

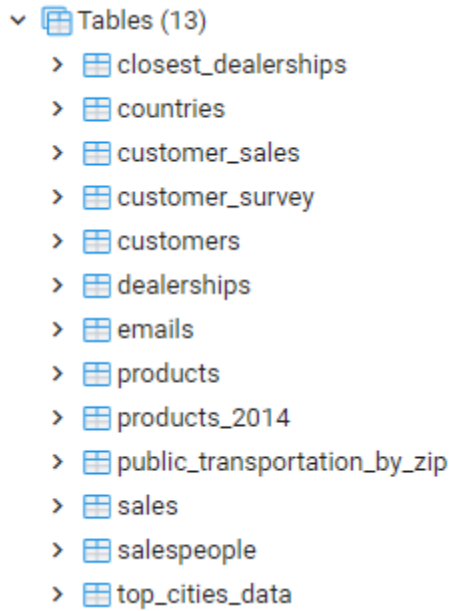
## **What is a Dump Files**

I have never actually looked up what the definition of a dump file is. I have just always assumed that it is a file that holds a bunch of information as text. Well today is the day that I looked up what a dump file is. Turns out I was not that far off.

They are called dump files because you a program is essentially taking it raw data and dumping it into a file with next to no formatting. There are other forms of dump files, but I will be dealing with a text dump file

## **Creating a Dump File in PostgreSQL in 2 Steps**

To create a this dump file, I assume that you have a PostgreSQL database already handy. I will be using the one I had to create for this tutorial. It is called sqlda2 has the following tables. You can think of this database as an vehicle dealership that only sells electric scooters and electric cars. Now is a good time to mention that this is all made up data. These tables and all of the data contained within will be dumped into a text file.



Database Table Tree

Now on to creating a dump file. Here is how:

Step 1:

Open command prompt and navigate to the version of PostgreSQL you are using's bin folder. I am using version 13 so this is what mine looks like:

```
C:\Users\username>cd C:\Program Files\PostgreSQL\13\bin
C:\Program Files\PostgreSQL\13\bin>
```

Step 2:

Run the following command replacing *USERNAME* with the your username, the *DBNAME* with the database you want to dump, and

the *BACKUP\_FILE\_NAME\_AND\_PATH* with the place and name you want it to be.

*pg\_dump.exe -U USERNAME -d DBNAME -f  
BACKUP\_FILE\_NAME\_AND\_PATH*

```
C:\Program Files\PostgreSQL\13\bin>pg_dump.exe -U postgres -d  
sqlda2 -f c:\users\username\desktop\test.dump  
Password:
```

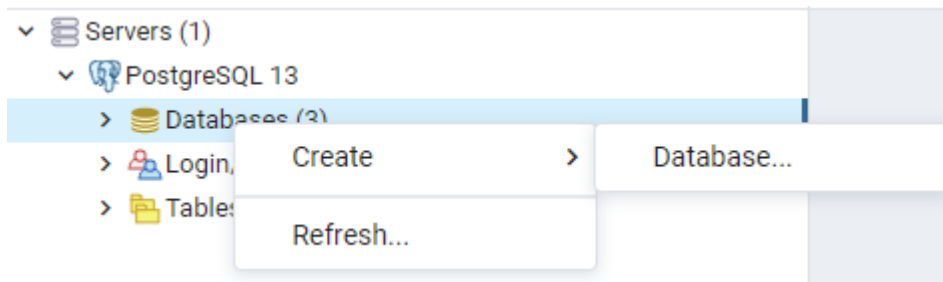
Once you press enter you will be prompted for your password. Input password and press enter. Congratulations you just created a dump file and backed up your database!

## **Restoring a PostgreSQL Database from Dump File in 4 Steps**

So something has happened to your database and you need to restore it. It is pretty miraculous that you created a backup dump file of it not too long ago. You follow these 3 steps and you will be back up and running in no time.

Step 1:

Open pgAdmin4, click the servers dropdown, then click the PostgreSQL <version #> dropdown, and the right click databases. Hover over create and then click on database.



