

CAPSTONE PROJECT USING INTERNATIONAL BREWERIES DATA.

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IMPORTING OF DATA

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane shows the 'public' schema with a table named 'b_table'. The main pane displays the SQL query used to create the table and its data.

```
1 create table b_table(sales_id integer not null, sales_rep varchar(50), emails varchar(50), brands varchar(50),
2 plant_cost integer, unit_price integer, quantity integer, product_cost integer, profit integer);
3
4
5 select* from b_table
```

The 'Data output' pane shows the following data:

	sales_id	sales_rep	emails	brands	plant_cost	unit_price	quantity	product_cost	profit
1	10101	Jardine	jard@gmail.com	trophy	150	200	725	145000	3
2	10102	Gill	gillhell@uk.com	budweiser	250	500	815	407500	20
3	10103	Sorvino	sorvi2000@gmail.com	castle lite	180	450	937	421650	25
4	10104	Jones	jone.ai@yahoo.com	eagle lager	170	250	765	191250	6
5	10105	Andrews	andy@gmail.com	hero	150	200	836	167200	4
6	10106	Jardine	jard@gmail.com	beta malt	80			119700	5

Total rows: 1000 of 1047 Query complete 00:00:00.271

SECTION 1- PROFIT ANALYSIS

1) Anglophone countries – Nigeria, Ghana

Francophone- Togo, Senegal, Benin

The screenshot shows the pgAdmin 4 interface. The main pane displays the SQL query to calculate the total profit.

```
1 select sum(profit) total_profit
2 from b_table
3
```

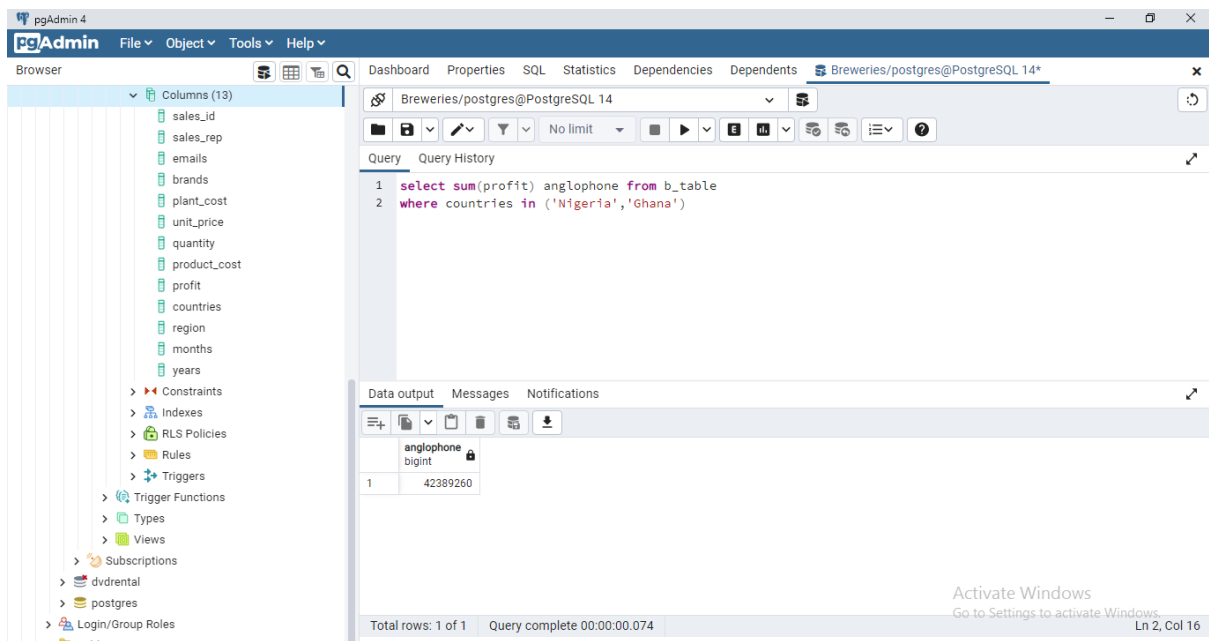
The 'Data output' pane shows the following result:

	total_profit
1	105587420

Total rows: 1 of 1 Query complete 00:00:00.088

Total Profit of the breweries inclusive of Anglophone and francophone territories.

