Pub Pricing Analysis

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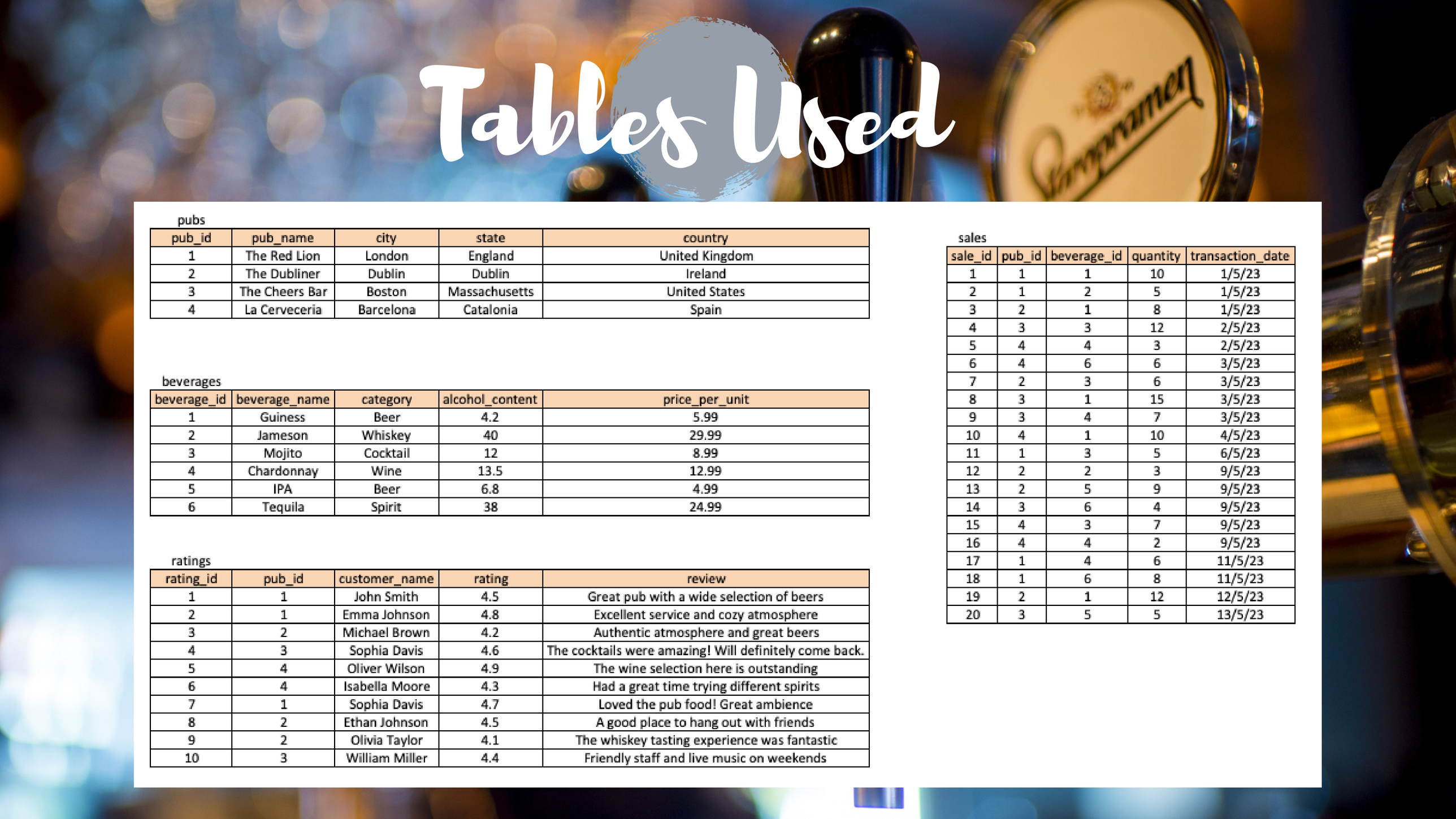

