

Christian Castillo
ISM 4212
Hospital Database Views/SPROCs and Parameters

```

/* 1) View- Patients admitted to hospital in a certain month, their admitting physician, bed
assigned and ward, sorted by most recent date.*/
CREATE VIEW PatientBedWardDocAssignment_VW
AS
SELECT TOP 1000
    P.lastName AS 'Patient Last Name',
    B.type AS 'Bed_Type',
    B.size AS 'Bed_Size',
    W.location AS 'Ward_Name',
    PH.lastName AS 'Admitting_Doc',
    Month(AD.admitDate) AS 'Month_Admitted',
    AD.admitDate AS 'Date_Admitted'
FROM
    AdultDischarge AS AD
JOIN
    Physician AS PH ON AD.admitDoc=PH.doctorID
JOIN
    Patient AS P ON AD.patientNo=P.patientNo
JOIN
    Bed AS B ON P.bedNo=B.bedNo
JOIN
    Ward AS W ON B.wardID=W.wardID
WHERE
    MONTH(AD.admitDate)=2
ORDER BY AD.admitDate
SELECT *
FROM PatientBedWardDocAssignment_VW

```

	Patient Last Name	Bed_Type	Bed_Size	Ward_Name	Admitting_Doc	Month_Admitted	Date_Admitted
1	Donald	manual	L	Emergency Department East Wing	Lancaster	2	2024-02-01
2	Smith	manual	L	Pediatrics West Wing	Delgado	2	2024-02-02
3	Johnson	manual	S	Surgical Main Building	Hawthorne	2	2024-02-03
4	Williams	electric	L	Intensive Care Unit East Wing	Whitaker	2	2024-02-04
5	Brown	manual	XL	Maternity North Wing	McKinney	2	2024-02-05
6	Taylor	manual	L	Orthopedic South Wing	Chambers	2	2024-02-06
7	Martinez	manual	L	Cardiology West Wing	Hendricks	2	2024-02-07
8	Garcia	electric	XL	Neurology Main Building	Henson	2	2024-02-08
9	Lopez	manual	L	Psychiatric East Wing	Harrington	2	2024-02-09
10	Rodriguez	manual	XL	Oncology Main Building	Montgomery	2	2024-02-10

```

USE [Hospital]
GO
/***** Object: StoredProcedure [dbo].[PatientBedWardDocAssignment_PARA]    Script Date: 2/24/2024 4:58:10 AM *****/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
/* 1) PARAMETER- Patients admitted to hospital in a certain month, their admitting physician, bed
assigned and ward, sorted by most recent date.*/
ALTER PROC [dbo].[PatientBedWardDocAssignment_PARA] @PatientLastName nvarchar(25), @AdmittingDoctorLastName nvarchar(25)
AS
BEGIN
SELECT
    P.lastName AS 'Patient Last Name',
    B.type AS 'Bed_Type',
    B.size AS 'Bed_Size',
    W.location AS 'Ward_Name',
    PH.lastName AS 'Admitting_Doc',
    Month(AD.admitDate) AS 'Month_Admitted',
    AD.admitDate AS 'Date_Admitted'
FROM
    AdultDischarge AS AD
JOIN
    Physician AS PH ON AD.admitDoc=PH.doctorID
JOIN
    Patient AS P ON AD.patientNo=P.patientNo
JOIN
    Bed AS B ON P.bedNo=B.bedNo
JOIN
    Ward AS W ON B.wardID=W.wardID
WHERE
    MONTH(AD.admitDate)=2 AND (P.lastName like @PatientLastName + '%' AND (PH.lastName like @AdmittingDoctorLastName + '%')
ORDER BY AD.admitDate
END;

```

```

/* 1) SPROC- Patients admitted to hospital in a certain month, their admitting physician, bed
assigned and ward, sorted by most recent date.*/
CREATE PROC PatientBedWardDocAssignment_SPROC
AS
BEGIN
SELECT
    P.lastName AS 'Patient Last Name',
    B.type AS 'Bed_Type',
    B.size AS 'Bed_Size',
    W.location AS 'Ward_Name',
    PH.lastName AS 'Admitting_Doc',
    Month(AD.admitDate) AS 'Month_Admitted',
    AD.admitDate AS 'Date_Admitted'
FROM
    AdultDischarge AS AD
JOIN
    Physician AS PH ON AD.admitDoc=PH.doctorID
JOIN
    Patient AS P ON AD.patientNo=P.patientNo
JOIN
    Bed AS B ON P.bedNo=B.bedNo
JOIN
    Ward AS W ON B.wardID=W.wardID
WHERE
    MONTH(AD.admitDate)=2
ORDER BY AD.admitDate
END;
EXEC PatientBedWardDocAssignment_SPROC

```

	Patient Last Name	Bed_Type	Bed_Size	Ward_Name	Admitting_Doc	Month_Admitted	Date_Admitted
1	Donald	manual	L	Emergency Department East Wing	Lancaster	2	2024-02-01
2	Smith	manual	L	Pediatrics West Wing	Delgado	2	2024-02-02
3	Johnson	manual	S	Surgical Main Building	Hawthorne	2	2024-02-03
4	Williams	electric	L	Intensive Care Unit East Wing	Whitaker	2	2024-02-04
5	Brown	manual	XL	Maternity North Wing	McKinney	2	2024-02-05
6	Taylor	manual	L	Orthopedic South Wing	Chambers	2	2024-02-06
7	Martinez	manual	L	Cardiology West Wing	Hendricks	2	2024-02-07
8	Garcia	electric	XL	Neurology Main Building	Henson	2	2024-02-08
9	Lopez	manual	L	Psychiatric East Wing	Harrington	2	2024-02-09
10	Rodriguez	manual	XL	Oncology Main Building	Montgomery	2	2024-02-10

```

USE [Hospital]
GO
DECLARE @return_value int
EXEC     @return_value = [dbo].[PatientBedWardDocAssignment_PARA]
        @PatientLastName = 'N'D',
        @AdmittingDoctorLastName = 'N%'
SELECT   'Return Value' = @return_value
GO

