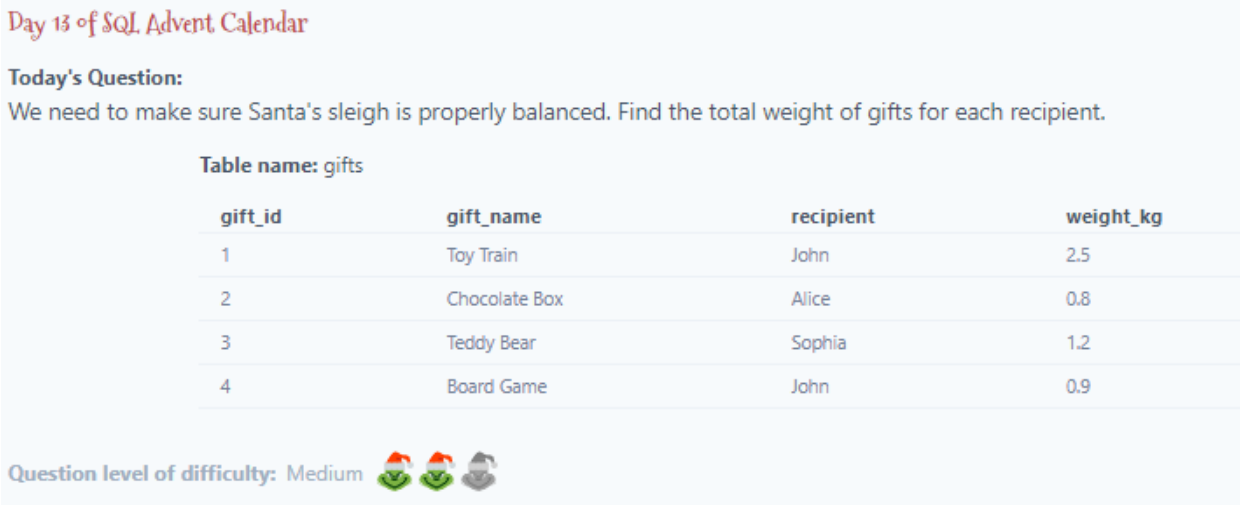
SQL Advent Calendar 2024 IIIrd Quarter



Day 13 of SQL Advent Calendar

Today's Question:

We need to make sure Santa's sleigh is properly balanced. Find the total weight of gifts for each recipient.

Table name: gifts

gift_id	gift_name	recipient	weight_kg
1	Toy Train	John	2.5
2	Chocolate Box	Alice	0.8
3	Teddy Bear	Sophia	1.2
4	Board Game	John	0.9

Question level of difficulty: Medium

Code:

```sql
SELECT
    recipient,
    SUM(weight_kg) as gifts_total_weight
FROM gifts
GROUP BY recipient;
```

Output:

RECIPIENT	GIFTS_TOTAL_WEIGHT
Alice	0.8
John	3.4
Sophia	1.2

Day 14 of SQL Advent Calendar

Today's Question:

Which ski resorts had snowfall greater than 50 inches?

Table name: snowfall

resort_name	location	snowfall_inches
Snowy Peaks	Colorado	60
Winter Wonderland	Utah	45
Frozen Slopes	Alaska	75

Question level of difficulty: Easy 

Code:

```sql
SELECT
    resort_name
FROM snowfall
WHERE snowfall_inches > 50;
```

Output:

RESORT_NAME
Snowy Peaks
Frozen Slopes

Day 15 of SQL Advent Calendar

Today's Question:

A family reunion is being planned, and the organizer wants to identify the three family members with the most children. Write a query to calculate the total number of children for each parent and rank them. Include the parent's name and their total number of children in the result.

Table name: family_members

member_id	name	age
1	Alice	30
2	Bob	58
3	Charlie	33
4	Diana	55
5	Eve	5
6	Frank	60
7	Grace	32
8	Hannah	8
9	Ian	12
10	Jack	3

Table name: parent_child_relationships

parent_id	child_id
2	1
3	5
4	1
6	7
6	8
7	9
7	10
4	8

Question level of difficulty: Hard 

Code:

```sql
SELECT
    fam.name AS parent_name,
    COUNT(pcr.child_id) as num_children
FROM family_members fam
INNER JOIN parent_child_relationships pcr
ON fam.member_id = pcr.parent_id
GROUP BY fam.member_id
ORDER BY num_children DESC
LIMIT 3;
```

Output:

PARENT_NAME	NUM_CHILDREN
Grace	2
Frank	2
Diana	2

Day 16 of SQL Advent Calendar

Today's Question:

As the owner of a candy store, you want to understand which of your products are selling best. Write a query to calculate the total revenue generated from each candy category.

Table name: candy_sales

sale_id	candy_name	quantity_sold	price_per_unit	category
1	Candy Cane	20	1.5	Sweets
2	Chocolate Bar	10	2	Chocolate
3	Lollipop	5	0.75	Sweets
4	Dark Chocolate Truffle	8	2.5	Chocolate
5	Gummy Bears	15	1.2	Sweets
6	Chocolate Fudge	12	3	Chocolate

Question level of difficulty: Medium 

Code:

```sql
SELECT
    SUM(price_per_unit * quantity_sold) AS total_revenue,
    category AS candy_category
FROM candy_sales
GROUP BY category;
```

Output:

TOTAL_REVENUE	CANDY_CATEGORY
76	Chocolate
51.75	Sweets

Day 17 of SQL Advent Calendar

Today's Question:

The Grinch is planning out his pranks for this holiday season. Which pranks have a difficulty level of "Advanced" or "Expert"? List the prank name and location (both in descending order).

Table name: grinch_pranks

prank_id	prank_name	location	difficulty
1	Stealing Stockings	Whoville	Beginner
2	Christmas Tree Topple	Whoville Town Square	Advanced
3	Present Swap	Cindy Lous House	Beginner
4	Sleigh Sabotage	Mount Crumpit	Expert
5	Chimney Block	Mayors Mansion	Expert

Question level of difficulty: Easy 

Code:

```sql
SELECT
    prank_name AS prank,
    location AS prank_location
FROM grinch_pranks
WHERE difficulty = 'Advanced' OR difficulty = 'Expert'
ORDER BY prank_name DESC, location DESC;
```

Output:

PRANK	PRANK_LOCATION
Sleigh Sabotage	Mount Crumpit
Christmas Tree Topple	Whoville Town Square
Chimney Block	Mayors Mansion

Day 16 of SQL Advent Calendar

Today's Question:
A travel agency is promoting activities for a "Summer Christmas" party. They want to identify the top 2 activities based on the average rating. Write a query to rank the activities by average rating.

Table name: activities

activity_id	activity_name
1	Surfing Lessons
2	Jet Skiing
3	Sunset Yoga

Table name: activity_ratings

rating_id	activity_id	rating
1	1	4.7
2	1	4.8
3	1	4.9
4	2	4.6
5	2	4.7
6	2	4.8
7	2	4.9
8	3	4.8
9	3	4.7
10	3	4.9
11	3	4.8
12	3	4.9

Question level of difficulty: Hard 

Code:

```sql
SELECT
    acts.activity_name AS activity,
    AVG(rates.rating) AS avg_rating
FROM activities acts
INNER JOIN activity_ratings rates
ON acts.activity_id = rates.activity_id
GROUP BY rates.activity_id
ORDER BY avg_rating DESC
LIMIT 2;
```

Output:

ACTIVITY	AVG_RATING
Sunset Yoga	4.82
Surfing Lessons	4.8