SQL CHALLENGE



Pub Pricing Analysis

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Intro :-

• You are a Pricing Analyst working for a pub chain called 'Pubs "R" Us,' You have been tasked with analysing the drinks prices and sales to gain a greater insight into how the pubs in your chain are performing.

TABLE

pub_id	pub_name	city	state	country	
1	The Red Lion	London	England	United Kingdom	
2	The Dubliner	Dublin	Dublin	Ireland	3
3	The Cheers Bar	Boston	Massachusetts	United States	- 8
4	La Cerveceria	Barcelona	Catalonia	Spain	

beverages

beverage_id	beverage_name	category	alcohol_content	price_per_unit	
1	Guiness	Beer	4.2	5.99	
2	Jameson	Whiskey	40	29.99	
3	Mojito	Cocktail	12	8.99	
4	Chardonnay	Wine	13.5	12.99	
5	IPA	Beer	6.8	4.99	
6	Tequila	Spirit	38	24.99	

ratings

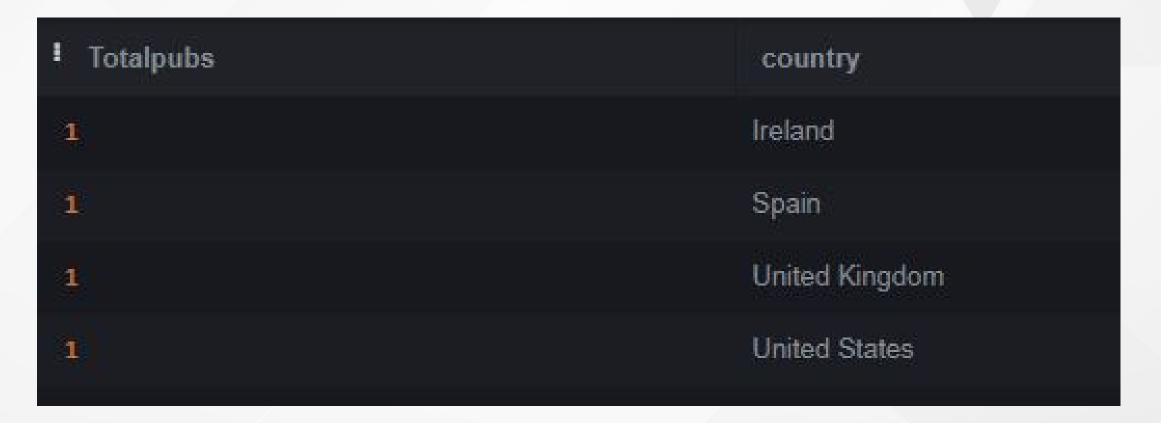
rating_id	pub_id	customer_name	rating	review
1	1	John Smith	4.5	Great pub with a wide selection of beers
2	1	Emma Johnson	4.8	Excellent service and cozy atmosphere
3	2	Michael Brown	4.2	Authentic atmosphere and great beers
4	3	Sophia Davis	4.6	The cocktails were amazing! Will definitely come back
5	4	Oliver Wilson	4.9	The wine selection here is outstanding
6	4	Isabella Moore	4.3	Had a great time trying different spirits
7	1.	Sophia Davis	4.7	Loved the pub food! Great ambience
8	2	Ethan Johnson	4.5	A good place to hang out with friends

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sale id	pub_id	beverage_id	quantity	transaction_date
1	1	1	10	1/5/23
2	1	2	5	1/5/23
3	2	1	8	1/5/23
4	3	3	12	2/5/23
5	4	4	3	2/5/23
6	4	- 6	- 6	3/5/23
7	2	3	6	3/5/23
8	3	1	15	3/5/23
9	3	4	7	3/5/23
10	4	1	10	4/5/23
11	1	3	. 5	6/5/23
12	2	2	3	9/5/23
13	2	5	9	9/5/23
14	3	6	- 4	9/5/23
15	4	3	7	9/5/23
16	4	4	2	9/5/23
17	1	4	- 6	11/5/23
18	1	6	8	11/5/23
19	2	1	12	12/5/23
20	3	5	. 5	13/5/23

1. How many pubs are located in each country?

select count(pub_id) as Totalpubs ,country from pubs GROUP by country ;



2. What is the total sales amount for each pub including the beverage price and quantity sold?

SELECT pub_name, SUM (price_per_unit * quantity) As Total_SalesAmount from beverages join sales ON beverages.beverage_id = sales.beverage_id join pubs ON pubs.pub_id = sales.pub_id GROUP BY pub_name;

! pub_name	Total_SalesAmount
La Cerveceria	337.72
The Cheers Bar	413.57
The Dubliner	308.62
The Red Lion	532.66