2) Comparing Anglophone and francophone territories profit.



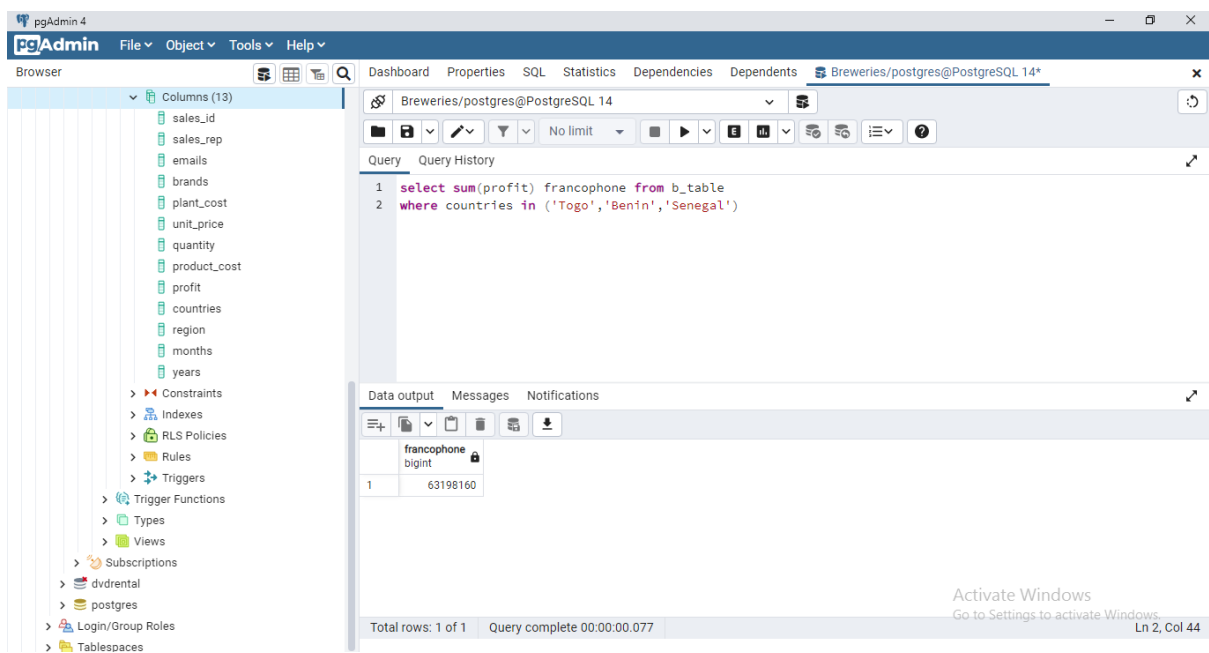
The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including columns (sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, product_cost, profit, countries, region, months, years), constraints, indexes, RLS Policies, Rules, Triggers, Trigger Functions, Types, Views, Subscriptions, dvdrental, postgres, and Login/Group Roles. The main query editor contains the following SQL query:

```
1 select sum(profit) anglophone from b_table
2 where countries in ('Nigeria','Ghana')
```

The query results are displayed in the Data output tab, showing a single row with the profit value for anglophone territories:

anglophone
42389260

The status bar at the bottom indicates "Total rows: 1 of 1" and "Query complete 00:00:00.074".



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including columns (sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, product_cost, profit, countries, region, months, years), constraints, indexes, RLS Policies, Rules, Triggers, Trigger Functions, Types, Views, Subscriptions, dvdrental, postgres, Login/Group Roles, and Tablespaces. The main query editor contains the following SQL query:

```
1 select sum(profit) francophone from b_table
2 where countries in ('Togo','Benin','Senegal')
```

The query results are displayed in the Data output tab, showing a single row with the profit value for francophone territories:

francophone
63198160

The status bar at the bottom indicates "Total rows: 1 of 1" and "Query complete 00:00:00.077".