```

	Patient Last Name	Bed_Type	Bed_Size	Ward_Name	Admitting_Doc	Month_Admitted	Date_Admitted
1	Donald	manual	L	Emergency Department East Wing	Lancaster	2	2024-02-01

```

--1) Logic Check
SELECT *
FROM PatientBedWardDocAssignment_VW
WHERE [Patient Last Name] LIKE 'D%'

```

	Patient Last Name	Bed_Type	Bed_Size	Ward_Name	Admitting_Doc	Month_Admitted	Date_Admitted
1	Donald	manual	L	Emergency Department East Wing	Lancaster	2	2024-02-01

Using already created view to logic check parametric SPROC of Patient Last Name starting with the letter D

Hospital Database Views/SPROCs and Parameters

```
/*2) View- Physician total admits for the past year, sorted by date.*/
```

```
CREATE VIEW PhysicianAdmits_VW
AS
SELECT TOP 1000
    P.lastName AS 'Doctor Last Name',
    AD.admitDate AS 'Date Doctor Admitted a Patient'
FROM
    AdultDischarge AD
JOIN
    Physician P ON AD.admitDoc=P.doctorID
JOIN
    Patient PA ON AD.patientNo=PA.patientNo
WHERE
    AD.admitDate >= DATEADD(year, -1, GETDATE()) -- anything in the past year
ORDER BY AD.admitDate

SELECT *
FROM PhysicianAdmits_VW
```

100 %

Results Messages

	Doctor Last Name	Date Doctor Admitted a Patient
1	Lancaster	2024-02-01
2	Delgado	2024-02-02
3	Hawthorne	2024-02-03
4	Whitaker	2024-02-04
5	McKinney	2024-02-05
6	Chambers	2024-02-06
7	Hendricks	2024-02-07
8	Henson	2024-02-08
9	Harrington	2024-02-09
10	Montgomery	2024-02-10

```
/*2) SPROC- Physician total admits for the past year, sorted by date.*/
```

```
CREATE PROC PhysicianAdmits_SPROC
AS
BEGIN
SELECT
    P.lastName AS 'Doctor Last Name',
    AD.admitDate AS 'Date Doctor Admitted a Patient'
FROM
    AdultDischarge AD
JOIN
    Physician P ON AD.admitDoc=P.doctorID
JOIN
    Patient PA ON AD.patientNo=PA.patientNo
WHERE
    AD.admitDate >= DATEADD(year, -1, GETDATE()) -- anything in the past year
ORDER BY AD.admitDate
END

EXEC PhysicianAdmits_SPROC
```

100 %

Results Messages

	Doctor Last Name	Date Doctor Admitted a Patient
1	Lancaster	2024-02-01
2	Delgado	2024-02-02
3	Hawthorne	2024-02-03
4	Whitaker	2024-02-04
5	McKinney	2024-02-05
6	Chambers	2024-02-06
7	Hendricks	2024-02-07
8	Henson	2024-02-08
9	Harrington	2024-02-09
10	Montgomery	2024-02-10

```
/*2) Parameter- Physician total admits for the past year, sorted by date */
```

```
CREATE PROC PhysicianAdmits PARA @DoctorLastName nvarchar(20), @PatientAdmitDate date
AS
BEGIN
SELECT
    P.lastName AS 'Doctor Last Name',
    AD.admitDate AS 'Date Doctor Admitted a Patient'
FROM
    AdultDischarge AD
JOIN
    Physician P ON AD.admitDoc=P.doctorID
JOIN
    Patient PA ON AD.patientNo=PA.patientNo
WHERE
    AD.admitDate >= DATEADD(year, -1, GETDATE()) and -- anything in the past year
    (P.lastName like @DoctorLastName + '%') and
    AD.admitDate = @PatientAdmitDate
ORDER BY AD.admitDate
END
```

USE [Hospital]

GO

DECLARE @return_value int

```
EXEC @return_value = [dbo].[PhysicianAdmits PARA]
    @DoctorLastName = N'L',
    @PatientAdmitDate = '2024-02-01'
```

SELECT 'Return Value' = @return_value

GO

100 %

Results Messages

	Doctor Last Name	Date Doctor Admitted a Patient
1	Lancaster	2024-02-01

--2) Logic Check

```
SELECT *
FROM PhysicianAdmits_VW
WHERE [Date Doctor Admitted a Patient] = '2024-02-01'
```

100 %

Results Messages

	Doctor Last Name	Date Doctor Admitted a Patient
1	Lancaster	2024-02-01

Hospital Database Views/SPROCs and Parameters

```

--3) View- 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. */
CREATE VIEW PatientTreatmentsPhysician_VW
AS
SELECT TOP 1000
    P.lastName AS 'Patient_Last_Name',
    T.name AS 'Treatment_Name',
    PH.lastName AS 'Physician_Last_Name',
    CAST(TA.dateTime AS Date) AS 'Treatment_Date'
FROM
    TreatmentAdministration AS TA
JOIN
    Patient AS P ON TA.patientNo=P.patientNo
JOIN
    Physician AS PH ON TA.doctorID=PH.doctorID
JOIN
    Treatment AS T ON TA.treatmentNo=T.treatmentNo
ORDER BY TA.dateTime
SELECT *
FROM PatientTreatmentsPhysician_VW

