Launching the database:

First: click start lab button, then click AWS after it's green.

Click the database on the left side and go to security groups and edit inbound rules, Modify the rule by clicking using "my IP" and then pgAdmin can connect to the server.

Second: open pgAdmin and type in username and password set in advance on AWS service, done!

Creating the new tables:

First: click schema➔tables and right click create table, then go to the column tab to key in the titles of all the columns and specify all the types for the two tables as below:

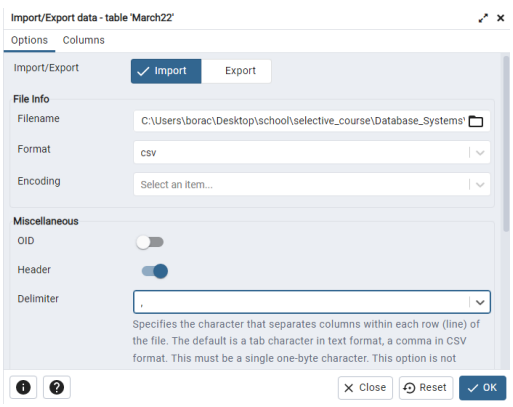
Columns

	Name	Data type	Length/Precision	Scale	Not NULL?	Primary key?	Default
	FIPS	character varying	5				
	Admin2	character varying	100				
	Province_State	character varying	100				
	Country_Region	character varying	40				
	Last_Update	timestamp without time...					
	Lat_	double precision					
	Long_	double precision					
	Confirmed	integer					
	Deaths	integer					
	Recovered	integer					
	Active	integer					
	Combined_Key	character varying					
	Incident_Rate	double precision					
	Case_Fatality_Ratio	double precision					

(Combined_Key is set to be the primary key)

Then right click import data and choose the csv file, turn on the header option and choose the comma as the delimiter.

Tables created!



And then we can type SQL queries

In the 'SQL' tag now.

Queries & results:

a.

```
select sum("Confirmed")
from (select *
      from "March22"
      union
      select *
      from "March23"
     ) as tmp
where ("Province_State" = 'Kansas' and Date("Last_Update") = '2022-03-24')
```

	sum bigint
1	770314

b.

```
select "Country_Region"
from (select "Country_Region", "Last_Update", sum("Confirmed")
      from "March22"
      group by "Country_Region", "Last_Update"
      union
      select "Country_Region", "Last_Update", sum("Confirmed")
      from "March23"
      group by "Country_Region", "Last_Update"
     ) as tmp
where(sum > 1000000 and Date("Last_Update") = '2022-03-24')
```

	Country_Region character varying (40)
1	India
2	Sweden
3	Iraq
4	US
5	France
6	Georgia
7	Argentina
8	Bangladesh
9	Russia
10	Indonesia
11	Czechia
12	Morocco
13	Austria
14	Lebanon
15	Korea, South
16	Slovakia
17	Colombia
18	Belgium
19	Mexico
20	United Kingdom
21	Chile
22	Norway
23	Israel
24	Spain
25	Kazakhstan
26	Switzerland
27	Ireland
28	Denmark
29	Peru
30	South Africa
31	Romania
32	Croatia
33	Australia
34	Vietnam
35	Serbia
36	Philippines
37	Thailand
38	Lithuania
39	Netherlands
40	Turkey
41	Italy
42	Poland
43	Canada
44	Tunisia
45	China
46	Greece
47	Cuba
48	Singapore
49	Jordan
50	Brazil
51	Malaysia
52	Iran
53	Japan
54	Hungary
55	Pakistan
56	Bulgaria
57	Portugal
58	Germany

c.

```
select sec."Country_Region" as "Country_Region", sec.sum-fir.sum as "New_Case"
from ((select "Country_Region", sum("Confirmed")
      from "March22"
      group by "Country_Region") as fir
      inner join
      (select "Country_Region", sum("Confirmed")
      from "March23"
      group by "Country_Region") as sec
      on fir."Country_Region" = sec."Country_Region"
      )
where sec.sum-fir.sum > 100000
```

	Country_Region character varying (40)	New_Case bigint
1	France	154118
2	Korea, South	395589
3	United Kingdom	103078
4	Germany	158385
5	Vietnam	140837