3.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays a tree view of database objects, including columns (sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, product_cost, profit, countries, region, months, years), constraints, indexes, RLS policies, rules, triggers, trigger functions, types, views, subscriptions, dvtrental, postgres, login/group roles, and tablespaces. The main query editor window is titled 'Breweries/postgres@PostgreSQL 14*' and contains the following SQL query:

```
1 select countries, sum(profit) from b_table
2 where years='2019'
3 group by countries
4 order by sum(profit) desc
5 limit 1
6
```

The 'Data output' tab is active, showing a single row of results:

countries	sum
character varying (50)	bigint
1 Ghana	7144070

The status bar at the bottom indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.138'. A watermark 'Activate Windows' is visible in the bottom right corner.

Ghana has the highest profit in 2019.

4.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays a tree view of database objects, including columns (sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, product_cost, profit, countries, region, months, years), constraints, indexes, RLS policies, rules, triggers, trigger functions, types, views, subscriptions, dvtrental, postgres, login/group roles, and tablespaces. The main query editor window is titled 'Breweries/postgres@PostgreSQL 14*' and contains the following SQL query:

```
1 select years, sum(profit) from b_table
2 group by years
3 order by sum(profit) desc
4 limit 1
5
```

The 'Data output' tab is active, showing a single row of results:

years	sum
integer	bigint
1 2017	38503320

The status bar at the bottom indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.138'. A watermark 'Activate Windows' is visible in the bottom right corner.

2017 has the highest profit.

5.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including tables like sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, product_cost, profit, countries, region, months, and years. The main pane shows a SQL query:

```
1 select years, months, sum(profit) from b_table
2 group by years, months
3 order by sum(profit)
4 limit 1
5
```

The 'Data output' tab shows the results of the query:

	years integer	months character varying (50)	sum bigint
1	2019	February	1366880

At the bottom, it indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.182'.

February 2019 has least profit

6.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure. The main pane shows a SQL query:

```
1 select * from b_table
2 where (years, months) = ('2018', 'December')
3 order by profit
4 limit 1
5
```

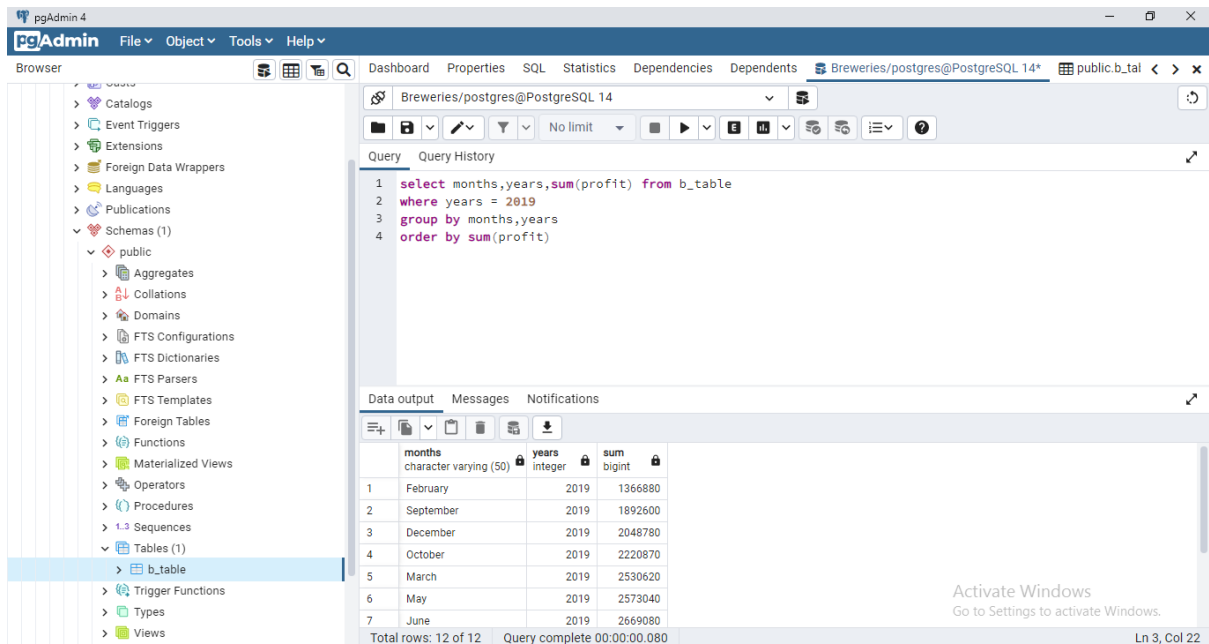
The 'Data output' tab shows the results of the query:

	int_cost integer	unit_price integer	quantity integer	product_cost integer	profit integer	countries character varying (50)	region character varying (50)	months character varying (50)	years integer
1	150	200	763	152600	38150	Senegal	northcentral	December	2018

At the bottom, it indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.093'.