```

100 %

Results Messages

	Patient_Last_Name	Treatment_Name	Physician_Last_Name	Treatment_Date
1	Donald	X-ray	Hawthorne	2024-02-01
2	Johnson	Blood Test	Chambers	2024-02-03
3	Williams	Splinting	Lancaster	2024-02-04
4	Brown	Stitching	Harrington	2024-02-05
5	Taylor	Dressing Change	McKinney	2024-02-06
6	Martinez	Casting	Henson	2024-02-07
7	Garcia	IV Fluids	Lancaster	2024-02-08
8	Lopez	EKG	Whitaker	2024-02-09
9	Rodriguez	Nebulization	Hendricks	2024-02-10
10	Donald	Splinting	Lancaster	2024-02-19
11	Smith	Blood Test	McKinney	2024-02-20
12	Johnson	IV Fluids	Montgomery	2024-02-21
13	Williams	Stitching	Hawthorne	2024-02-22
14	Brown	X-ray	Hendricks	2024-02-23
15	Taylor	Nebulization	Harrington	2024-02-24
16	Martinez	Ultrasound	Delgado	2024-02-25
17	Garcia	Dressing Change	Chambers	2024-02-26
18	Lopez	EKG	Whitaker	2024-02-27
19	Rodriguez	Casting	Henson	2024-02-28

```

--3) SPROC- 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. */
CREATE PROC PatientTreatmentsPhysician_PARA @PatientLastName nvarchar(25), @TreatmentName varchar(20)
AS
BEGIN
SELECT
    P.lastName AS 'Patient_Last_Name',
    T.name AS 'Treatment_Name',
    PH.lastName AS 'Physician_Last_Name',
    CAST(TA.dateTime AS Date) AS 'Treatment_Date'
FROM
    TreatmentAdministration AS TA
JOIN
    Patient AS P ON TA.patientNo=P.patientNo
JOIN
    Physician AS PH ON TA.doctorID=PH.doctorID
JOIN
    Treatment AS T ON TA.treatmentNo=T.treatmentNo
WHERE
    (P.lastName LIKE @PatientLastName + '%') and
    (T.name LIKE @TreatmentName + '%')
ORDER BY TA.dateTime
END;

```

```

--3) SPROC- 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. */
CREATE PROC PatientTreatmentsPhysician_SPROC
AS
BEGIN
SELECT
    P.lastName AS 'Patient_Last_Name',
    T.name AS 'Treatment_Name',
    PH.lastName AS 'Physician_Last_Name',
    CAST(TA.dateTime AS Date) AS 'Treatment_Date'
FROM
    TreatmentAdministration AS TA
JOIN
    Patient AS P ON TA.patientNo=P.patientNo
JOIN
    Physician AS PH ON TA.doctorID=PH.doctorID
JOIN
    Treatment AS T ON TA.treatmentNo=T.treatmentNo
ORDER BY TA.dateTime
END;
EXECUTE PatientTreatmentsPhysician_SPROC

```

100 %

Results Messages

	Patient_Last_Name	Treatment_Name	Physician_Last_Name	Treatment_Date
1	Donald	X-ray	Hawthorne	2024-02-01
2	Johnson	Blood Test	Chambers	2024-02-03
3	Williams	Splinting	Lancaster	2024-02-04
4	Brown	Stitching	Harrington	2024-02-05
5	Taylor	Dressing Change	McKinney	2024-02-06
6	Martinez	Casting	Henson	2024-02-07
7	Garcia	IV Fluids	Lancaster	2024-02-08
8	Lopez	EKG	Whitaker	2024-02-09
9	Rodriguez	Nebulization	Hendricks	2024-02-10
10	Donald	Splinting	Lancaster	2024-02-19
11	Smith	Blood Test	McKinney	2024-02-20
12	Johnson	IV Fluids	Montgomery	2024-02-21
13	Williams	Stitching	Hawthorne	2024-02-22
14	Brown	X-ray	Hendricks	2024-02-23
15	Taylor	Nebulization	Harrington	2024-02-24
16	Martinez	Ultrasound	Delgado	2024-02-25
17	Garcia	Dressing Change	Chambers	2024-02-26
18	Lopez	EKG	Whitaker	2024-02-27
19	Rodriguez	Casting	Henson	2024-02-28

```

USE [Hospital]
GO

```

```

DECLARE @return_value int

```

```

EXEC @return_value = [dbo].[PatientTreatmentsPhysician_PARA]
    @PatientLastName = N'%',
    @TreatmentName = N'X-Ray'

```

```

SELECT 'Return Value' = @return_value

```

```

GO

```

100 %

Results Messages

	Patient_Last_Name	Treatment_Name	Physician_Last_Name	Treatment_Date
1	Donald	X-ray	Hawthorne	2024-02-01
2	Brown	X-ray	Hendricks	2024-02-23

```

--3) Logic Check

```

```

SELECT *
FROM PatientTreatmentsPhysician_VW
WHERE [Treatment_Name]='X-Ray'

```

100 %

Results Messages

	Patient_Last_Name	Treatment_Name	Physician_Last_Name	Treatment_Date
1	Donald	X-ray	Hawthorne	2024-02-01
2	Brown	X-ray	Hendricks	2024-02-23

Hospital Database Views/SPROCs and Parameters

```

/*4) View- Patient itemized bill: List of treatments and items, by charge and sorted by date.*/
ALTER VIEW PatientBills_Vw
AS
SELECT TOP 100
    'Treatment' AS 'Type',
    T.name AS 'Name',
    T.charge AS 'Charge',
    CAST(TA.dateTime AS DATE) AS 'Date', --casts the date from dateTime column
    P.lastName AS 'Patient Last Name'
FROM
    TreatmentAdministration AS TA
JOIN
    Treatment AS T ON TA.treatmentNo = T.treatmentNo
LEFT JOIN
    Patient AS P ON TA.patientNo = P.patientNo
UNION --Combines the results of both SELECT statements
SELECT TOP 100
    'Item' AS 'Type',
    I.name AS 'Name',
    I.charge AS 'Charge',
    IC.date,
    P.lastName
FROM
    ItemCharge AS IC
JOIN
    Item AS I ON IC.itemNo = I.itemNo
LEFT JOIN
    Patient AS P ON IC.patientNo = P.patientNo
ORDER BY Date
SELECT *
FROM PatientBills_Vw
ORDER BY Date

