

SECTION A

The screenshot shows the pgAdmin 4 interface for PostgreSQL 14. The title bar indicates the connection is to DB_csv/postgres@PostgreSQL 14. The main window has a toolbar at the top with various icons for file operations, search, and execution. Below the toolbar, there are two tabs: "Query" (selected) and "Query History". The "Query" tab contains the following SQL code:

```
1 select sum(profit) total_profit
2 from csv_table
3 where years in (2017, 2018, 2019)
4
5
```

Below the code, the "Data output" tab is selected, showing the results of the query:

	sum	bigint
1	105587420	

1.

Tools Help

DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv/post

DB_csv/postgres@PostgreSQL 14

Query History

```
1
2     select distinct(
3         case
4             when countries = 'Nigeria' then 'anglophone'
5             when countries = 'Ghana' then 'anglophone'
6             when countries = 'Benin' then 'francophone'
7             when countries= 'Togo' then 'francophone'
8             when countries = 'Senegal' then 'francophone'
9         end )as territories, sum(profit) total_profit
10        from csv_table
11        group by territories
12        order by sum(profit)
13
```

Data output Messages Notifications

	territories	total_profit
1	anglophone	42389260
2	francopho...	63198160

Total rows: 2 of 2 Query complete 00:00:00.149

The screenshot shows a pgAdmin 4 interface. At the top, there are tabs for 'Tools' and 'Help'. Below that is a row of icons for database connections, all labeled 'DB_csv/postgres'. The main window title is 'DB_csv/postgres@PostgreSQL 14'. Below the title is a toolbar with various icons. The main area has two tabs: 'Query' (selected) and 'Query History'. The 'Query' tab contains a multi-line code editor with a numbered script. The script uses a CASE statement to map country names to territories ('anglophone' or 'francophone') and then groups by territory to calculate the total profit. The 'Data output' tab is selected at the bottom, showing a table with two rows of data. The table has three columns: an index (1, 2), 'territories' (anglophone, francopho...), and 'total_profit' (42389260, 63198160). The status bar at the bottom indicates 'Total rows: 2 of 2' and 'Query complete 00:00:00.149'.

2.

Tools Help

DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB...

DB_csv/postgres@PostgreSQL 14

No limit

Query History

Execute/Refresh F5

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

Data output Messages Notifications

	countries	total_profit
1	character varying (50)	bigint
1	Ghana	7144070

3.

4.