December 2018 has minimum profit of 38150

7.



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'public.b_table' selected. The main pane shows a SQL query:

```
1 select months,years,sum(profit) from b_table
2 where years = 2019
3 group by months,years
4 order by sum(profit)
```

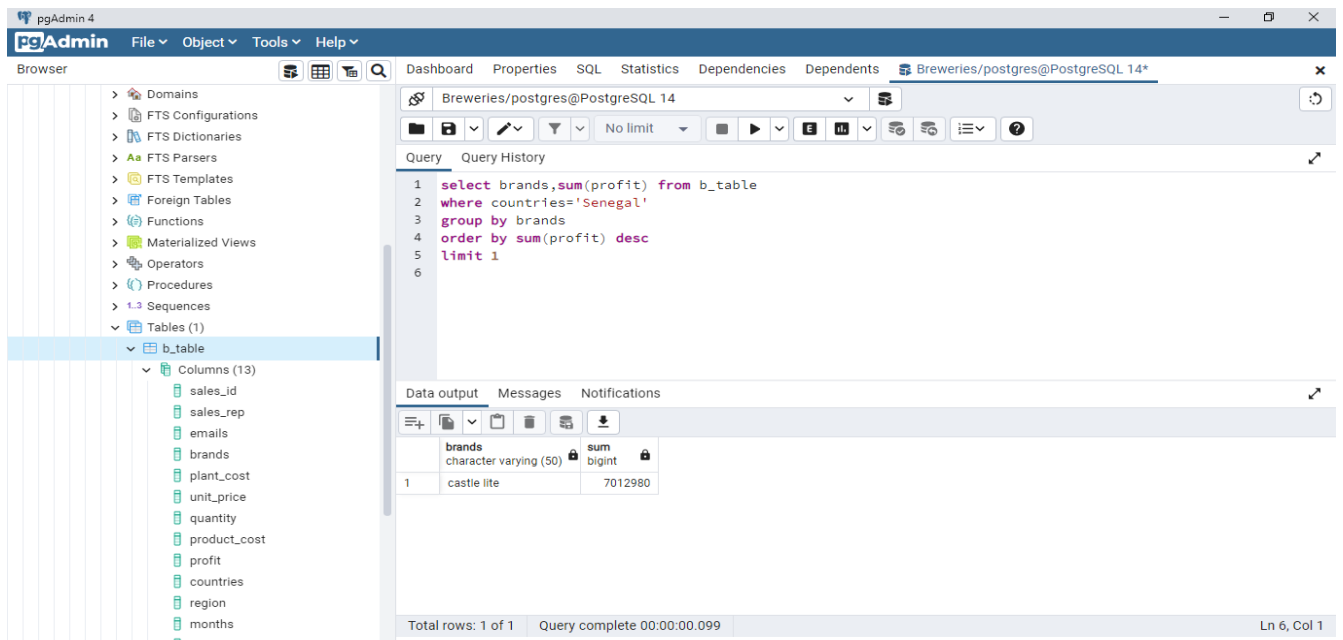
The 'Data output' tab shows the results of the query:

	months character varying (50)	years integer	sum bigint
1	February	2019	1366880
2	September	2019	1892600
3	December	2019	2048780
4	October	2019	2220870
5	March	2019	2530620
6	May	2019	2573040
7	June	2019	2669080

Total rows: 12 of 12 Query complete 00:00:00.080 Ln 3, Col 22

Profit from January-December in year 2019.

8.