Tables Used

pubs

pub_id	pub_name	city	state	country
1	The Red Lion	London	England	United Kingdom
2	The Dubliner	Dublin	Dublin	Ireland
3	The Cheers Bar	Boston	Massachusetts	United States
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
9	2	Olivia Taylor	4.1	The whiskey tasting experience was fantastic
10	3	William Miller	4.4	Friendly staff and live music on weekends

sales

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

HOW MANY PUBS ARE LOCATED IN EACH COUNTRY?

```sql
--1. How many pubs are located in each country?
Select country, count(pub_id) as total_pubs from pubs group by country;
```

150 %

Results | Messages

	country	total_pubs
1	Ireland	1
2	Spain	1
3	United Kingdom	1
4	United States	1

WHAT IS THE TOTAL SALES AMOUNT FOR EACH PUB, INCLUDING THE BEVERAGE PRICE AND QUANTITY?

```sql
--2.What is the total sales amount for each pub,
 --including the beverage price and quantity sold?
 select s.pub_id,p.pub_name,sum(s.quantity * b.price_per_unit) as total_sales from
 sales s join beverages b
 on s.beverage_id=b.beverage_id join pubs p on p.pub_id=s.pub_id
 group by s.pub_id,p.pub_name;
```

Results | Messages

	pub_id	pub_name	total_sales
1	1	The Red Lion	532.66
2	2	The Dubliner	308.62
3	3	The Cheers Bar	413.57
4	4	La Cerveceria	337.72

WHICH PUB HAS THE HIGHEST AVERAGE RATING?

```sql
--3. Which pub has the highest average rating?
Select * from (
Select  *, rank() over(order by average_rating desc) as rnk from (
Select p.pub_id, p.pub_name,round(avg(r.rating),2) as average_rating from pubs p
join ratings r on p.pub_id=r.pub_id group by p.pub_id, p.pub_name) as a ) as b where rnk=1;
```

Results | Messages

	pub_id	pub_name	average_rating	rnk
1	1	The Red Lion	4.67	1

WHAT ARE THE TOP BEVERAGES BY SALES QUANTITY ACROSS ALL PUBS?

```sql
--4. What are the top 5 beverages by sales quantity across all pubs?
Select * from (
Select s.beverage_id,b.beverage_name,sum(s.quantity) as total_sales_quantity,
dense_rank() over(order by sum(s.quantity) desc) as rnk
from sales s join beverages b on s.beverage_id=b.beverage_id
group by s.beverage_id,b.beverage_name) as a where rnk between 1 and 5;
```

Results | Messages

	beverage_id	beverage_name	total_sales_quantity	rnk
1	1	Guinness	55	1
2	3	Mojito	30	2
3	4	Chardonnay	18	3
4	6	Tequila	18	3
5	5	IPA	14	4
6	2	Jameson	8	5

WHAT ARE THE TOP 5 BEVERAGES BY SALES ACROSS ALL PUBS?

```sql
--5. What are the top 5 beverages by sales across all pubs?
Select * from (
Select *, rank() over(order by total_sales desc) as rnk from (
Select b.beverage_name, sum(s.quantity*b.price_per_unit) as total_sales
from beverages b join sales s on b.beverage_id=s.beverage_id
group by b.beverage_name) as a ) as b where rnk between 1 and 5;
```

Results | Messages

	beverage_name	total_sales	rnk
1	Tequila	449.82	1
2	Guinness	329.45	2
3	Mojito	269.70	3
4	Jameson	239.92	4
5	Chardonnay	233.82	5

HOW MANY SALES TRANSACTIONS OCCURRED ON EACH DATE?

```sql
--6. How many sales transactions occurred on each date?
select distinct transaction_date,count(sale_id) as transactions from sales
group by transaction_date order by transactions desc;
```

Results | Messages

	transaction_date	transactions
1	2023-05-09	5
2	2023-05-03	4
3	2023-05-01	3
4	2023-05-02	2
5	2023-05-11	2
6	2023-05-12	1
7	2023-05-13	1
8	2023-05-04	1
9	2023-05-06	1