```

100 %

Results Messages

	Type	Name	Charge	Date	Patient Last Name
1	Item	Strong Bandage	5.50	2024-02-01	Donald
2	Treatment	X-ray	200.00	2024-02-01	Donald
3	Item	Syringe	2.25	2024-02-02	Smith
4	Item	Antibiotics	20.50	2024-02-03	Johnson
5	Treatment	Blood Test	100.00	2024-02-03	Johnson
6	Item	Alcohol Swabs	1.99	2024-02-04	Williams
7	Treatment	Splinting	250.00	2024-02-04	Williams
8	Item	Sanitizer	2.99	2024-02-05	Brown
9	Treatment	Stitching	150.00	2024-02-05	Brown
10	Item	Painkillers	10.99	2024-02-06	Taylor
11	Treatment	Dressing Change	100.00	2024-02-06	Taylor
12	Item	Ace Bandage	6.25	2024-02-07	Martinez
13	Treatment	Casting	350.00	2024-02-07	Martinez
14	Item	Gauze	3.75	2024-02-08	Garcia
15	Treatment	IV Fluids	200.00	2024-02-08	Garcia
16	Item	Thermometer	8.50	2024-02-09	Lopez
17	Treatment	EKG	150.00	2024-02-09	Lopez
18	Item	Gloves	3.25	2024-02-10	Rodriguez
19	Treatment	Nebulization	200.00	2024-02-10	Rodriguez
20	Treatment	Splinting	250.00	2024-02-19	Donald
21	Treatment	Blood Test	100.00	2024-02-20	Smith
22	Treatment	IV Fluids	200.00	2024-02-21	Johnson
23	Treatment	Stitching	150.00	2024-02-22	Williams
24	Treatment	X-ray	200.00	2024-02-23	Brown
25	Treatment	Nebulization	200.00	2024-02-24	Taylor
26	Treatment	Ultrasound	300.00	2024-02-25	Martinez
27	Treatment	Dressing Change	100.00	2024-02-26	Garcia
28	Treatment	EKG	150.00	2024-02-27	Lopez
29	Treatment	Casting	350.00	2024-02-28	Rodriguez

```

/*4) SPROC- Patient itemized bill: List of treatments and items, by charge and sorted by date.*/
ALTER PROC PatientBills_SPROC
AS
BEGIN
SELECT
    'Treatment' AS 'Type',
    T.name AS 'Name',
    T.charge AS 'Charge',
    CAST(TA.dateTime AS DATE) AS 'Date', --casts the date from dateTime column
    P.lastName AS 'Patient Last Name'
FROM
    TreatmentAdministration AS TA
JOIN
    Treatment AS T ON TA.treatmentNo = T.treatmentNo
LEFT JOIN
    Patient AS P ON TA.patientNo = P.patientNo
UNION --Combines the results of both SELECT statements
SELECT
    'Item' AS 'Type',
    I.name AS 'Name',
    I.charge AS 'Charge',
    IC.date,
    P.lastName
FROM
    ItemCharge AS IC
JOIN
    Item AS I ON IC.itemNo = I.itemNo
LEFT JOIN
    Patient AS P ON IC.patientNo = P.patientNo
ORDER BY Date
END;
EXECUTE PatientBills_SPROC

```

100 %

Results Messages

	Type	Name	Charge	Date	Patient Last Name
1	Item	Strong Bandage	5.50	2024-02-01	Donald
2	Treatment	X-ray	200.00	2024-02-01	Donald
3	Item	Syringe	2.25	2024-02-02	Smith
4	Item	Antibiotics	20.50	2024-02-03	Johnson
5	Treatment	Blood Test	100.00	2024-02-03	Johnson
6	Item	Alcohol Swabs	1.99	2024-02-04	Williams
7	Treatment	Splinting	250.00	2024-02-04	Williams
8	Item	Sanitizer	2.99	2024-02-05	Brown
9	Treatment	Stitching	150.00	2024-02-05	Brown
10	Item	Painkillers	10.99	2024-02-06	Taylor
11	Treatment	Dressing Change	100.00	2024-02-06	Taylor
12	Item	Ace Bandage	6.25	2024-02-07	Martinez
13	Treatment	Casting	350.00	2024-02-07	Martinez
14	Item	Gauze	3.75	2024-02-08	Garcia
15	Treatment	IV Fluids	200.00	2024-02-08	Garcia
16	Item	Thermometer	8.50	2024-02-09	Lopez
17	Treatment	EKG	150.00	2024-02-09	Lopez
18	Item	Gloves	3.25	2024-02-10	Rodriguez
19	Treatment	Nebulization	200.00	2024-02-10	Rodriguez
20	Treatment	Splinting	250.00	2024-02-19	Donald
21	Treatment	Blood Test	100.00	2024-02-20	Smith
22	Treatment	IV Fluids	200.00	2024-02-21	Johnson
23	Treatment	Stitching	150.00	2024-02-22	Williams
24	Treatment	X-ray	200.00	2024-02-23	Brown
25	Treatment	Nebulization	200.00	2024-02-24	Taylor
26	Treatment	Ultrasound	300.00	2024-02-25	Martinez
27	Treatment	Dressing Change	100.00	2024-02-26	Garcia
28	Treatment	EKG	150.00	2024-02-27	Lopez
29	Treatment	Casting	350.00	2024-02-28	Rodriguez

```

/*4) Parameter- Patient itemized bill: List of treatments and items, by charge and sorted by date.*/
ALTER PROC PatientBills_PARA @PatientLastName varchar(25), @TreatmentName varchar(20)
AS
BEGIN
SELECT
    'Treatment' AS 'Type',
    T.name AS 'Name',
    T.charge AS 'Charge',
    CAST(TA.dateTime AS DATE) AS 'Date', --casts the date from dateTime column
    P.lastName AS 'Patient Last Name'
FROM
    TreatmentAdministration AS TA
JOIN
    Treatment AS T ON TA.treatmentNo = T.treatmentNo
LEFT JOIN
    Patient AS P ON TA.patientNo = P.patientNo
WHERE
    P.lastName=@PatientLastName and
    (T.name LIKE @TreatmentName + '%')
UNION --Combines the results of both SELECT statements
SELECT
    'Item' AS 'Type',
    I.name AS 'Name',
    I.charge AS 'Charge',
    IC.date,
    P.lastName
FROM
    ItemCharge AS IC
JOIN
    Item AS I ON IC.itemNo = I.itemNo
LEFT JOIN
    Patient AS P ON IC.patientNo = P.patientNo
WHERE
    P.lastName=@PatientLastName
ORDER BY Date
END;

```

100 %

Results Messages

Commands completed successfully.