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'public.b_table' selected. The main pane shows a SQL query:

```
1 select brands,sum(profit) from b_table
2 where countries='Senegal'
3 group by brands
4 order by sum(profit) desc
5 limit 1
6
```

The 'Data output' tab shows the results of the query:

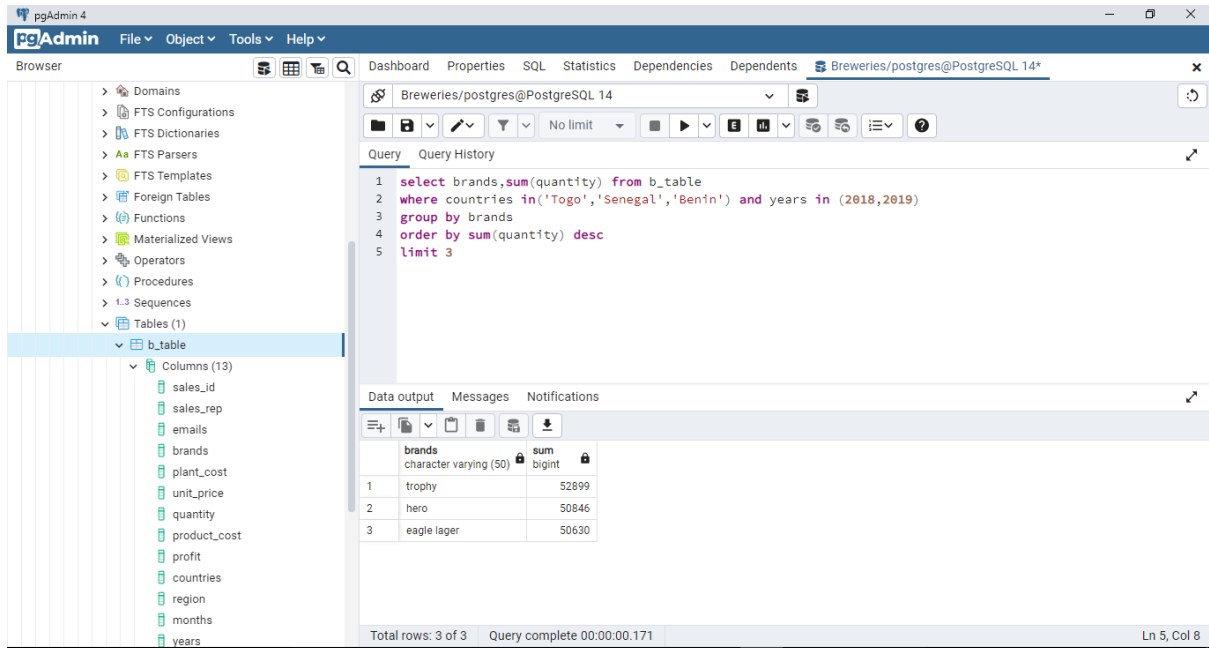
	brands character varying (50)	sum bigint
1	castle lite	7012980

Total rows: 1 of 1 Query complete 00:00:00.099 Ln 6, Col 1

Castle lite is the brand with the highest profit.

SECTION 2- BRAND ANALYSIS

1.



