgical
5	6	Neurology
6	6	CCU
7	6	Oncology
8	6	Radiology
9	6	Obstetrics
10	6	Pediatric
11	6	Psychiatric

	Return Value
1	0

SPROC with Para

```
USE [hospital]
GO

DECLARE @return_value int

EXEC      @return_value = [dbo].[BedWard_para]
          @WardLocation = N'ICU',
          @BedSize = N'M'

SELECT    'Return Value' = @return_value

GO
```

100 %

Results Messages

	BedNo	Location	Size
1	7	ICU	M
2	11	ICU	M
3	16	ICU	M

	Return Value
1	0

Logic Check

```
SELECT b.BedNo, b.Size, b.Type, w.WardID, w.Location
From Bed b
CROSS JOIN Ward w
ORDER BY Location
```

```
USE [hospital]
GO

DECLARE @return_value int

EXEC    @return_value = [dbo].[BedWard_para]
        @WardLocation = N'ICU',
        @BedSize = N'M'

SELECT  'Return Value' = @return_value

GO
```

	BedNo	Size	Type	WardID	Location
18	14	S	M	10	ER
19	15	L	E	10	ER
20	16	M	E	10	ER
21	6	S	E	9	ICU
22	7	M	E	9	ICU
23	8	XL	M	9	ICU
24	9	L	E	9	ICU
25	10	L	M	9	ICU
26	11	M	E	9	ICU
27	12	XL	E	9	ICU
28	14	S	M	9	ICU
29	15	L	E	9	ICU
30	16	M	E	9	ICU
31	6	S	E	11	Matern...
32	7	M	E	11	Matern...
33	8	XL	M	11	Matern...

	BedNo	Location	Size
1	7	ICU	M
2	11	ICU	M
3	16	ICU	M

	Return Value
1	0