

Pub pricing analysis Using SQL





Challenge

---> You are a Pricing Analyst working for a pub chain called 'Pubs "R" Us'

You have been tasked with analyzing the drinks prices and sales to gain a greater insight into how the pubs in your chain are performing.



Tables

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

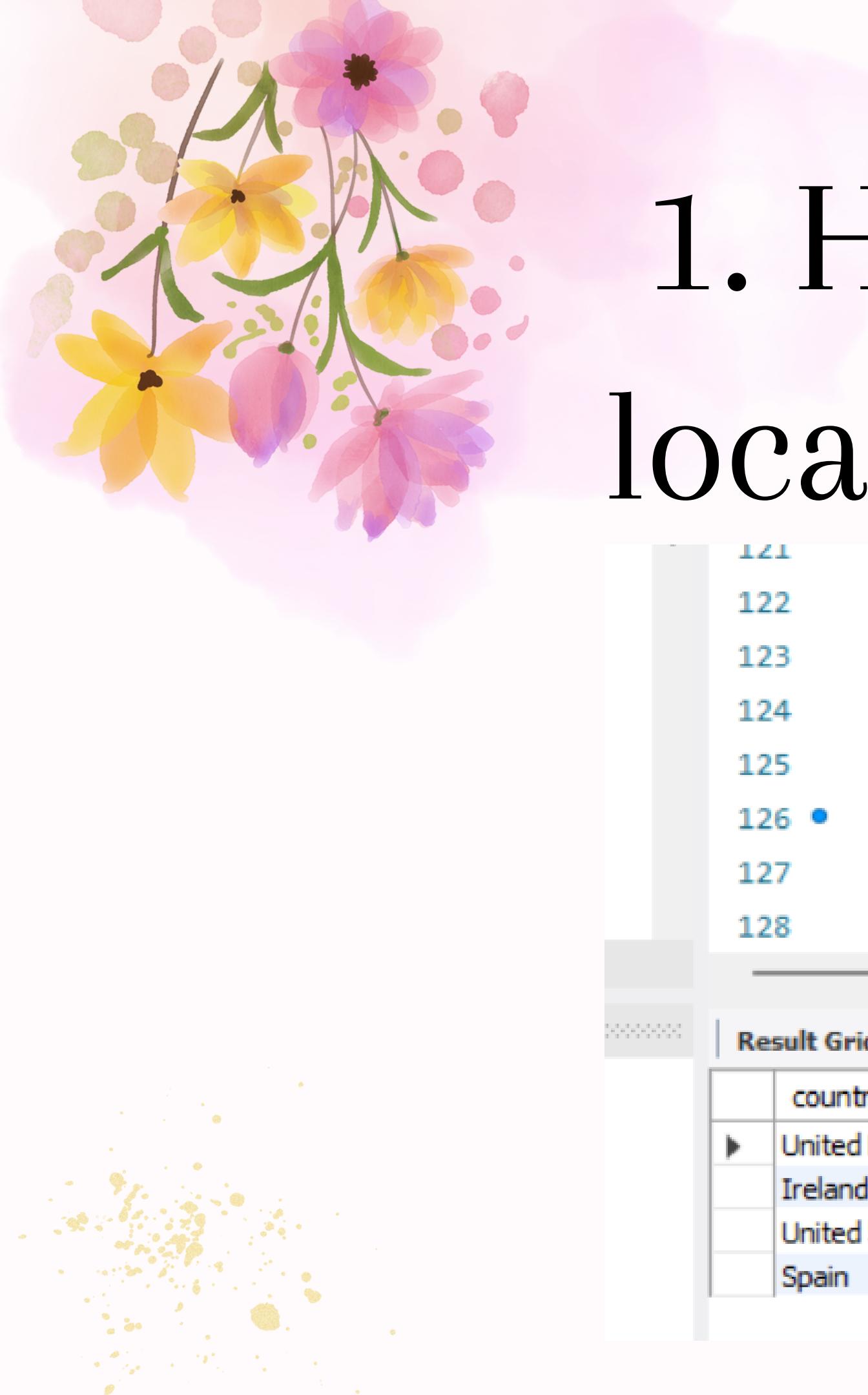
beverage_id	beverage_name	category	alcohol_content	price_per_unit
1	Guinness	Beer	4.2	5.99
2	Jameson	Whiskey	40	29.99
3	Mojito	Cocktail	12	8.99
4	Chardonnay	Wine	13.5	12.99
5	IPA	Beer	6.8	4.99
6	Tequila	Spirit	38	24.99

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