DB_csv/postgres@PostgreSQL 14

Query History

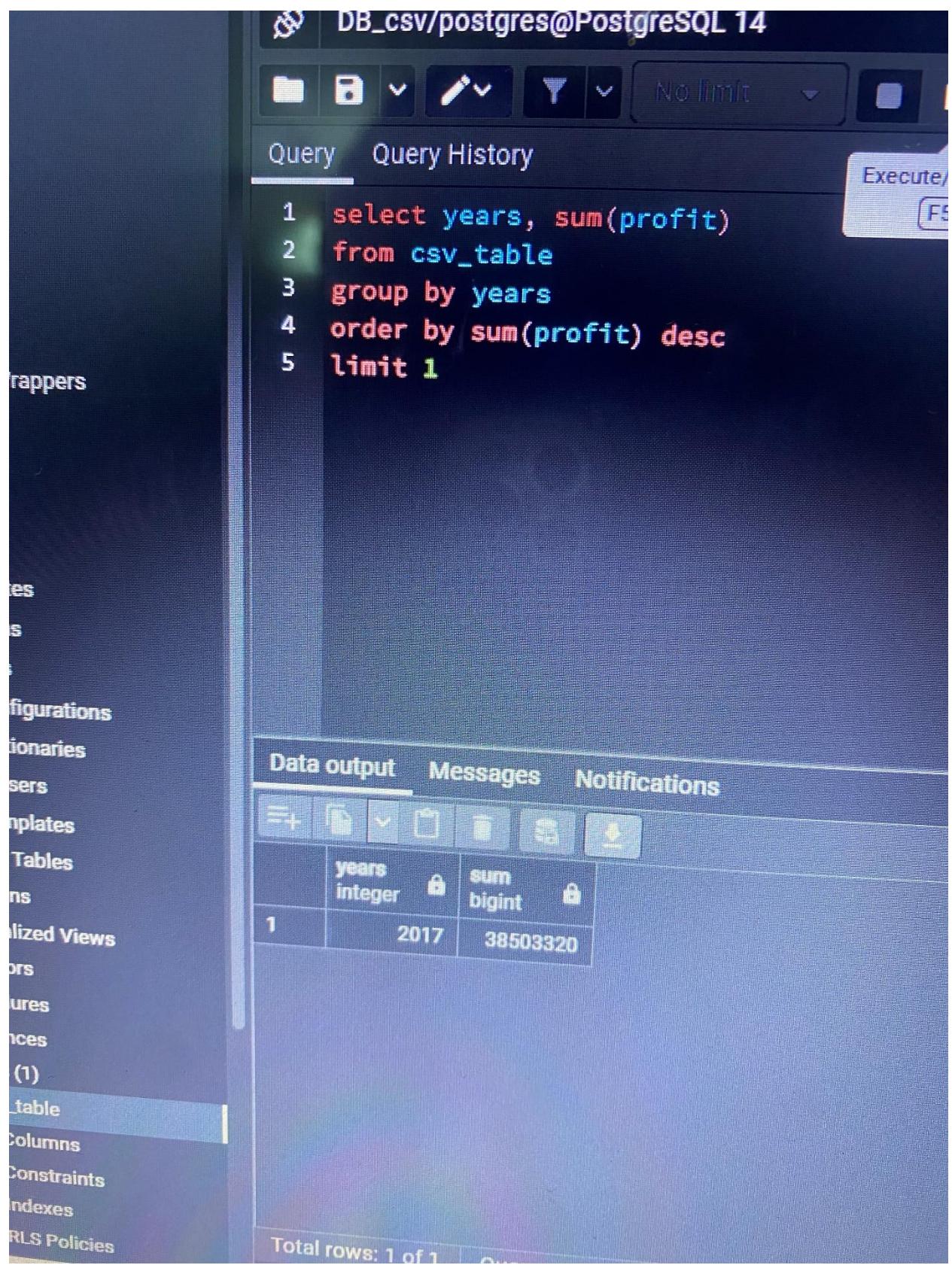
```
1 select years, sum(profit)
2 from csv_table
3 group by years
4 order by sum(profit) desc
5 limit 1
```

Execute/ F5

Data output Messages Notifications

	years integer	sum bigint
1	2017	38503320

Total rows: 1 of 1



Help ▾

DB_csv/postgr... DB_csv/postgr... DB_csv/postgr...

DB_csv/postgres@PostgreSQL 14

Query History

```
1 select months, min(profit)
2 from csv_table
3 where years in ('2017', '2018', '2019')
4 group by months
5 order by min(profit)
6 limit 1
7
```

Data output Messages Notifications

	months	min
character varying (50)	integer	35000
1	December	

5.

The screenshot shows a database query editor interface. At the top, there are several icons: a folder, a save button, a dropdown menu, a pencil for edit, a filter icon, another dropdown, and a play button with a dropdown. To the right of these is a dropdown set to "No limit". Below the toolbar, there are two tabs: "Query" (which is selected) and "Query History".

The main area contains the following SQL code:

```
1 select min(profit)
2 from csv_table
3 where years = 2018
4 and months = 'December'
5 limit 1
6
```

Below the code, there is a "Data output" section with three tabs: "Data output" (selected), "Messages", and "Notifications". Under "Data output", there is a table with one row:

	min	
	integer	🔒
1	38150	

6.