Database Creation in PostgreSQL

Step 2:

Give the database a name and make sure the owner is correct and click save.

A screenshot of a 'Create - Database' dialog box. The title bar says 'Create - Database' with a close button. There are five tabs: 'General', 'Definition', 'Security', 'Parameters', 'Advanced', and 'SQL'. The 'General' tab is selected. It contains three main fields: 'Database' with the text 'test', 'Owner' with a dropdown menu showing 'postgres' and a user icon, and a 'Comment' text area. At the bottom, there are three buttons: 'Cancel' (with a red X icon), 'Reset' (with a circular arrow icon), and 'Save' (in a dark blue box). On the bottom left, there are two small icons: an information 'i' icon and a help '?' icon.

Name the Database

### Step 3:

Open command prompt and navigate to the version of PostgreSQL you are using's bin folder. I am using version 13 so this is what mine looks like.

```
C:\Users\username>cd C:\Program Files\PostgreSQL\13\bin  
C:\Program Files\PostgreSQL\13\bin>
```

### Step 4:

Run the following command replacing *USERNAME* with the your username, the *DBNAME* with the database you want to restore, and the *BACKUP\_FILE\_NAME\_AND\_PATH* with the place and name it is stored.

*psql.exe -U USERNAME -d DBNAME -f*

*BACKUP\_FILE\_NAME\_AND\_PATH*

```
C:\Program Files\PostgreSQL\13\bin>psql.exe -U postgres -d test -f  
c:\users\username\desktop\test.dump  
Password:
```

Once you press enter you will be prompted for your password. Input password and press enter. You will get something similar to this as it is being ran.

```
ALTER TABLE  
CREATE TABLE  
ALTER TABLE  
COPY 44533  
COPY 0  
COPY 50000  
COPY 32  
COPY 50000  
COPY 20  
COPY 418158  
COPY 13  
COPY 2  
COPY 15412  
COPY 37711  
COPY 300  
COPY 20  
ALTER TABLE  
ALTER TABLE  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
CREATE INDEX  
REFRESH MATERIALIZED VIEW  
REFRESH MATERIALIZED VIEW
```

## Verify Restoration of Database

Now that the restore has been run, you should be able to open pgAdmin 4 and find your restored database. I am able to verify that the restore was successful.

- ▼ test
  - > Casts
  - > Catalogs
  - > Event Triggers
  - > Extensions
  - > Foreign Data Wrappers
  - > Languages
  - ▼ Schemas (1)
    - ▼ public
      - > Collations
      - > Domains
      - > FTS Configurations
      - > FTS Dictionaries
      - > FTS Parsers
      - > FTS Templates
      - > Foreign Tables
      - > Functions
      - > Materialized Views
      - > Procedures
      - > Sequences
      - ▼ Tables (13)
        - > closest\_dealerships
        - > countries
        - > customer\_sales
        - > customer\_survey
        - > customers
        - > dealerships
        - > emails
        - > products
        - > products\_2014
        - > public\_transportation\_by\_zip
        - > sales
        - > salespeople
        - > top\_cities\_data

You can run some quick SQL code to see that it was indeed successful.

```

select *
from customers
where title is not null
      and phone is not null
order by last_name
limit 10;select c.customer_id
      , c.first_name
      , c.last_name
      , p.product_id
      , p.model
      , p.year
      , p.product_type
      , s.sales_amount
      , s.sales_transaction_date
from sales s
left outer join customers c on s.customer_id = c.customer_id
left outer join products p on s.product_id = p.product_id
order by s.sales_transaction_date desc;select c.customer_id
      , c.first_name
      , c.last_name
      , p.product_id
      , p.model
      , p.year
      , p.product_type
      , s.sales_amount
      , s.sales_transaction_date
from sales s
left outer join customers c on s.customer_id = c.customer_id
left outer join products p on s.product_id = p.product_id
order by s.sales_transaction_date desc

```

**Thank you for reading and I hope you enjoyed!**

Source:

<https://medium.com/codex/postgresql-and-their-dumps-in-windows-10-fdff4c960ea3>