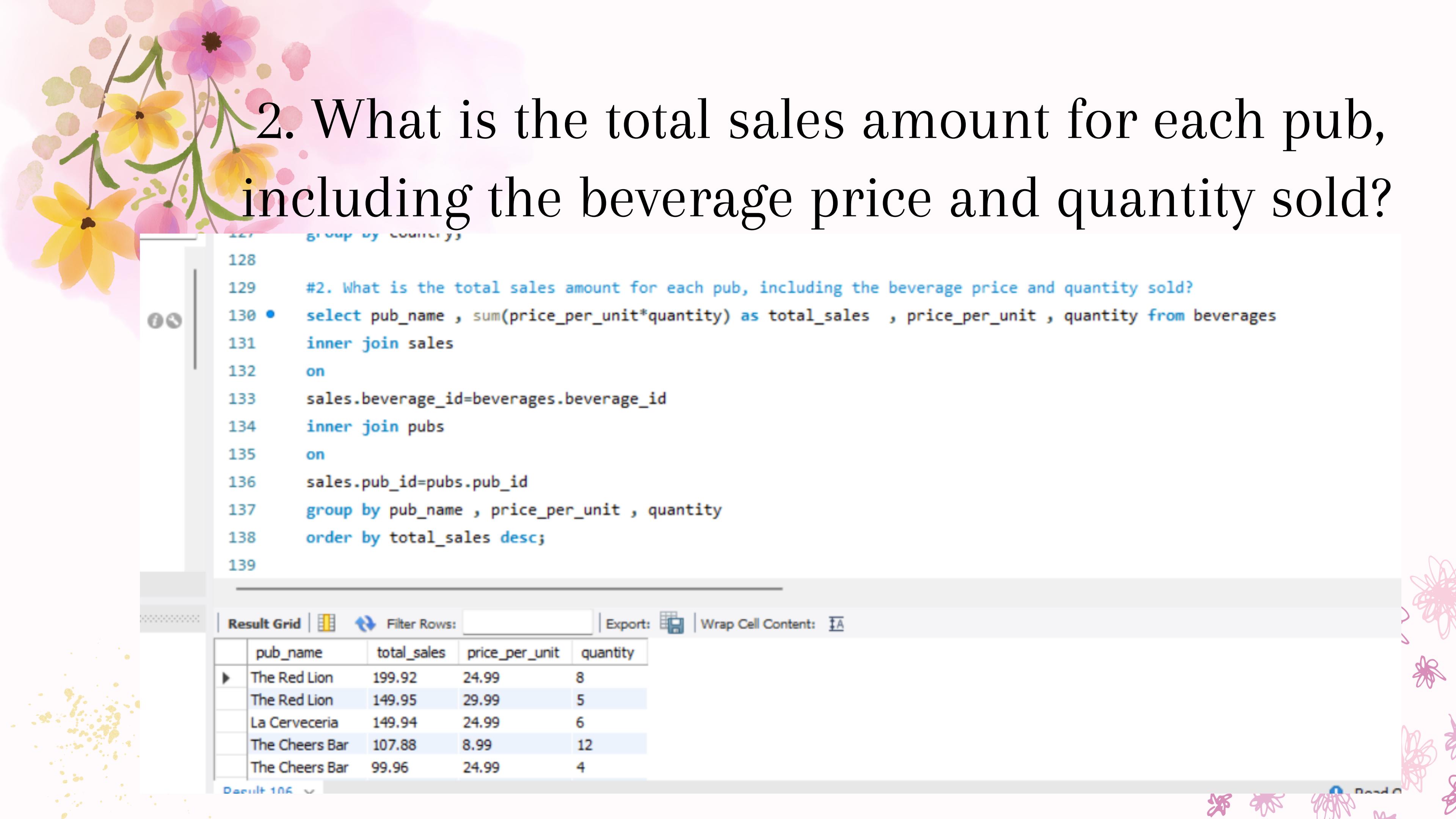
1. How many pubs are located in each country??



```
121  
122  
123  
124 #Questions  
125 #1. How many pubs are located in each country??  
126 • select country , count(pub_id) from pubs  
127 group by country;  
128
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	country	count(pub_id)
▶	United Kingdom	1
	Ireland	1
	United States	1
	Spain	1



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

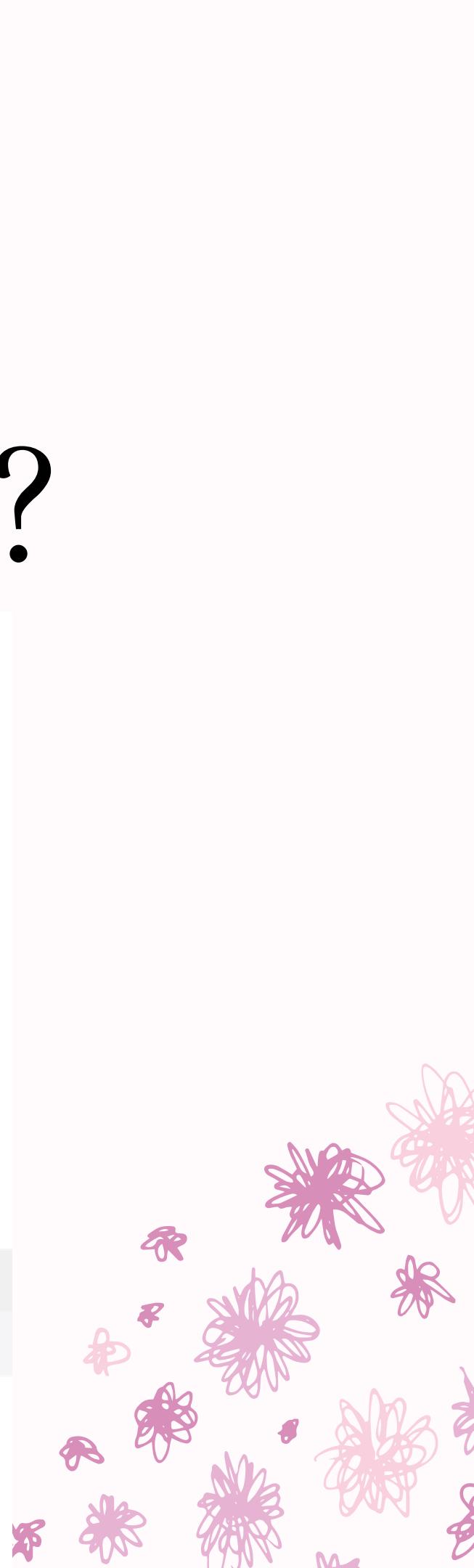
```
127      group by country  
128  
129      #2. What is the total sales amount for each pub, including the beverage price and quantity sold?  
130 •  select pub_name , sum(price_per_unit*quantity) as total_sales , price_per_unit , quantity from beverages  
131      inner join sales  
132      on  
133      sales.beverage_id=beverages.beverage_id  
134      inner join pubs  
135      on  
136      sales.pub_id=pubs.pub_id  
137      group by pub_name , price_per_unit , quantity  
138      order by total_sales desc;  
139
```

Result Grid | Filter Rows: Export: Wrap Cell Content:

	pub_name	total_sales	price_per_unit	quantity
▶	The Red Lion	199.92	24.99	8
	The Red Lion	149.95	29.99	5
	La Cerveceria	149.94	24.99	6
	The Cheers Bar	107.88	8.99	12
	The Cheers Bar	99.96	24.99	4



3. Which pub has the highest average rating?



```
140
141
142      #3. Which pub has the highest average rating?