Completion time: 2024-02-24T23:45:42.0316969-05:00

```

USE [Hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[PatientBills_PARA]
    @PatientLastName = N'Donald',
    @TreatmentName = N''

SELECT 'Return Value' = @return_value
GO

```

100 %

Results Messages

	Type	Name	Charge	Date	Patient Last Name
1	Item	Strong Bandage	5.50	2024-02-01	Donald
2	Treatment	X-ray	200.00	2024-02-01	Donald
3	Treatment	Splinting	250.00	2024-02-19	Donald

```

--Logic Check
SELECT *
FROM PatientBills_Vw
WHERE [Patient Last Name] = 'Donald'

```

100 %

Results Messages

	Type	Name	Charge	Date	Patient Last Name
1	Item	Strong Bandage	5.50	2024-02-01	Donald
2	Treatment	Splinting	250.00	2024-02-19	Donald
3	Treatment	X-ray	200.00	2024-02-01	Donald

Hospital Database Views/SPROCs and Parameters

```
/*5) View- List all nurse-patient events with nurse name and patient name.*/
```

```
CREATE VIEW NursePatientEvents_VW
AS
SELECT
    P.firstName AS 'Patient First Name',
    N.firstName AS 'Nurse First Name',
    NP.event AS 'Event'
FROM
    NursePatient AS NP
JOIN
    Nurse AS N ON NP.nurseID=N.nurseID
JOIN
    Patient AS P ON NP.patientNo=P.patientNo
SELECT *
FROM NursePatientEvents_VW
```

```
/*5) SPROC- List all nurse-patient events with nurse name and patient name.*/
```

```
CREATE PROC NursePatientEvents_SPROC
AS
BEGIN
SELECT
    P.firstName AS 'Patient First Name',
    N.firstName AS 'Nurse First Name',
    NP.event AS 'Event'
FROM
    NursePatient AS NP
JOIN
    Nurse AS N ON NP.nurseID=N.nurseID
JOIN
    Patient AS P ON NP.patientNo=P.patientNo
END;
EXECUTE NursePatientEvents_SPROC
```

100 %

Results Messages

	Patient First Name	Nurse First Name	Event
1	James	Emma	wellness check
2	James	Liam	medication
3	Jane	Sophia	wellness check
4	Jane	Ethan	medication
5	Michael	William	wellness check
6	Michael	Liam	medication
7	Emily	William	wellness check
8	Emily	Ava	medication
9	David	Noah	wellness check
10	David	Isabella	medication
11	Sarah	Emma	wellness check
12	Sarah	Olivia	medication
13	Daniel	Liam	wellness check
14	Daniel	Isabella	medication
15	Jessica	James	wellness check
16	Jessica	William	medication
17	Christopher	Sophia	wellness check
18	Christopher	Noah	medication

100 %

Results Messages

	Patient First Name	Nurse First Name	Event
1	James	Emma	wellness check
2	James	Liam	medication
3	Jane	Sophia	wellness check
4	Jane	Ethan	medication
5	Michael	William	wellness check
6	Michael	Liam	medication
7	Emily	William	wellness check
8	Emily	Ava	medication
9	David	Noah	wellness check
10	David	Isabella	medication
11	Sarah	Emma	wellness check
12	Sarah	Olivia	medication
13	Daniel	Liam	wellness check
14	Daniel	Isabella	medication
15	Jessica	James	wellness check
16	Jessica	William	medication
17	Christopher	Sophia	wellness check
18	Christopher	Noah	medication

```
/*5) Parameter- List all nurse-patient events with nurse name and patient name.*/
```

```
CREATE PROC NursePatientEvents PARA @PatientFirstName varchar(25), @NurseFirstName varchar(25)
AS
BEGIN
SELECT
    P.firstName AS 'Patient First Name',
    N.firstName AS 'Nurse First Name',
    NP.event AS 'Event'
FROM
    NursePatient AS NP
JOIN
    Nurse AS N ON NP.nurseID=N.nurseID
JOIN
    Patient AS P ON NP.patientNo=P.patientNo
WHERE
    (P.firstName LIKE @PatientFirstName + '%') and
    (N.firstName LIKE @NurseFirstName + '%')
END;
```

```
USE [Hospital]
GO
DECLARE @return_value int
EXEC @return_value = [dbo].[NursePatientEvents PARA]
    @PatientFirstName = N'James',
    @NurseFirstName = N'%'
SELECT 'Return Value' = @return_value
GO
--Which nurse has seen James?
```

100 %

Results Messages

	Patient First Name	Nurse First Name	Event
1	James	Emma	wellness check
2	James	Liam	medication

```
--Logic Check
```

```
SELECT *
FROM
    NursePatientEvents_VW
WHERE
    [Patient First Name] = 'James'
```

100 %

Results Messages

	Patient First Name	Nurse First Name	Event
1	James	Emma	wellness check
2	James	Liam	medication

Hospital Database Views/SPROCs and Parameters

```

/*6) View- Find missing values for beds with and without patients, and for patients with and
without beds.*/
CREATE VIEW BedPatients_VW
AS
SELECT
    P.firstName AS 'Patient_Name',
    B.bedNo AS 'Bed_Number',
    B.type AS 'Bed_Type'
FROM
    Patient AS P
FULL JOIN
    Bed AS B ON P.bedNo=B.bedNo

SELECT *
FROM BedPatients_VW

