

```
-- Count Aggregator to see which nurses have the highest nurse-patient events
```

```
SELECT TOP 25
    CONCAT(N.firstName, ' ', N.lastName) AS 'nurse_full_name',
    COUNT(NP.eventID) AS 'number_of_nurse_patient_events'
FROM NursePatient NP
JOIN
    Nurse N ON NP.nurseID = N.nurseID
GROUP BY
    CONCAT(N.firstName, ' ', N.lastName)
ORDER BY
    COUNT(NP.eventID) DESC
```

100 %

Results Messages

	nurse_full_name	number_of_nurse_patient_events
1	Ferdinand Blake	3
2	Lester Mccray	3
3	Liam Davis	3
4	Otto Mendoza	3
5	William Brown	3
6	Cameron Cunningham	2
7	Amelia May	2
8	Catherine Burton	2
9	Emma Smith	2
10	Chloe Cooper	2
11	Grant Gregory	2
12	Henry Adams	2
13	Isabella Taylor	2
14	Jolie Glass	2
15	Kadeem Collier	2
16	Lily Fisher	2
17	Noah Wilson	2
18	Selma Graves	2
19	Sophia Miller	2
20	Xenos Kim	2
21	Grace Clark	1
22	Ginger Garner	1
23	Charissa Sparks	1
24	Fay Lancaster	1
25	Fallon Jefferson	1

```
-- Count Logic Check (also shows us what 3 events Ferndinand had)
```

```
SELECT NP.event, NP.date, N.firstName, N.lastName
FROM
    NursePatient NP
JOIN
    Nurse N ON NP.nurseID=N.nurseID
WHERE
    N.lastName = 'Blake'
```

100 %

Results Messages

	event	date	firstName	lastName
1	assistance	2024-02-18	Ferdinand	Blake
2	wellness check	2024-01-26	Ferdinand	Blake
3	treatment admin	2024-01-23	Ferdinand	Blake

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```
--Sum Aggregator to see which nurses have worked the most
SELECT TOP 10
    N.nurseID,
    CONCAT(N.firstName, ' ', N.lastName) AS 'nurse_full_name',
    SUM(NA.hours) AS 'total_hours_worked'
FROM
    NurseAssignment NA
JOIN
    Nurse N ON NA.nurseID=N.nurseID
GROUP BY
    CONCAT(N.firstName, ' ', N.lastName), N.nurseID
ORDER BY
    SUM(NA.hours) DESC
```

	nurseID	nurse_full_name	total_hours_worked
1	4	William Brown	30.00
2	51	Declan Holt	29.50
3	57	Damon Shepherd	26.50
4	78	Zachery Kinney	23.00
5	105	Reese Albert	22.50
6	28	Catherine Burton	22.00
7	77	Hakeem Dean	21.00
8	89	Xenos Kim	21.00
9	8	Noah Wilson	20.50
10	5	Ava Jones	19.00

```
-- Sum Logic Check (shows us what dates William Brown worked)
-- hours also do indeed add up to 30/ passes logic check
SELECT *
FROM NurseAssignment
WHERE nurseID='4'
```

	nurseID	wardID	date	hours
1	4	4	2024-02-15	9.00
2	4	5	2024-01-03	9.50
3	4	6	2023-11-16	11.50

```
/*AVG Aggregator to see the average amount of times that a unique item
is charged*/
SELECT AVG(item_count) AS 'average_item_count'
FROM
    (SELECT itemNo, COUNT(*) AS item_count
    FROM ItemCharge
    GROUP BY itemNo)
AS COUNTS
```

	average_item_count
1	2