143 •   select pub_name , avg(rating) as average_rating from pubs
144     inner join ratings
145     on
146     pubs.pub_id=ratings.pub_id
147     group by pub_name
148     order by average_rating desc
149     limit 1;
150
```

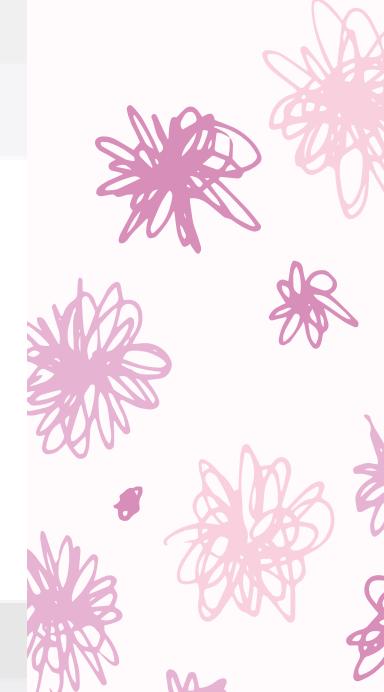
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

	pub_name	average_rating
▶	The Red Lion	4.6666666666666667



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

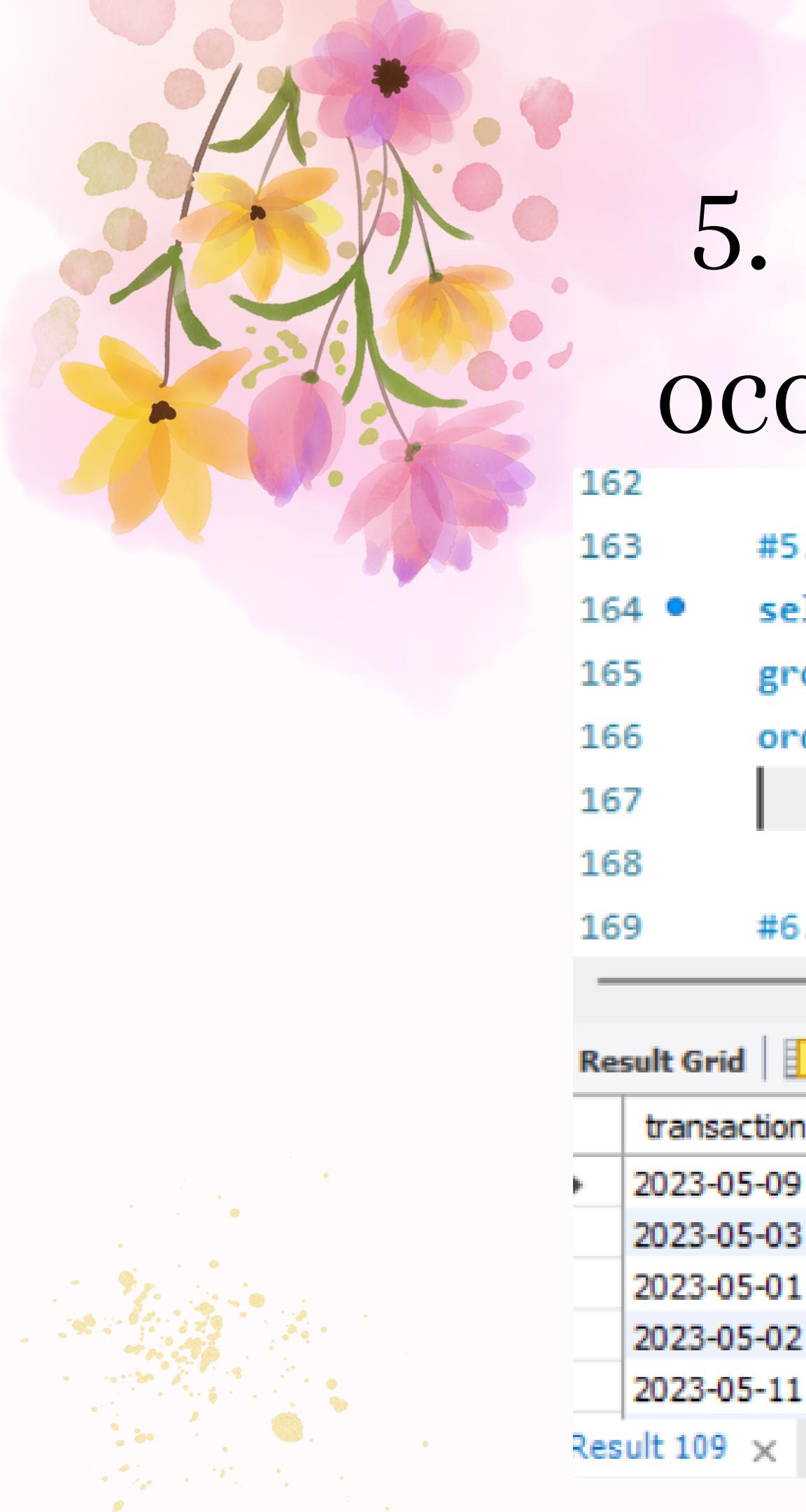
```
152  
153 #4. What are the top 5 beverages by sales quantity across all pubs?  
