

BUSINESS INTELLIGENCE PROJECT IN SQL

The SQL code for the project is available in the previous page or at <https://github.com/Bidokwu/Test-repo/blob/main/International%20Breweries.txt>

The PostgreSQL server was deployed for this project, we start by creating a server for our database and further create schema and table then finally import the dataset into the table.

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure, including the 'brew' schema and the 'international_breweries' table. The central pane shows the SQL query editor with the following code:

```
1 CREATE SCHEMA brew;
2 CREATE TABLE brew.international_breweries (SALES_ID INT, SALES_REP VARCHAR(255), EMAILS VARCHAR(255), BRANDS VARCHAR(255), PLANT_COST INT);
3 ;
4 SELECT * FROM brew.international_breweries;
```

The bottom pane displays the 'Data Output' for the query, showing a table with 13 columns: sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, cost, profit, countries, region, months, and a status column. The data is as follows:

sales_id	sales_rep	emails	brands	plant_cost	unit_price	quantity	cost	profit	countries	region	months		
1	10101	Jardine	jard@gmail.com	trophy	150	200	725	145000	36250	Ghana	Southwest	January	
2	10102	Gil	gilhal@gmail.com	budweiser	250	500	815	407500	203750	Nigeria	west	February	
3	10103	Servino	servi2000@gmail.com	castle line	180	450	937	421650	252900	Togo	southsouth	March	
4	10104	Jones	jone.ai@yahoo.com	eagle lager	170	250	765	191250	61200	Benin	northwest	April	
5	10105	Andrews	andy@gmail.com	hero	150	200	835	167200	41800	Senegal	northwest	May	
6	10106	Jardine	jard@gmail.com	beta malt	80	150	798	119700	53850	Ghana	northcentral	June	
7	10107	Thompson	thomp@gmail.com	grand malt	150	150	954	143100					
8	10108	Jones	jone.ai@yahoo.com	trophy	150	200	812	162800					
9	10109	Morgan	morgany@gmail.com	budweiser	250	500	700	350000					
10	10110	Howard	howard_freeman@yahoo.com	castle line	180	450	745	335250					
11	10111	Pawert	pawerty@gmail.com	eagle lager	170	250	861	215250					
12	10112	Jones	jone.ai@yahoo.com	hero	150	200	902	180400					
13	10113	Smith	smithman@yahoo.com	beta malt	80	150	731	109650					

1. Within the space of the last three years, what was the profit worth of the breweries, inclusive of the anglophone and the francophone territories?

Answer: 105587420

The screenshot shows the pgAdmin 4 interface with the following SQL query in the editor:

```
1 CREATE SCHEMA brew;
2 CREATE TABLE brew.international_breweries (SALES_ID INT, SALES_REP VARCHAR(255), EMAILS VARCHAR(255), BRANDS VARCHAR(255), PLANT_COST INT);
3 ;
4 SELECT * FROM brew.international_breweries;
5
6 --ANGLOPHONE (Nigeria,Ghana) FRANCOPHONE (Benin,Senegal,Togo)
7
8 --1. Within the space of the last three years, what was the profit worth of the breweries,inclusive of the anglophone and the francophone
9
10 SELECT SUM(profit)
11 FROM brew.international_breweries;
```

The 'Data Output' pane shows the result of the query:

sum
105587420

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2. Compare the total profit between these two territories in order for the territory manager, Mr. Stone made a strategic decision that will aid profit maximization in 2020.

Answer: Anglophone = 42389260; Francophone = 63198160

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'brew' schema and the 'international_breweries' table. The main pane shows a SQL query in the 'Query Editor' that calculates the total profit for the Anglophone territory (Nigeria and Ghana). The query is as follows:

```
1 CREATE SCHEMA brew
2 CREATE TABLE brew.international_breweries (SALES_ID INT, SALES_REP VARCHAR(255), EMAILS VARCHAR(255), BRANDS VARCHAR(255), PLANT_COST INT)
3 ;
4 SELECT * FROM brew.international_breweries
5
6 --ANGLOPHONE (Nigeria,Ghana) FRANCOPHONE (Benin,Senegal,Togo)
7
8 --1. Within the space of the last three years, what was the profit worth of the breweries,inclusive of the anglophone and the francophone
9
10 SELECT SUM(profit)
11 FROM brew.international_breweries;
12
13 --2. Compare the total profit between these two territories in order for the territory manager,Mr. Stone made a strategic decision that w
14
15 SELECT SUM(profit) AS Anglophone
16 FROM brew.international_breweries
17 WHERE countries IN ('Nigeria', 'Ghana');
18
19
```