```

100 %

Results Messages

	Patient_Name	Bed_Number	Bed_Type
1	James	1	manual
2	Jane	2	manual
3	Michael	3	manual
4	Emily	4	electric
5	David	5	manual
6	Sarah	6	manual
7	Daniel	7	manual
8	Jessica	8	electric
9	Christopher	9	manual
10	Amanda	10	manual
11	John	NULL	NULL
12	Alice	NULL	NULL
13	Robert	NULL	NULL
14	Samantha	NULL	NULL
15	William	NULL	NULL

```

/*6) SPROC- Find missing values for beds with and without patients, and for patients with and
without beds.*/
CREATE PROC BedPatients_SPROC
AS
BEGIN
SELECT
    P.firstName AS 'Patient_Name',
    B.bedNo AS 'Bed_Number',
    B.type AS 'Bed_Type'
FROM
    Patient AS P
FULL JOIN
    Bed AS B ON P.bedNo=B.bedNo
END;

EXECUTE BedPatients_SPROC

```

100 %

Results Messages

	Patient_Name	Bed_Number	Bed_Type
1	James	1	manual
2	Jane	2	manual
3	Michael	3	manual
4	Emily	4	electric
5	David	5	manual
6	Sarah	6	manual
7	Daniel	7	manual
8	Jessica	8	electric
9	Christopher	9	manual
10	Amanda	10	manual
11	John	NULL	NULL
12	Alice	NULL	NULL
13	Robert	NULL	NULL
14	Samantha	NULL	NULL
15	William	NULL	NULL

```

/*6) Parameter- Find missing values for beds with and without patients,
and for patients with and without bed*/
ALTER PROC BedPatients PARA @PatientFirstName varchar(25), @BedNumber int
AS
BEGIN
SELECT
    P.firstName AS 'Patient_Name',
    B.bedNo AS 'Bed_Number',
    B.type AS 'Bed_Type'
FROM
    Patient AS P
FULL JOIN
    Bed AS B ON P.bedNo=B.bedNo
WHERE
    (P.firstName LIKE @PatientFirstName + '%') AND
    (
        (@BedNumber IS NULL AND B.bedNo IS NULL) -- Check for NULL @BedNumber and NULL bedNo
        OR
        (B.bedNo = @BedNumber) -- Check for non-NULL @BedNumber
    )
END;

```

```

USE [Hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[BedPatients PARA]
    @PatientFirstName = N'%',
    @BedNumber = NULL

SELECT 'Return Value' = @return_value
GO

```

100 %

Results Messages

	Patient_Name	Bed_Number	Bed_Type
1	John	NULL	NULL
2	Alice	NULL	NULL
3	Robert	NULL	NULL
4	Samantha	NULL	NULL
5	William	NULL	NULL

```

--Logic Check
SELECT *
FROM BedPatients_VW
WHERE
    Bed_Number IS NULL

```

100 %

Results Messages

	Patient_Name	Bed_Number	Bed_Type
1	John	NULL	NULL
2	Alice	NULL	NULL
3	Robert	NULL	NULL
4	Samantha	NULL	NULL
5	William	NULL	NULL

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Hospital Database Views/SPROCs and Parameters

```

/*7) View- Find missing values of nurses who have not seen a patient and all patients that
have not seen a nurse.*/
CREATE VIEW
UnseenPatientsAvailableNurses_VW
AS
SELECT
CONCAT(P.firstName, ' ', P.lastName) AS 'patient_full_name', -- Concatenate first and last names (with a space in between)
CONCAT(N.firstName, ' ', N.lastName) AS 'nurse_full_name'
FROM
NursePatient AS NP
FULL JOIN
Nurse AS N ON NP.nurseID = N.nurseID
FULL JOIN
Patient AS P ON NP.patientNo = P.patientNo
WHERE
P.firstName IS NULL OR
N.firstName IS NULL
SELECT *
FROM UnseenPatientsAvailableNurses_VW

```

patient_full_name	nurse_full_name
	Grace Clark
	Henry Adams
	Sophie Baker
	Jack Campbell
	Oliver Clarkson
	Chloe Cooper
	Lucas Evans
	Lily Fisher
	Mia Gray
	Owen Harris
William Taylor	
Alice Johnson	
Amanda Rodriguez	
Robert Brown	
John Doe	
Samantha Smith	

```

/*7) SPROC- Find missing values of nurses who have not seen a patient and all patients that
have not seen a nurse.*/
CREATE PROC UnseenPatientsAvailableNurses_SPROC
AS
BEGIN
SELECT
CONCAT(P.firstName, ' ', P.lastName) AS 'patient_full_name', -- Concatenate first and last names (with a space in between)
CONCAT(N.firstName, ' ', N.lastName) AS 'nurse_full_name'
FROM
NursePatient AS NP
FULL JOIN
Nurse AS N ON NP.nurseID = N.nurseID
FULL JOIN
Patient AS P ON NP.patientNo = P.patientNo
WHERE
P.firstName IS NULL OR
N.firstName IS NULL
END
EXECUTE UnseenPatientsAvailableNurses_SPROC