154 • select beverage_name , sum(quantity) as total_sales_quantity from sales  
155 inner join beverages  
156 on  
157 sales.beverage_id=beverages.beverage_id  
158 group by beverage_name  
159 order by total_sales_quantity desc  
160 limit 5;
```



Result Grid | Filter Rows: Export: Wrap Cell Content: Fetch rows:

	beverage_name	total_sales_quantity
▶	Guinness	55
	Mojito	30
	Chardonnay	18
	Tequila	18
	IPA	14

Result 108 ×



5. How many sales transactions occurred on each date?

```
162
163      #5. How many sales transactions occurred on each date?
164 •  select transaction_date , count(sale_id) from sales
165      group by transaction_date
166      order by count(sale_id) desc;
167
168
169      #6. Find the name of someone that had cocktails and which pub th
```

Result Grid | Filter Rows: | Export: Wrap Cell Content:

transaction_date	count(sale_id)
2023-05-09	5
2023-05-03	4
2023-05-01	3
2023-05-02	2
2023-05-11	2

Result 109 ×



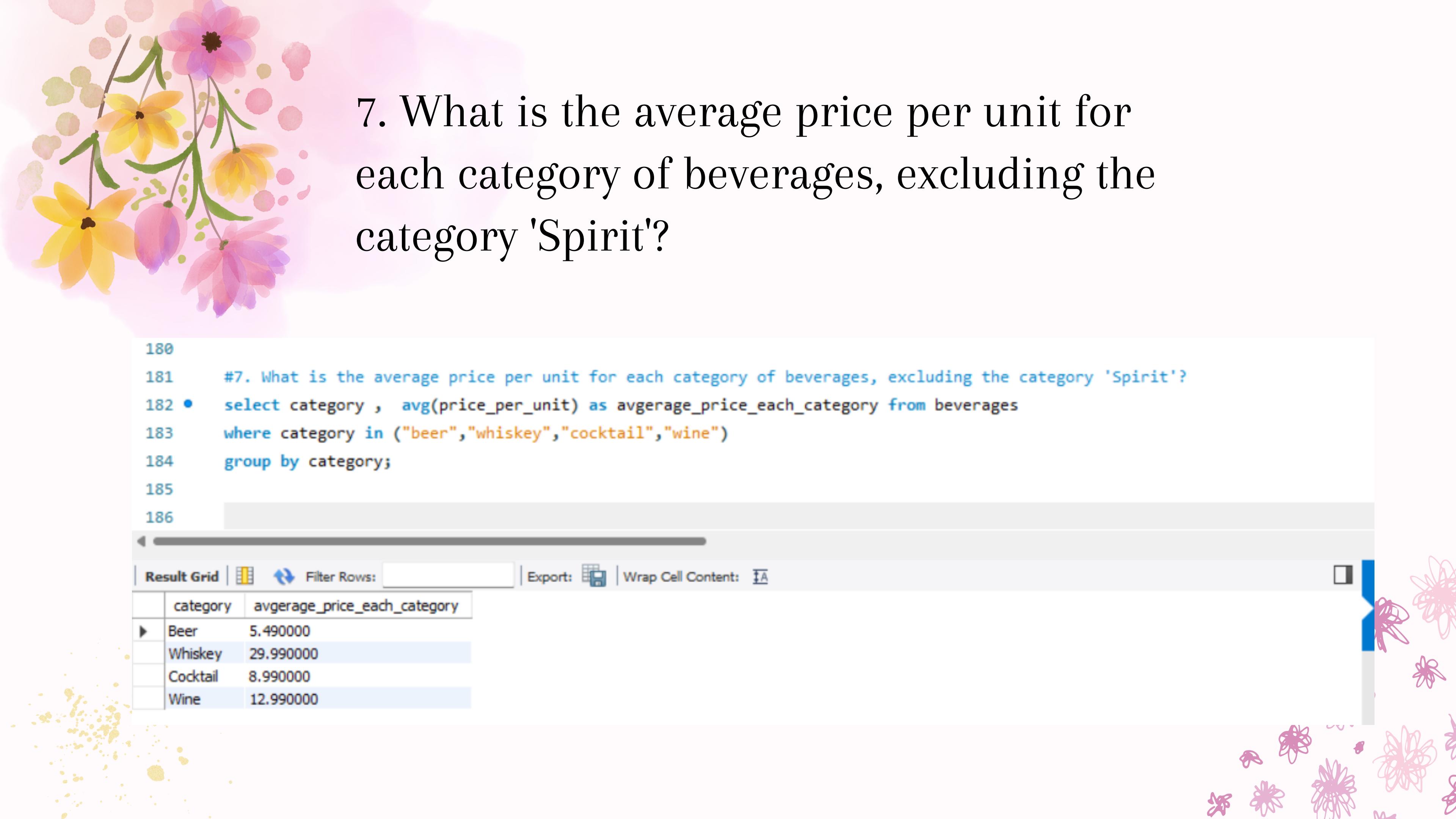
6. Find the name of someone that had cocktails and which pub they had it in.

```
168
169  #6. Find the name of someone that had cocktails and which pub they had it in.