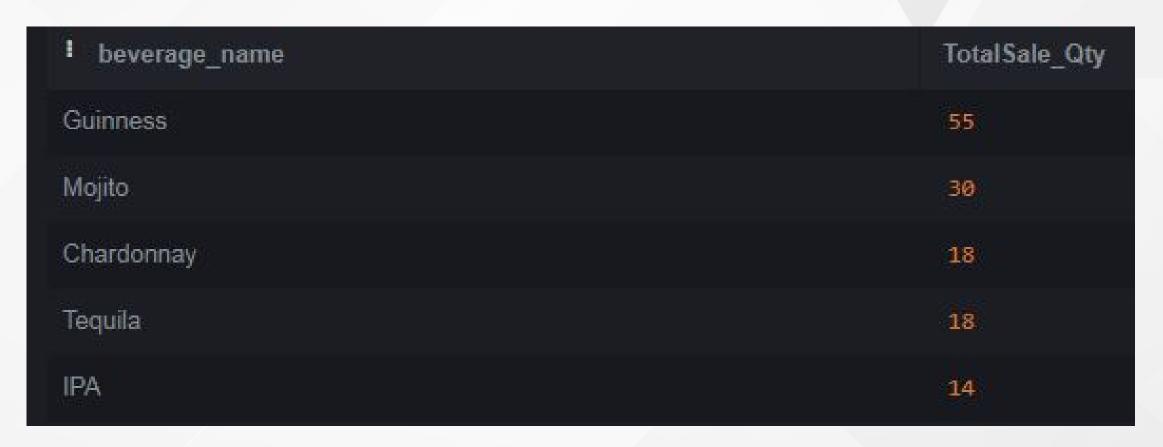
3. Which pub has the highest average rating?

SELECT pub_name, avg(rating) As Avg_Rates from ratings join pubs ON ratings.rating_id = pubs.pub_id GROUP BY pub_name order by Avg_Rates DESC;

• pub_name	Avg_Rates
The Dubliner	4.8
La Cerveceria	4.6
The Red Lion	4.5
The Cheers Bar	4.2

4. What are the top 5 beverages by sales quantity across all pubs?

select Top 5 beverage_name,SUM(quantity) As TotalSale_Qty from sales join beverages ON beverages.beverage_id = sales.beverage_id GROUP BY beverage_name order by TotalSale_Qty DESC;



5. How many sales transactions occurred on each date?

SELECT count(sale_id) As Sale_Transaction, transaction_date from sales GROUP BY transaction_date;

! Sale_Transaction	transaction_date
3	2023-05-01
2	2023-05-02
4	2023-05-03
1	2023-05-04
1	2023-05-06
5	2023-05-09
2	2023-05-11
11	2023-05-12
	2023-05-13

6. Find the name of someone that had cocktails and which pub they had it in ?

SELECT customer_name,category,pub_name from ratings

JOIN pubs ON pubs.pub_id = ratings.rating_id

join sales ON sales.sale_id = pubs.pub_id

join beverages ON beverages.beverage_id = sales.sale_id

where category = 'Cocktail';

* customer_name	category	pub_name
Michael Brown	Cocktail	The Cheers Bar

7 what is the average price per unit for each category of beverages, excluding the category 'Spirit'?

SELECT category,avg(price_per_unit) from beverages where category IN ('Beer','Whiskey','Cocktail','Wine') GROUP BY category;

i category	4.E
Beer	5.490000
Cocktail	8.990000
Whiskey	29.990000
Wine	12.990000

8. Which pubs have a rating higher than the average rating of all pubs?

SELECT pub_name, avg(rating) As Avg_rating
FROM pubs JOIN ratings ON pubs.pub_id = ratings.pub_id
WHERE rating > (SELECT AVG(rating) FROM ratings)
group by pub_name;

! pub_name	Avg_rating
La Cerveceria	4.9
The Cheers Bar	4.6
The Red Lion	4.75

9 What is the running total of sales amount for each pub, ordered by the transaction date?

WITH table 2 AS(

select (price_per_unit * quantity)As sales, pub_id,transaction_date from sales

JOIN beverages ON beverages.beverage_id = sales.beverage_id)

SELECT DISTINCT pub_id,transaction_date, sum(sales) Over

(partition by pub_id ORDER BY transaction_date ASC) as total_sales

from table2;

pub_id	transaction_date	total_sales
	2023-05-01	209.85
1:	2023-05-06	254.80
1	2023-05-11	532.66
2	2023-05-01	47.92
2	2023-05-03	101.86

10.For each country, what is the average price per unit of beverages in each category, and what is the overall averageprice per unit of beverages across all categories?

with Average AS

(SELECT avg(price_per_unit) AS average_price, category,country FROM beverages

JOIN sales ON beverages.beverage_id = sales.beverage_id

JOIN pubs ON pubs.pub_id = sales.pub_id group BY category,country)

select average_price, category,country,avg(average_price) over(partition BY country) AS

Overall_avg_price from Average ORDER BY Overall_avg_price;

Output

i average_price	category	country	Overall_avg_price
5.490000	Beer	United States	13.115000
8.990000	Cocktail	United States	13.115000
24.990000	Spirit	United States	13.115000
12.990000	Wine	United States	13.115000
5.990000	Beer	Spain	13.240000
8.990000	Cocktail	Spain	13.240000