```

patient_full_name	nurse_full_name
	Grace Clark
	Henry Adams
	Sophie Baker
	Jack Campbell
	Oliver Clarkson
	Chloe Cooper
	Lucas Evans
	Lily Fisher
	Mia Gray
	Owen Harris
William Taylor	
Alice Johnson	
Amanda Rodriguez	
Robert Brown	
John Doe	
Samantha Smith	

```

/*7) PARA- Find missing values of nurses who have not seen a patient and all patients that
have not seen a nurse.*/
ALTER PROC UnseenPatientsAvailableNurses PARA
@PatientFirstName varchar(25),
@NurseFirstName varchar(25)
AS
BEGIN
-- Query to find patients who have not seen a nurse
SELECT
CONCAT(P.firstName, ' ', P.lastName) AS 'patient_full_name',
NULL AS 'nurse_full_name' -- Patients who have not seen a nurse
FROM
Patient AS P
LEFT JOIN
NursePatient AS NP ON P.patientNo = NP.patientNo
LEFT JOIN
Nurse AS N ON NP.nurseID = N.nurseID
WHERE
N.nurseID IS NULL -- No nurse assigned to the patient
AND P.firstName LIKE @PatientFirstName + '%'

UNION ALL

-- Query to find nurses who have not seen a patient
SELECT
NULL AS 'patient_full_name', -- Nurses who have not seen a patient
CONCAT(N.firstName, ' ', N.lastName) AS 'nurse_full_name'
FROM
Nurse AS N
LEFT JOIN
NursePatient AS NP ON N.nurseID = NP.nurseID
LEFT JOIN
Patient AS P ON NP.patientNo = P.patientNo
WHERE
P.patientNo IS NULL -- No patient assigned to the nurse
AND N.firstName LIKE @NurseFirstName + '%'
END

```

```

USE [Hospital]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[UnseenPatientsAvailableNurses PARA]
@PatientFirstName = NULL,
@NurseFirstName = 'N'G'

SELECT 'Return Value' = @return_value
GO

```

patient_full_name	nurse_full_name
1	NULL Grace Clark

```

--Logic Check
SELECT *
FROM UnseenPatientsAvailableNurses_VW
WHERE [nurse_full_name] LIKE '%Grace%'

```

patient_full_name	nurse_full_name
1	Grace Clark

Hospital Database Views/SPROCs and Parameters

```

/*8) View- Create a distribution of nurses across all wards, and a di
across nurses.*/
CREATE VIEW NurseWardDistribution_VW
AS
SELECT
    CONCAT(N.firstName, ' ',N.lastName) AS 'Nurse_Full_Name',
    W.location AS 'Ward_Name'
FROM
    Nurse AS N
CROSS JOIN
    Ward AS W
SELECT *
FROM NurseWardDistribution_VW

```

100 %

Results Messages

	Nurse_Full_Name	Ward_Name
1	Emma Smith	Emergency Department East Wing
2	James Johnson	Emergency Department East Wing
3	Olivia Williams	Emergency Department East Wing
4	William Brown	Emergency Department East Wing
5	Ava Jones	Emergency Department East Wing
6	Liam Davis	Emergency Department East Wing
7	Sophia Miller	Emergency Department East Wing
8	Noah Wilson	Emergency Department East Wing
9	Isabella Taylor	Emergency Department East Wing
10	Ethan Anderson	Emergency Department East Wing
11	Grace Clark	Emergency Department East Wing
12	Henry Adams	Emergency Department East Wing
13	Sophie Baker	Emergency Department East Wing
14	Jack Campbell	Emergency Department East Wing
15	Oliver Clarkson	Emergency Department East Wing
16	Chloe Cooper	Emergency Department East Wing
17	Lucas Evans	Emergency Department East Wing
18	Lily Fisher	Emergency Department East Wing
19	Mia Gray	Emergency Department East Wing
20	Owen Harris	Emergency Department East Wing
21	Emma Smith	Pediatrics West Wing
22	James Johnson	Pediatrics West Wing
23	Olivia Williams	Pediatrics West Wing

```

/*8) SPROC- Create a distribution of nurses across all wards, and a distribution of all wards
across nurses.*/
CREATE PROC NurseWardDistribution_SPROC
AS
BEGIN
SELECT
    CONCAT(N.firstName, ' ',N.lastName) AS 'Nurse_Full_Name',
    W.location AS 'Ward_Name'
FROM
    Nurse AS N
CROSS JOIN
    Ward AS W
END
EXECUTE NurseWardDistribution_SPROC

```

100 %

Results Messages

	Nurse_Full_Name	Ward_Name
1	Emma Smith	Emergency Department East Wing
2	James Johnson	Emergency Department East Wing
3	Olivia Williams	Emergency Department East Wing
4	William Brown	Emergency Department East Wing
5	Ava Jones	Emergency Department East Wing
6	Liam Davis	Emergency Department East Wing
7	Sophia Miller	Emergency Department East Wing
8	Noah Wilson	Emergency Department East Wing
9	Isabella Taylor	Emergency Department East Wing
10	Ethan Anderson	Emergency Department East Wing
11	Grace Clark	Emergency Department East Wing
12	Henry Adams	Emergency Department East Wing
13	Sophie Baker	Emergency Department East Wing
14	Jack Campbell	Emergency Department East Wing
15	Oliver Clarkson	Emergency Department East Wing
16	Chloe Cooper	Emergency Department East Wing
17	Lucas Evans	Emergency Department East Wing
18	Lily Fisher	Emergency Department East Wing
19	Mia Gray	Emergency Department East Wing
20	Owen Harris	Emergency Department East Wing
21	Emma Smith	Pediatrics West Wing
22	James Johnson	Pediatrics West Wing
23	Olivia Williams	Pediatrics West Wing
24	William Brown	Pediatrics West Wing
25	Ava Jones	Pediatrics West Wing
26	Liam Davis	Pediatrics West Wing

```

/*8) Parameter- Create a distribution of nurses across all wards, and a distribution of all wards
across nurses.*/
CREATE PROC NurseWardDistribution PARA @NurseLastName varchar(25), @WardName varchar(45)
AS
BEGIN
SELECT
    CONCAT(N.firstName, ' ',N.lastName) AS 'Nurse_Full_Name',
    W.location AS 'Ward_Name'
FROM
    Nurse AS N
CROSS JOIN
    Ward AS W
WHERE
    (N.lastName LIKE @NurseLastName + '%') and
    (W.location LIKE @WardName + '%')
END