170 • select category , pub_name from sales
171   inner join beverages
172   on
173     sales.beverage_id=beverages.beverage_id
174   inner join pubs
175   on
176     pubs.pub_id=sales.pub_id
177   where category="cocktail"
178   group by pub_name , category ;
179
180
```

Result Grid | Filter Rows: _____ | Export: | Wrap Cell Content: |

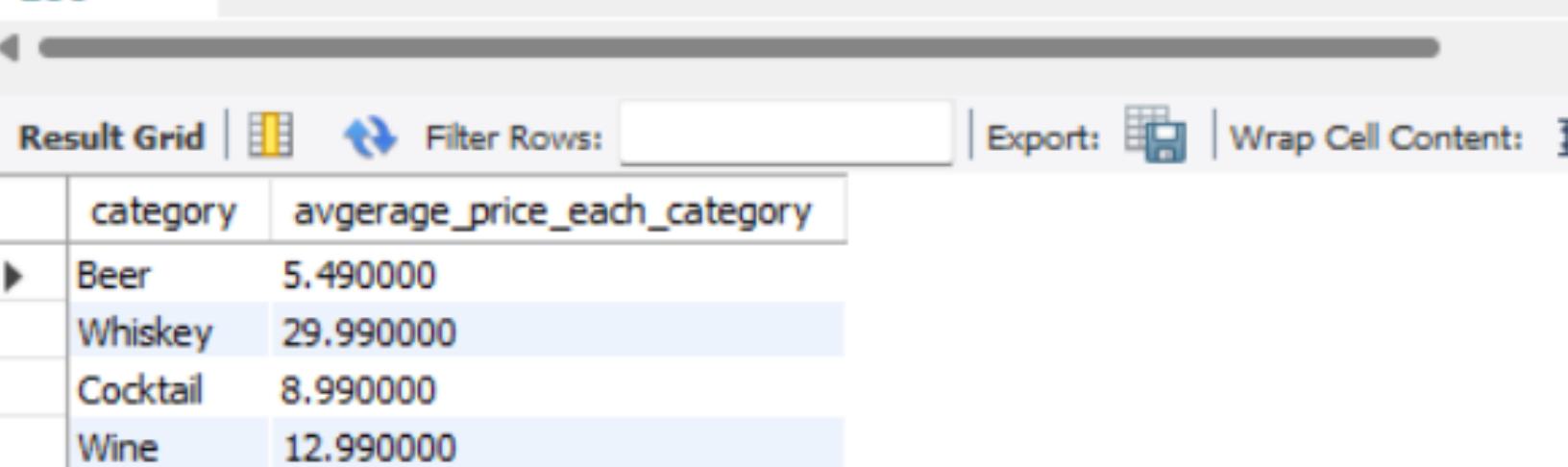
	category	pub_name
▶	Cocktail	The Cheers Bar
	Cocktail	The Dubliner
	Cocktail	The Red Lion
	Cocktail	La Cerveceria

Result 110 ×



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

```
180  
181      #7. What is the average price per unit for each category of beverages, excluding the category 'Spirit'?  
182 • select category , avg(price_per_unit) as avgerage_price_each_category from beverages  
183      where category in ("beer","whiskey","cocktail","wine")  
184      group by category;  
185  
186
```



The screenshot shows a database query results grid. The grid has two columns: 'category' and 'avgerage_price_each_category'. The data rows are:

category	avgerage_price_each_category
Beer	5.490000
Whiskey	29.990000
Cocktail	8.990000
Wine	12.990000



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

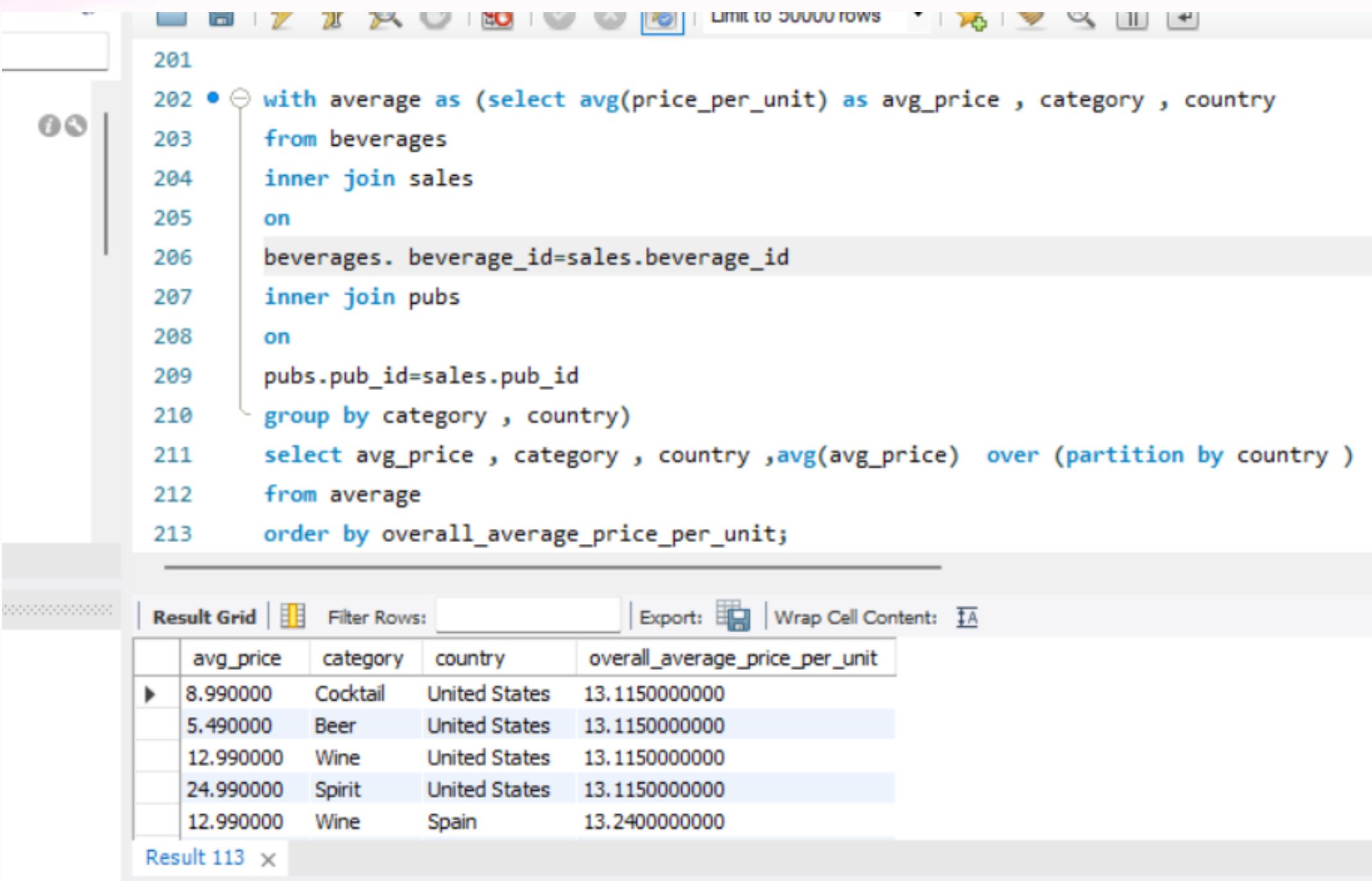
```
186
187      #8. Which pubs have a rating higher than the average rating of all pubs?
188 •  select pub_name ,  avg(rating) as average_rating from pubs
189      inner join ratings
190      on
191      pubs.pub_id=ratings.pub_id
192      group by pub_name
193      having avg(rating)>(select avg(rating) from ratings);
194
195
```

Result Grid | Filter Rows: _____ | Export: Wrap Cell Content:

	pub_name	average_rating
▶	The Red Lion	4.6666666666666667
	La Cerveceria	4.6000001430511475



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



The screenshot shows a database query editor with the following SQL code:

```
201  
202 • with average as (select avg(price_per_unit) as avg_price , category , country  
203   from beverages  
204   inner join sales  
205   on  
206   beverages. beverage_id=sales.beverage_id  
207   inner join pubs  
208   on  
209   pubs.pub_id=sales.pub_id  
210   group by category , country)  
211   select avg_price , category , country ,avg(avg_price) over (partition by country )  
212   from average  
213   order by overall_average_price_per_unit;
```

The Result Grid displays the following data:

	avg_price	category	country	overall_average_price_per_unit
▶	8.990000	Cocktail	United States	13.1150000000
	5.490000	Beer	United States	13.1150000000
	12.990000	Wine	United States	13.1150000000
	24.990000	Spirit	United States	13.1150000000
	12.990000	Wine	Spain	13.2400000000

Result 113 ×

Thank You

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