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select brands,sum(quantity) from b_table
2 where countries in('Togo','Senegal','Benin') and years in (2018,2019)
3 group by brands
4 order by sum(quantity) desc
5 limit 3
```

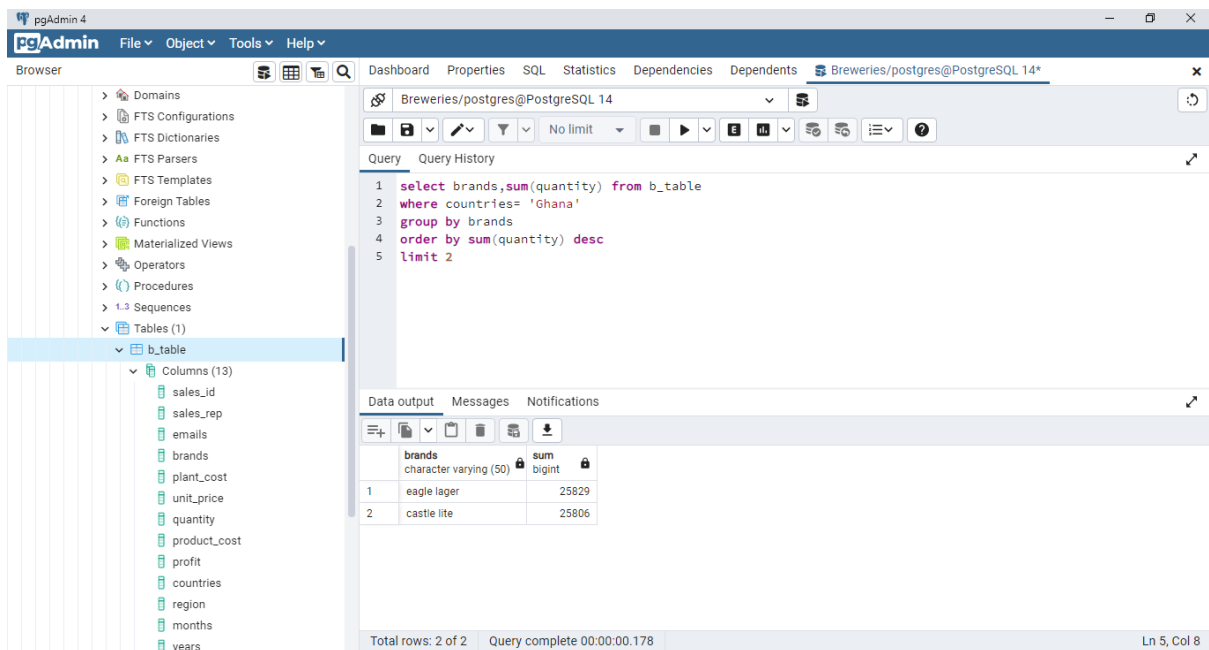
The 'Data output' tab shows the results of the query:

	brands	sum
	character varying (50)	bigint
1	trophy	52899
2	hero	50846
3	eagle lager	50630

Total rows: 3 of 3 Query complete 00:00:00.171 Ln 5, Col 8

Trophy, hero, eagle lager are the top 3 brands consumed in francophone countries.

2.



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select brands,sum(quantity) from b_table
2 where countries= 'Ghana'
3 group by brands
4 order by sum(quantity) desc
5 limit 2
```

The 'Data output' tab shows the results of the query:

	brands	sum
	character varying (50)	bigint
1	eagle lager	25829
2	castle lite	25806

Total rows: 2 of 2 Query complete 00:00:00.178 Ln 5, Col 8

Top 2 brands consumed in Ghana

3.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select brands, sum(quantity),sum(profit) from b_table
2 where countries ='Nigeria' and brands in ('trophy','castle lite','budweiser','eagle lager','hero')
3 group by brands
4 order by sum(quantity)
5
6
```

The 'Data output' tab shows the results of the query:

	brands character varying (50)	sum bigint	sum bigint
1	castle lite	25681	6933870
2	trophy	25743	1287150
3	hero	25811	1290550
4	eagle lager	25872	2069760
5	budweiser	26153	6538250

Total rows: 5 of 5 Query complete 00:00:00.094 Ln 2, Col 97

Details of beer consumed in oil rich country in West Africa which is Nigeria.

4.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select brands,sum(quantity) from b_table
2 where countries in ('Ghana','Nigeria') and years in (2018,2019) and brands in ('grand malt','beta malt')
3 group by brands
4 order by sum(quantity) desc
5
```

The 'Data output' tab shows the results of the query:

	brands character varying (50)	sum bigint
1	grand malt	33221
2	beta malt	32118

Total rows: 2 of 2 Query complete 00:00:00.087 Ln 5, Col 1

Grand malt is the favourite brand in Anglophone region in 2018 and 2019.

5.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query: `select brands, sum(quantity) from b_table where countries in ('Nigeria') and years in (2019) group by brands order by sum(quantity) desc`. The 'Data output' tab shows the results of the query.

	brands	sum
	character varying (50)	bigint
1	hero	9622
2	eagle lager	8401
3	beta malt	8389
4	grand malt	8125
5	trophy	5803
6	budweiser	5490
7	castle lite	3388

Total rows: 7 of 7 Query complete 00:00:00.115 Ln 2, Col 22

Hero sold the highest in Nigeria

6.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query: `select brands, sum(quantity) from b_table where region in ('southsouth') and countries in ('Nigeria') group by brands order by sum(quantity) desc`. The 'Data output' tab shows the results of the query.

	brands	sum
	character varying (50)	bigint
1	eagle lager	4551
2	trophy	4468
3	hero	4456
4	budweiser	4328
5	castle lite	4287
6	beta malt	4257
7	grand malt	3914

Total rows: 7 of 7 Query complete 00:00:00.141 Ln 5, Col 1

Eagle lager is the favourite brand in south south, Nigeria.