```
/*AVG Logic Check; Based on a quick view of the count of charges
in the 20 items, 2 seems like a reasonable average*/
SELECT
    I.name AS 'Item Name',
    COUNT(*) AS item_count
FROM
    ItemCharge IC
JOIN
    Item I ON IC.itemNo=I.itemNo
GROUP BY
    I.name
ORDER BY COUNT(*)
```

	Item Name	item_count
1	Ace Bandage	1
2	Emergency Oxygen Tank	1
3	Medical Oxygen Concentrator	1
4	Nebulizer Machine	1
5	Patient Lift System	1
6	Portable EKG Monitor	1
7	Syringe	1
8	Ultrasound Imaging Kit	1
9	Wheelchair Accessible Scale	1
10	Strong Bandage	2
11	Painkillers	2
12	Automated External Defibrillator (AED)	2
13	Blood Glucose Monitor	2
14	Gloves	3
15	Thermometer	3
16	Alcohol Swabs	4
17	Antibiotics	4
18	Gauze	4
19	Digital Thermometer	5
20	Sanitizer	5

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```

/*MIN Aggregator to display which Item has the lowest charge*/
SELECT
    I.name,
    I.charge
FROM
    Item I
WHERE
    I.charge = (SELECT MIN(charge) FROM Item)
/*We have to do a subquery, otherwise we would have to GROUP BY
the item name as well (if we want to see what item has the lowest charge),
but that would yield a list of all the items with the item's lowest charge,
which would be the same across the board since there's only one fixed
charge per item*/

```

100 %

Results Messages

	name	charge
1	Alcohol Swabs	1.99

```

/*MIN Logic Check; Based on a quick view of the charges,
it's clear alcohol swabs seem to have the lowest charge*/
SELECT *
FROM Item
ORDER BY Item.charge

```

100 %

Results Messages

	itemNo	name	charge
1	8	Alcohol Swabs	1.99
2	5	Syringe	2.25
3	10	Sanitizer	2.99
4	9	Gloves	3.25
5	4	Gauze	3.75
6	1	Strong Bandage	5.50
7	7	Ace Bandage	6.25
8	6	Thermometer	8.50
9	2	Painkillers	10.99
10	11	Digital Thermometer	14.99
11	3	Antibiotics	20.50
12	16	Blood Glucose Monitor	39.99
13	17	Nebulizer Machine	89.99
14	18	Wheelchair Accessible Scale	199.99
15	12	Emergency Oxygen Tank	299.99
16	13	Portable EKG Monitor	499.99
17	19	Medical Oxygen Concentrator	699.99
18	15	Automated External Defibrillator (AED)	899.99
19	14	Ultrasound Imaging Kit	999.99
20	20	Patient Lift System	1499.99

```

/*MAX Aggregator to display the oldest patient that has been in a ward
based on information we currently have*/

```

```

SELECT
    W.location,
    MAX(P.age) AS oldest_patient_ever_recorded
FROM
    Patient P
JOIN
    Bed B ON P.bedNo=B.bedNo
JOIN
    Ward W ON B.wardID=W.wardID
GROUP BY
    W.location

```

100 %

Results Messages

	location	oldest_patient_ever_recorded
1	Cardiology West Wing	94
2	Emergency Department East Wing	34
3	Intensive Care Unit East Wing	68
4	Maternity North Wing	82
5	Neurology Main Building	84
6	Oncology Main Building	96
7	Orthopedic South Wing	48
8	Pediatrics West Wing	49
9	Psychiatric East Wing	41
10	Surgical Main Building	87

```

/*MAX Logic Check; Based on 2 quick queries,
Galena Hart has been in the Cardiology West Wing and is 94*/

```

```

SELECT *
FROM Patient
WHERE age = 94

SELECT
    W.location
FROM
    Bed B
JOIN
    Ward W ON B.wardID=W.wardID
WHERE
    B.bedNo=30

```

100 %

Results Messages

	patientNo	firstName	lastName	gender	dateOfBirth	age	street	city	state	zip	bedNo	phone
1	30	Galena	Hart	M	1930-12-30	94	9306 Id, Ave	Putre	LA	44117	30	+1332872830

  

	location
1	Cardiology West Wing