Help ▾

tgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... D

DB_csv/postgres@PostgreSQL 14

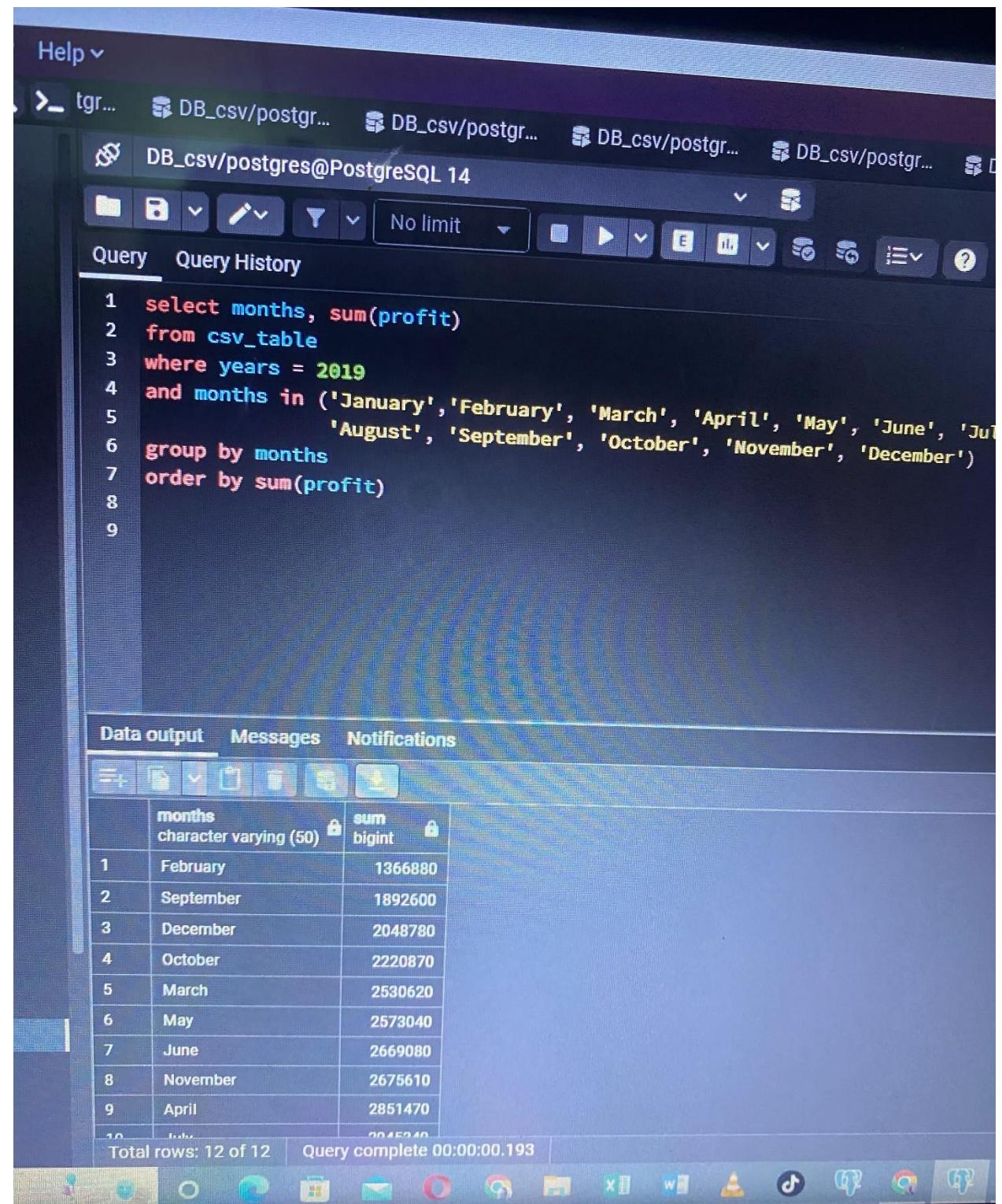
Query History

```
1 select months, sum(profit)
2 from csv_table
3 where years = 2019
4 and months in ('January', 'February', 'March', 'April', 'May', 'June', 'Ju
5 'August', 'September', 'October', 'November', 'December')
6 group by months
7 order by sum(profit)
8
9
```

Data output Messages Notifications

	months	sum
	character varying (50)	bigint
1	February	1366880
2	September	1892600
3	December	2048780
4	October	2220870
5	March	2530620
6	May	2573040
7	June	2669080
8	November	2675610
9	April	2851470
10	July	3045240

Total rows: 12 of 12 Query complete 00:00:00.193



7.

Tools ▾ Help ▾

tgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr...