7.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select brands,sum(quantity) from b_table
2 where brands in ('budweiser','trophy','eagle lager','castle lite','hero')
3 and countries in ('Nigeria')
4 group by brands
5 order by sum(quantity) desc
6
```

The 'Data output' tab shows the results of the query:

	brands character varying (50)	sum bigint
1	budweiser	26153
2	eagle lager	25872
3	hero	25811
4	trophy	25743
5	castle lite	25681

Total rows: 5 of 5 Query complete 00:00:00.083 Ln 5, Col 28

Result of beer consumption in Nigeria.

8.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main pane shows a SQL query:

```
1 select region,sum(quantity) from b_table
2 where brands in ('budweiser')
3 and countries in ('Nigeria')
4 group by region
5 order by sum(quantity) desc
6
```

The 'Data output' tab shows the results of the query:

	region character varying (50)	sum bigint
1	west	4620
2	northcentral	4498
3	southsouth	4328
4	northeast	4320
5	northwest	4274
6	Southeast	4113

Total rows: 6 of 6 Query complete 00:00:00.116 Ln 1, Col 14

Budweiser consumption in Nigeria region.

9.

The screenshot shows the pgAdmin 4 interface. On the left, the 'b_table' table is selected under 'Tables (1)'. The main pane displays a SQL query:

```
1 select region,sum(quantity) from b_table
2 where brands in ('budweiser')
3 and countries in ('Nigeria') and years in (2019)
4 group by region
5 order by sum(quantity) desc
6
```

The 'Data output' tab shows the results of the query:

	region character varying (50)	sum bigint
1	Southeast	1821
2	northeast	990
3	northwest	948
4	west	884
5	southsouth	847

Total rows: 5 of 5 Query complete 00:00:00.230 Ln 3, Col 39

Budweiser consumption in Nigeria region in 2019 (decision on promo).

SECTION C- COUNTRIES ANALYSIS

1.

The screenshot shows the pgAdmin 4 interface. On the left, the 'b_table' table is selected under 'Tables (1)'. The main pane displays a SQL query:

```
1 select countries,sum(quantity) from b_table
2 where brands in ('budweiser','trophy','eagle lager','hero','castle lite')
3 group by countries
4 order by sum(quantity) desc
5
```

The 'Data output' tab shows the results of the query:

	countries character varying (50)	sum bigint
1	Senegal	129875
2	Nigeria	129260
3	Benin	127455
4	Ghana	127232
5	Togo	125548

Total rows: 5 of 5 Query complete 00:00:00.109 Ln 5, Col 1

Senegal has the highest beer consumption.

2.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main query editor contains the following SQL query:

```
1 select sales_rep,sum(quantity) from b_table
2 where brands in ('budweiser') and countries in ('Senegal')
3 group by sales_rep
4 order by sum(quantity) desc
5
```

The 'Data output' tab shows the results of the query:

	sales_rep	sum
1	Jones	5917
2	Sorvino	4246
3	Andrews	3336
4	Kivell	2813
5	Jardine	2507
6	Parent	1842
7	Smith	1673

Total rows: 11 of 11 Query complete 00:00:00.096 Ln 5, Col 1

Jones has the highest sales of Budweiser in Senegal.

3.

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, with 'b_table' selected under 'Tables (1)'. The main query editor contains the following SQL query:

```
1 select countries,sum(profit) from b_table
2 where years= 2019 and months in ('October','November','December')
3 group by countries
4 order by sum(profit) desc
5
```

The 'Data output' tab shows the results of the query:

	countries	sum
1	Ghana	2045230
2	Togo	1448360
3	Nigeria	1383280
4	Benin	1109130
5	Senegal	959260

Total rows: 5 of 5 Query complete 00:00:00.117 Ln 2, Col 57

Ghana has the highest profit in the fourth quarter (October, November, and December) in 2019.