FIND THE NAMES OF SOMEONE THAT HAD COCKTAILS AND WHICH PUB THEN HAD IT IN?

```sql
--7. Find the names of someone that had cocktails and which pub they had it in.
Select r.pub_id,r.customer_name,p.pub_name,b.category from ratings r
join pubs p on p.pub_id=r.pub_id
join sales s on  p.pub_id=s.pub_id
join beverages b on b.beverage_id=s.beverage_id where b.category='cocktail';
```

Results | Messages

	pub_id	customer_name	pub_name	category
1	1	John Smith	The Red Lion	Cocktail
2	1	Emma Johnson	The Red Lion	Cocktail
3	2	Michael Brown	The Dubliner	Cocktail
4	3	Sophia Davis	The Cheers Bar	Cocktail
5	4	Oliver Wilson	La Cerveceria	Cocktail
6	4	Isabella Moore	La Cerveceria	Cocktail
7	1	Sophia Davis	The Red Lion	Cocktail
8	2	Ethan Johnson	The Dubliner	Cocktail
9	2	Olivia Taylor	The Dubliner	Cocktail
10	3	William Miller	The Cheers Bar	Cocktail

WHAT IS THE AVERAGE PRICE PER UNIT FOR EACH CATEGORY OF BEVERAGES, EXCLUDING THE CATEGORY ‘SPIRIT’?

```sql
--8. What is the average price per unit for each category of beverages,
--excluding the category 'Spirit'?
Select category, cast(round(avg(price_per_unit),2)as decimal (12,1)) as average_price_per_unit
from beverages where category <> 'Spirit' group by category;
```

Results | Messages

	category	average_price_per_unit
1	Beer	5.5
2	Cocktail	9.0
3	Whiskey	30.0
4	Wine	13.0

WHICH PUBS HAVE A RATING HIGHER THAN AVERAGE RATING OF ALL PUBS?

```sql
--9. Which pubs have a rating higher than the average rating of all pubs?
With temp_table as (
Select r.pub_id, cast(avg(r.rating) as numeric(12,1)) as avg_rating from ratings r
group by r.pub_id having cast(avg(r.rating) as numeric(12,1))>(
Select cast(avg(rating) as numeric(12,1)) from ratings))
Select t.*,p.pub_name from  temp_table t join pubs p on t.pub_id=p.pub_id;
```

150 %

Results | Messages

	pub_id	avg_rating	pub_name
1	1	4.7	The Red Lion
2	4	4.6	La Cervecería

WHAT IS THE RUNNING TOTAL OF SALES AMOUNT FOR EACH PUB, ORDERED BY REACTION DATE?

```sql
--10. What is the running total of sales amount for each pub, ordered by the transaction date?
Select * ,sum(total_sales) over(partition by pub_id order by transaction_date)
as running_total from (
Select s.pub_id,p.pub_name,s.transaction_date,
sum(s.quantity*b.price_per_unit) as total_sales from sales s join beverages b
on s.beverage_id=b.beverage_id join pubs p on p.pub_id=s.pub_id
group by s.pub_id,s.transaction_date,p.pub_name) as a;
```

150 %

Results | Messages

	pub_id	avg_rating	pub_name
1	1	4.7	The Red Lion
2	4	4.6	La Cervecería

FOR EACH COUNTRY, WHAT IS THE AVERAGE PRICE PER UNIT OF BEVERAGES IN EACH CATEGORY?

```sql
--11. For each country, what is the average price per unit of beverages in each category?
Select p.country,b.category, cast(avg(b.price_per_unit)as numeric(12,1))
as average_price_category_wise
from pubs p
join sales s on p.pub_id=s.pub_id
join beverages b on s.beverage_id=b.beverage_id
group by b.category,p.country;
```