DB_csv/postgres@PostgreSQL 14

No limit

Query History

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

Data output Messages Notifications

	brands	sum
1	castle lite	7012980

SECTION B

The screenshot shows the pgAdmin 4 interface connected to a PostgreSQL database named DB_csv/postgres. The query window displays a SQL SELECT statement:

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

The results are shown in a Data output tab, displaying three rows of data:

	brands	sum
1	trophy	52899
2	hero	50846
3	eagle lager	50630

Total rows: 3 of 3 | Query complete 00:00:00.162

1.

2.

The screenshot shows the pgAdmin 4 interface. The top bar has 'Tools' and 'Help' dropdowns, followed by several icons. The title bar shows the connection name 'DB_csv/postgres@PostgreSQL 14*' and the port '5432'. The main window has a toolbar with various icons. Below the toolbar is a tab bar with 'Query' and 'Query History' tabs, where 'Query' is selected. The query editor contains the following SQL code:

```
1 select brands, sum(quantity)
2 from csv_table
3 where countries = 'Ghana'
4 group by brands
5 order by sum(quantity) desc
6 limit 2
7
```

Below the query editor is a 'Data output' section with tabs for 'Messages' and 'Notifications'. It displays a table with two rows of data:

	brands	sum
1	eagle lager	25829
2	castle lite	25806

Dashboard Properties SQL Statistics Dependencies Dependents public.csv_table... DB_csv/postgr... DB...

DB_csv/postgres@PostgreSQL 14

No limit Execute/Refresh F5

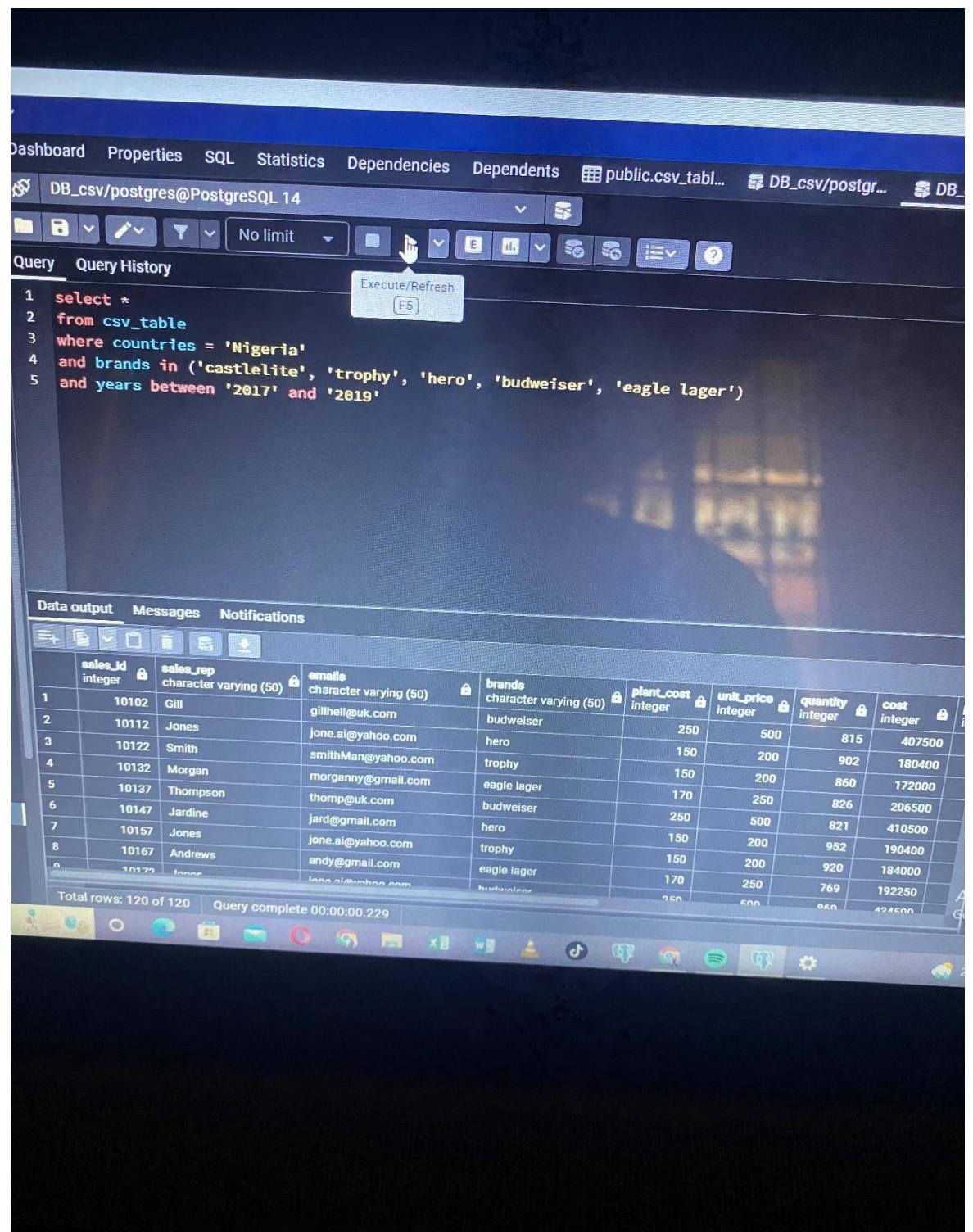
Query History

```
1 select *
2 from csv_table
3 where countries = 'Nigeria'
4 and brands in ('castlelite', 'trophy', 'hero', 'budweiser', 'eagle lager')
5 and years between '2017' and '2019'
```