```

```

USE [Hospital]
GO

DECLARE @return_value int

EXEC     @return_value = [dbo].[NurseWardDistribution PARA]
        @NurseLastName = N'Smith',
        @WardName = N''

SELECT 'Return Value' = @return_value
GO

```

100 %

Results Messages

	Nurse_Full_Name	Ward_Name
1	Emma Smith	Emergency Department East Wing
2	Emma Smith	Pediatrics West Wing
3	Emma Smith	Surgical Main Building
4	Emma Smith	Intensive Care Unit East Wing
5	Emma Smith	Maternity North Wing
6	Emma Smith	Orthopedic South Wing
7	Emma Smith	Cardiology West Wing
8	Emma Smith	Neurology Main Building
9	Emma Smith	Psychiatric East Wing
10	Emma Smith	Oncology Main Building

```

--Logic Check
SELECT *
FROM NurseWardDistribution_VW
WHERE [Nurse_Full_Name] = 'Emma Smith'

```

100 %

Results Messages

	Nurse_Full_Name	Ward_Name
1	Emma Smith	Emergency Department East Wing
2	Emma Smith	Pediatrics West Wing
3	Emma Smith	Surgical Main Building
4	Emma Smith	Intensive Care Unit East Wing
5	Emma Smith	Maternity North Wing
6	Emma Smith	Orthopedic South Wing
7	Emma Smith	Cardiology West Wing
8	Emma Smith	Neurology Main Building
9	Emma Smith	Psychiatric East Wing
10	Emma Smith	Oncology Main Building

Hospital Database Views/SPROCs and Parameters

```
/*9) View- Create a distribution of beds across all wards, and a distribution of all wards
```

```
across beds.*/
CREATE VIEW BedWardDistribution_VW
AS
SELECT
    CONCAT (B.bedNo, ' ', B.type, ' ', B.size) AS 'bed_number_type_size', W.location AS 'ward_name'
FROM
    Bed as B
CROSS JOIN
    Ward AS W
SELECT *
FROM BedWardDistribution_VW
```

100 %

Results Messages

	bed_number_type_size	ward_name
1	1 manual L	Emergency Department East Wing
2	1 manual L	Pediatrics West Wing
3	1 manual L	Surgical Main Building
4	1 manual L	Intensive Care Unit East Wing
5	1 manual L	Maternity North Wing
6	1 manual L	Orthopedic South Wing
7	1 manual L	Cardiology West Wing
8	1 manual L	Neurology Main Building
9	1 manual L	Psychiatric East Wing
10	1 manual L	Oncology Main Building
11	2 manual L	Emergency Department East Wing
12	2 manual L	Pediatrics West Wing
13	2 manual L	Surgical Main Building
14	2 manual L	Intensive Care Unit East Wing
15	2 manual L	Maternity North Wing
16	2 manual L	Orthopedic South Wing
17	2 manual L	Cardiology West Wing

```
/*9) SPROC- Create a distribution of beds across all wards, and a distribution of all wards
across beds.*/
CREATE PROC BedWardDistribution_SPROC
AS
BEGIN
SELECT
    CONCAT (B.bedNo, ' ', B.type, ' ', B.size) AS 'bed_number_type_size', W.location AS 'ward_name'
FROM
    Bed as B
CROSS JOIN
    Ward AS W
END
EXECUTE BedWardDistribution_SPROC
```

100 %

Results Messages

	bed_number_type_size	ward_name
1	1 manual L	Emergency Department East Wing
2	1 manual L	Pediatrics West Wing
3	1 manual L	Surgical Main Building
4	1 manual L	Intensive Care Unit East Wing
5	1 manual L	Maternity North Wing
6	1 manual L	Orthopedic South Wing
7	1 manual L	Cardiology West Wing
8	1 manual L	Neurology Main Building
9	1 manual L	Psychiatric East Wing
10	1 manual L	Oncology Main Building
11	2 manual L	Emergency Department East Wing
12	2 manual L	Pediatrics West Wing
13	2 manual L	Surgical Main Building
14	2 manual L	Intensive Care Unit East Wing
15	2 manual L	Maternity North Wing
16	2 manual L	Orthopedic South Wing

```
/*9) Parameter- Create a distribution of beds across all wards, and a distribution of all wards
```

```
across beds.*/
CREATE PROC BedWardDistribution PARA @BedSize char(2), @WardName varchar(35)
AS
BEGIN
SELECT
    CONCAT (B.bedNo, ' ', B.type, ' ', B.size) AS 'bed_number_type_size', W.location AS 'ward_name'
FROM
    Bed as B
CROSS JOIN
    Ward AS W
WHERE
    B.size=@BedSize and
    (W.location LIKE @WardName + '%')
END
```

```
--Logic Check
```

```
SELECT *
FROM BedWardDistribution_VW
WHERE [Ward Name] = 'Emergency Department East Wing'
```

100 %

Results Messages

	bed_number_type_size	ward_name
1	1 manual L	Emergency Department East Wing
2	2 manual L	Emergency Department East Wing
3	3 manual S	Emergency Department East Wing
4	4 electric L	Emergency Department East Wing
5	5 manual XL	Emergency Department East Wing
6	6 manual L	Emergency Department East Wing
7	7 manual L	Emergency Department East Wing
8	8 electric XL	Emergency Department East Wing
9	9 manual L	Emergency Department East Wing
10	10 manual XL	Emergency Department East Wing

```
USE [Hospital]
GO
DECLARE @return_value int
EXEC @return_value = [dbo].[BedWardDistribution PARA]
    @BedSize = N'L',
    @WardName = N'Emergency'
SELECT 'Return Value' = @return_value
GO
```

100 %

Results Messages

	bed_number_type_size	ward_name
1	1 manual L	Emergency Department East Wing
2	2 manual L	Emergency Department East Wing
3	4 electric L	Emergency Department East Wing
4	6 manual L	Emergency Department East Wing
5	7 manual L	Emergency Department East Wing
6	9 manual L	Emergency Department East Wing