Results | Messages

	country	category	average_price_category_wise
1	Ireland	Beer	5.7
2	Ireland	Cocktail	9.0
3	Ireland	Whiskey	30.0
4	Spain	Beer	6.0
5	Spain	Cocktail	9.0
6	Spain	Spirit	25.0
7	Spain	Wine	13.0
8	United Kingdom	Beer	6.0
9	United Kingdom	Cocktail	9.0
10	United Kingdom	Spirit	25.0
11	United Kingdom	Whiskey	30.0
12	United Kingdom	Wine	13.0
13	United States	Beer	5.5
14	United States	Cocktail	9.0
15	United States	Spirit	25.0
16	United States	Wine	13.0

FOR EACH COUNTRY, WHAT IS THE PERCENTAGE CONTRIBUTION OF EACH CATEGORY OF BEVERAGES TO THE TOTAL SALES AMOUNT AND WHAT IS THE PUB'S TOTAL SALES AMOUNT?

```sql
--12. For each pub, what is the percentage contribution of each category of beverages
--to the total sales amount, and what is the pub's overall sales amount?
Select pub_name, category,concat(cast((total_sales/overall_sales)*100 as numeric(12,1)),' %')
as percent_contribution,overall_sales from (
Select *, sum(total_sales) over(partition by pub_name) as overall_sales from (
Select p.pub_name,b.category,
cast(sum(s.quantity*b.price_per_unit) as numeric(12,1)) as total_sales
from sales s join beverages b on s.beverage_id=b.beverage_id
join pubs p on p.pub_id=s.pub_id
group by b.category,p.pub_name) as a) as b;
```

Results | Messages

	pub_name	category	percent_contribution	overall_sales
1	La Cerveceria	Beer	17.7 %	337.7
2	La Cerveceria	Cocktail	18.6 %	337.7
3	La Cerveceria	Spirit	44.4 %	337.7
4	La Cerveceria	Wine	19.2 %	337.7
5	The Cheers Bar	Beer	27.8 %	413.6
6	The Cheers Bar	Cocktail	26.1 %	413.6
7	The Cheers Bar	Spirit	24.2 %	413.6
8	The Cheers Bar	Wine	22.0 %	413.6
9	The Dubliner	Beer	53.4 %	308.6
10	The Dubliner	Cocktail	17.5 %	308.6
11	The Dubliner	Whiskey	29.2 %	308.6
12	The Red Lion	Beer	11.2 %	532.7
13	The Red Lion	Cocktail	8.4 %	532.7
14	The Red Lion	Spirit	37.5 %	532.7
15	The Red Lion	Whiskey	28.2 %	532.7
16	The Red Lion	Wine	14.6 %	532.7

WHICH BEVERAGE HAS HIGHEST AMOUNT OF ALCOHOL AND WHAT IS ITS CONTRIBUTION IN SALES?

```sql
--13.Which beverage has highest amount of alcohol and what is its contribution in sales?
Select beverage_id, category, beverage_name, alcohol_content,
concat(cast((max_alcohol_sales/total_sales)*100 as numeric(12,1)),' %') as contribution from(
Select *, sum(max_alcohol_sales) over() as total_sales from (
Select b.beverage_id,b.category,b.beverage_name,b.alcohol_content,
sum(s.quantity*b.price_per_unit) as max_alcohol_sales from beverages b
join sales s on b.beverage_id=s.beverage_id
group by b.beverage_id,b.beverage_name,b.alcohol_content,b.category) as a) as b
where alcohol_content = (select max(alcohol_content) from beverages);
```

Results | Messages

	beverage_id	category	beverage_name	alcohol_content	contribution
1	2	Whiskey	Jameson	40	15.1 %

WHICH COUNTRY MADE THE MAXIMUM SALES?

```sql
--14.Which country made the maximum sales?
Select * from (
Select *, rank() over(order by total_sales desc) as rnk from (
Select p.country, sum(s.quantity*b.price_per_unit) as total_sales
from pubs p join sales s on p.pub_id=s.pub_id
join beverages b on b.beverage_id=s.beverage_id
group by p.country)as a) as b where rnk=1;
```

150 %

Results | Messages

	country	total_sales	rnk
1	United Kingdom	532.66	1


Thank you
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