Data output Messages Notifications

	sales_id	sales_rep	email	brands	plant_cost	unit_price	quantity	cost
1	10102	Gill	gillhell@uk.com	budweiser	250	500	815	407500
2	10112	Jones	jone.ai@yahoo.com	hero	150	200	902	180400
3	10122	Smith	smithMan@yahoo.com	trophy	150	200	860	172000
4	10132	Morgan	morganny@gmail.com	eagle lager	170	250	826	206500
5	10137	Thompson	thomp@uk.com	budweiser	250	500	821	410500
6	10147	Jardine	jard@gmail.com	hero	150	200	952	190400
7	10157	Jones	jone.ai@yahoo.com	trophy	150	200	920	184000
8	10167	Andrews	andy@gmail.com	eagle lager	170	250	769	192250
9	10172	Irene	irene.ai@yahoo.com	budweiser	250	500	960	424500

Total rows: 120 of 120 Query complete 00:00:00.229

A screenshot of the pgAdmin 4 interface. The top navigation bar includes 'Dashboard', 'Properties', 'SQL', 'Statistics', 'Dependencies', 'Dependents', 'public.csv_table...', 'DB_csv/postgr...', and 'DB...'. Below the bar, there's a toolbar with various icons. The main area has tabs for 'Query' and 'Query History', with 'Query' currently selected. A SQL query is written in the text area:

```
1 select *
2 from csv_table
3 where countries = 'Nigeria'
4 and brands in ('castlelite', 'trophy', 'hero', 'budweiser', 'eagle lager')
5 and years between '2017' and '2019'
```

A tooltip 'Execute/Refresh F5' points to the execute button in the toolbar. Below the query, the 'Data output' tab is active, displaying a table with 120 rows of data. The columns are labeled: sales_id, sales_rep, email, brands, plant_cost, unit_price, quantity, and cost. The table shows various sales records with different representatives, emails, brands like budweiser, hero, trophy, eagle lager, and castlelite, and their respective costs and quantities. At the bottom of the table, it says 'Total rows: 120 of 120 Query complete 00:00:00.229'. The bottom of the screen shows the Windows taskbar with various icons.

3.

DB_csv/postgres@PostgreSQL 14

No limit

Query History

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

Data output Messages Notifications

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

4.

DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv

DB_csv/postgres@PostgreSQL 14

Query History

```
1 select brands, sum(quantity) total_qty
2 from csv_table
3 where countries = 'Nigeria'
4 and years = 2019
5 group by brands
6 order by sum(quantity) desc
7 limit 1
8
```

I

Data output Messages Notifications

	brands	total_qty
1	hero	9622

5.

DB_csv/postgres@PostgreSQL 14

No limit

Query History

```
1 select brands, sum(quantity) total_qty
2 from csv_table
3 where region = 'southsouth'
4 and countries = 'Nigeria'
5 group by brands
6 order by sum(quantity) desc
7 limit 1
```

Data output Messages Notifications

	brands	totalQty
1	eagle lager	4551

6.