The 'Data Output' pane shows the result of the query:

anglophone
42389260

A red checkmark is drawn over the result value 42389260.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'brew' schema and the 'international_breweries' table. The main pane shows a SQL query in the 'Query Editor' that calculates the total profit for the Francophone territory (Benin, Senegal, and Togo). The query is as follows:

```
4 SELECT * FROM brew.international_breweries
5
6 --ANGLOPHONE (Nigeria,Ghana) FRANCOPHONE (Benin,Senegal,Togo)
7
8 --1. Within the space of the last three years, what was the profit worth of the breweries,inclusive of the anglophone and the francophone
9
10 SELECT SUM(profit)
11 FROM brew.international_breweries;
12
13 --2. Compare the total profit between these two territories in order for the territory manager,Mr. Stone made a strategic decision that
14
15 SELECT SUM(profit) AS Anglophone
16 FROM brew.international_breweries
17 WHERE countries IN ('Nigeria', 'Ghana');
18
19 SELECT SUM(profit) AS Francophone
20 FROM brew.international_breweries
21 WHERE countries IN ('Benin','Senegal','Togo');
22
23
```

The 'Data Output' pane shows the result of the query:

francophone
63198160

A red checkmark is drawn over the result value 63198160.

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3. Country that generated the highest profit in 2019

Answer: Ghana

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'international_breweries' database. The main window shows a SQL query in the Query Editor:

```
--2. Compare the total profit between these two territories in order for the territory manager, Mr. Stone made a strategic decision that
SELECT SUM(profit) AS Anglophone
FROM brew.international_breweries
WHERE countries IN ('Nigeria', 'Ghana');

SELECT SUM(profit) AS Francophone
FROM brew.international_breweries
WHERE countries IN ('Benin', 'Senegal', 'Togo');

--3. Country that generated the highest profit in 2019
SELECT SUM(profit) AS Highest_Profit_2019, countries, years
FROM brew.international_breweries
WHERE years = 2019
GROUP BY countries, years
ORDER BY Highest_Profit_2019 DESC;
```

The Data Output pane shows the results of the query:

highest_profit_2019	countries	years
7144070	Ghana	2019
5687560	Senegal	2019
6109960	Togo	2019
5273340	Benin	2019
4805320	Nigeria	2019

4. Help him find the year with the highest profit.

Answer: 38503320

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'international_breweries' database. The main window shows a SQL query in the Query Editor:

```
--3. Country that generated the highest profit in 2019
SELECT SUM(profit) AS Highest_Profit_2019, countries, years
FROM brew.international_breweries
WHERE years = 2019
GROUP BY countries, years
ORDER BY Highest_Profit_2019 DESC;

--4. Help him find the year with the highest profit.
SELECT SUM(profit) AS Highest_Profit, years AS Year_Highest_Profit
FROM brew.international_breweries
GROUP BY years
ORDER BY Highest_Profit DESC
LIMIT 1;
```

The Data Output pane shows the results of the query:

highest_profit	year_highest_profit
38503320	2017

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5. Which month in the three years was the least profit generated?

Answer: **30020250**

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'international_breweries' table. The main window shows a SQL query in the Query Editor:

```
27 WHERE years = 2019
28 GROUP BY countries, years
29 ORDER BY Highest_Profit_2019 DESC;
30
31 --4. Help him find the year with the highest profit.
32
33 SELECT SUM(profit) AS Highest_Profit, years AS Year_Highest_Profit
34 FROM brew.international_breweries
35 GROUP BY years
36 ORDER BY Highest_Profit DESC
37 LIMIT 1;
38
39 --5. Which month in the three years was the least profit generated?
40
41 SELECT SUM(profit) AS Highest_Profit, years AS Year_Highest_Profit
42 FROM brew.international_breweries
43 GROUP BY years
44 ORDER BY Highest_Profit
45 LIMIT 1;
```

The Data Output tab shows the result of the query:

highest_profit	year_highest_profit
30020250	2019

A red checkmark is drawn over the result row.

6. What was the minimum profit in the month of December 2018?

Answer: **38150**

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including the 'international_breweries' table. The main window shows a SQL query in the Query Editor:

```
35 GROUP BY years
36 ORDER BY Highest_Profit DESC
37 LIMIT 1;
38
39 --5. Which month in the three years was the least profit generated?
40
41 SELECT SUM(profit) AS Highest_Profit, years AS Year_Highest_Profit
42 FROM brew.international_breweries
43 GROUP BY years
44 ORDER BY Highest_Profit
45 LIMIT 1;
46
47 --6. What was the minimum profit in the month of December 2018?
48
49 SELECT MIN (profit), months, years
50 FROM brew.international_breweries
51 WHERE months = 'December'
52 AND years = 2018
53 GROUP BY months, years;
```

The Data Output tab shows the result of the query:

min	months	years
38150	December	2018

A red checkmark is drawn over the result row.

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