Dashboard Properties SQL Statistics Dependencies Dependents DB_csv/postgres@PostgreSQL 14*

Query History

```
select *
from csv_table
where countries = 'Nigeria'
and brands not like '%malt'
```

Data output Messages Notifications

	sales_id	sales_rep	emails	brands	plant_cost	unit_price	quantity	cost	profit
1	10102	Gill	gillhell@uk.com	budweiser	250	500	815	407500	2037
2	10112	Jones	jone.ai@yahoo.com	hero	150	200	902	180400	451
3	10117	Parent	parentty@uk.com	castle lite	180	450	837	376650	2259
4	10122	Smith	smithMan@yahoo.com	trophy	150	200	860	172000	430
5	10132	Morgan	morganny@gmail.com	eagle lager	170	250	826	206500	660
6	10137	Thompson	thomp@uk.com	budweiser	250	500	821	410500	2052
7	10147	Jardine	jard@gmail.com	hero	150	200	952	190400	476
8	10152	Parent	parentty@uk.com	castle lite	180	450	878	395100	2370
9	10157	Jones	jone.ai@yahoo.com	trophy	150	200	920	184000	460
10	10159	Anderson	anderson@uk.com	hero	170	250	760	300000	680

Total rows: 150 of 150 | Query complete 00:00:01.352

Activ Go to

The screenshot shows a PostgreSQL database interface with a dark theme. At the top, there's a navigation bar with links like Dashboard, Properties, SQL, Statistics, Dependencies, Dependents, and a connection identifier DB_csv/postgres@PostgreSQL 14*. Below the navigation bar is a toolbar with various icons for database operations. The main area contains a query editor window with the following SQL code:

```
select *
from csv_table
where countries = 'Nigeria'
and brands not like '%malt'
```

Below the query editor is a data output section containing a table with 150 rows of data. The table has columns: sales_id, sales_rep, emails, brands, plant_cost, unit_price, quantity, cost, and profit. The table shows data for various sales representatives like Gill, Jones, Parent, Smith, Morgan, Thompson, Jardine, and Anderson, with brands such as budweiser, hero, castle lite, trophy, and eagle lager. The cost and profit columns show significant values, ranging from 407500 to 300000. The bottom of the data output section displays the message "Total rows: 150 of 150 | Query complete 00:00:01.352".

7.

```
8. select region, sum(quantity)
   from csv_table
  where countries = 'Nigeria'
    and brands = 'budweiser'
 group by region
order by sum(quantity)desc
```

	region	sum
1	west	4620
2	northcentral	4498
3	southsouth	4328
4	northeast	4320
5	northwest	4274
6	Southeast	4113

Query Query History

Execute/Refresh F5

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

Data output Messages Notifications

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

9.

SECTION C

1.

The screenshot shows the pgAdmin 4 interface for PostgreSQL 14. The title bar indicates the connection is to DB_csv/postgres@PostgreSQL 14. The main window displays a SQL query in the Query tab:

```
1 select countries, sum(quantity)
2 from csv_table
3 where brands in ('eagle lager', 'hero', 'budweiser', 'trophy', 'c
4 group by countries
5 order by sum(quantity) desc
6 limit 1
```

A mouse cursor is hovering over the 'Execute/Refresh' button, which is highlighted with a blue rounded rectangle and labeled 'F5'. Below the query, the Data output tab is selected, showing the results of the query:

	countries	sum
1	character varying (50) Senegal	bigint 129875

ools ▾ Help ▾

Dashboard Properties SQL Statistics Dependencies Dependents pub

DB_csv/postgres@PostgreSQL 14

No limit

Query History

```
1 select sales_rep, sum(quantity)
2 from csv_table
3 where brands = 'budweiser'
4 and countries = 'Senegal'
5 group by sales_rep
6 order by sum(quantity) desc
7 limit 1
```

Data output Messages Notifications

	sales_rep	sum
1	character varying (50)	bigint
1	Jones	5917

2.

Help ▾

DB_csv/postgr... DB_csv/postgr... DB_csv/postgr... DB_csv/postgr...

DB_csv/postgres@PostgreSQL 14

Query History

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

Data output Messages Notifications

	countries	max_profit
1	character varying (50)	bigint
1	Ghana	2045230

3.