Objectives

After completing this lab, you will be able to use the PostgreSQL CLI and pgAdmin to:

- Restore a full database from a backup
- Update a database and perform a full backup
- Drop a database and then restore it

Aim: the PostgreSQL Command Line Interface (CLI) to restore a full database from a backup. Then using a combination of the CLI and pgAdmin, which is a Graphical User Interface (GUI) for postgreSQL, you will make some changes to this database and perform a full backup. Finally, you will then delete this database to practice a full restoration in the scenario of an accidental deletion.

DOWNLOAD RUSSIA_small.sql

theia@theiadocker-rajendraabrotheia@theiadocker-rajendraabro:/home/project$ wurses-data.s3

wget
https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/example-guided-project/flights_RUSSIA_small.sql

--2025-12-24 07:36:15--
https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/example-guided-project/flights_RUSSIA_small.sql

Resolving cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud
(cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud)... 169.63.118.104, 169.63.118.104

Connecting to cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud
(cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud)|169.63.118.104|:443... connected.

HTTP request sent, awaiting response... 200 OK

Length: 103865229 (99M) [application/x-sql]

Saving to: 'flights_RUSSIA_small.sql'

2025-12-24 07:36:18 (39.3 MB/s) - 'flights_RUSSIA_small.sql' saved [103865229/103865229]

RESTORE DEMO DATABASE


```
postgres=# \i flights_RUSSIA_small.sql
SET
SET
SET
SET
SET
SET
SET
SET
psql:flights_RUSSIA_small.sql:17: ERROR:  database "demo" does not exist
CREATE DATABASE
psql (14.19 (Ubuntu 14.19-0ubuntu0.22.04.1), server 13.2)
You are now connected to database "demo" as user "postgres".
SET
SET
SET
SET
SET
SET
SET
SET
CREATE SCHEMA
COMMENT
CREATE EXTENSION
COMMENT
SET
CREATE FUNCTION
CREATE FUNCTION
COMMENT
SET
SET
CREATE TABLE
COMMENT
COMMENT
COMMENT
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CREATE VIEW
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CREATE TABLE
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ALTER SEQUENCE
CREATE VIEW
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CREATE TABLE
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CREATE TABLE
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```
COMMENT
COMMENT
COMMENT
ALTER TABLE
COPY 9
COPY 104
COPY 579686
COPY 262788
COPY 33121
 setval
--------
  33121
(1 row)

COPY 1339
COPY 1045726
COPY 366733
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
ALTER TABLE
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ALTER TABLE
ALTER TABLE
ALTER DATABASE
ALTER DATABASE

postgres=# \i flights_RUSSIA_small.sql
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SET
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COMMENT
SET
SET
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COMMENT
COMMENT
COMMENT
CREATE VIEW
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CREATE TABLE
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CREATE TABLE
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CREATE TABLE
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CREATE SEQUENCE
ALTER SEQUENCE
CREATE VIEW
```

```
COMMENT
COMMENT
CREATE VIEW
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CREATE TABLE
COMMENT
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CREATE TABLE
COMMENT
COMMENT
ALTER TABLE
COPY 9
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 setval
--------
   33121
(1 row)

COPY 1339
COPY 1045726
COPY 366733
ALTER TABLE
ALTER TABLE
ALTER DATABASE
ALTER DATABASE
```

\dt for checking restored demo database

```
          List of relations
 Schema  |      Name       | Type  |  Owner
----------+-----------------+-------+----------
 bookings | aircrafts_data  | table | postgres
 bookings | airports_data   | table | postgres
 bookings | boarding_passes | table | po:
```

demo=# SELECT * FROM aircrafts_data;

```
aircraft_code |           model            | range
---------------+----------------------------+-------
 773          | {"en": "Boeing 777-300"}    | 11100
 763          | {"en": "Boeing 767-300"}    |  7900
 SU9          | {"en": "Sukhoi Superjet-100"} |  3000
 320          | {"en": "Airbus A320-200"}   |  5700
 321          | {"en": "Airbus A321-200"}   |  5600
 319          | {"en": "Airbus A319-100"}   |  6700
 733          | {"en": "Boeing 737-300"}    |  4200
 CN1          | {"en": "Cessna 208 Caravan"} |  1200
```
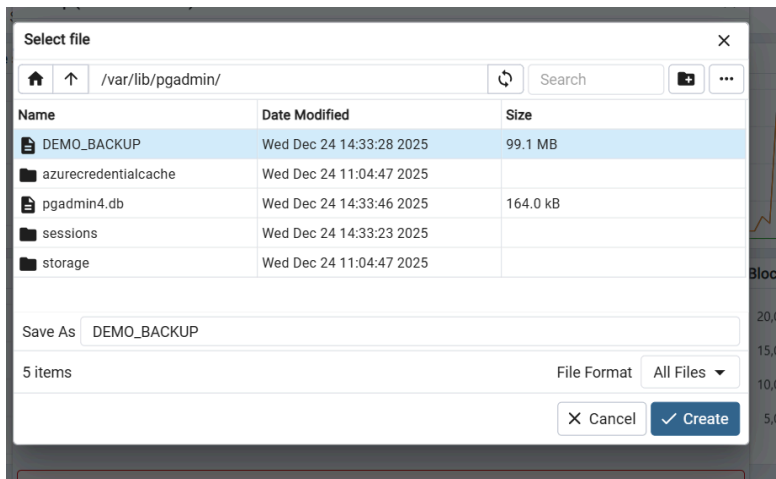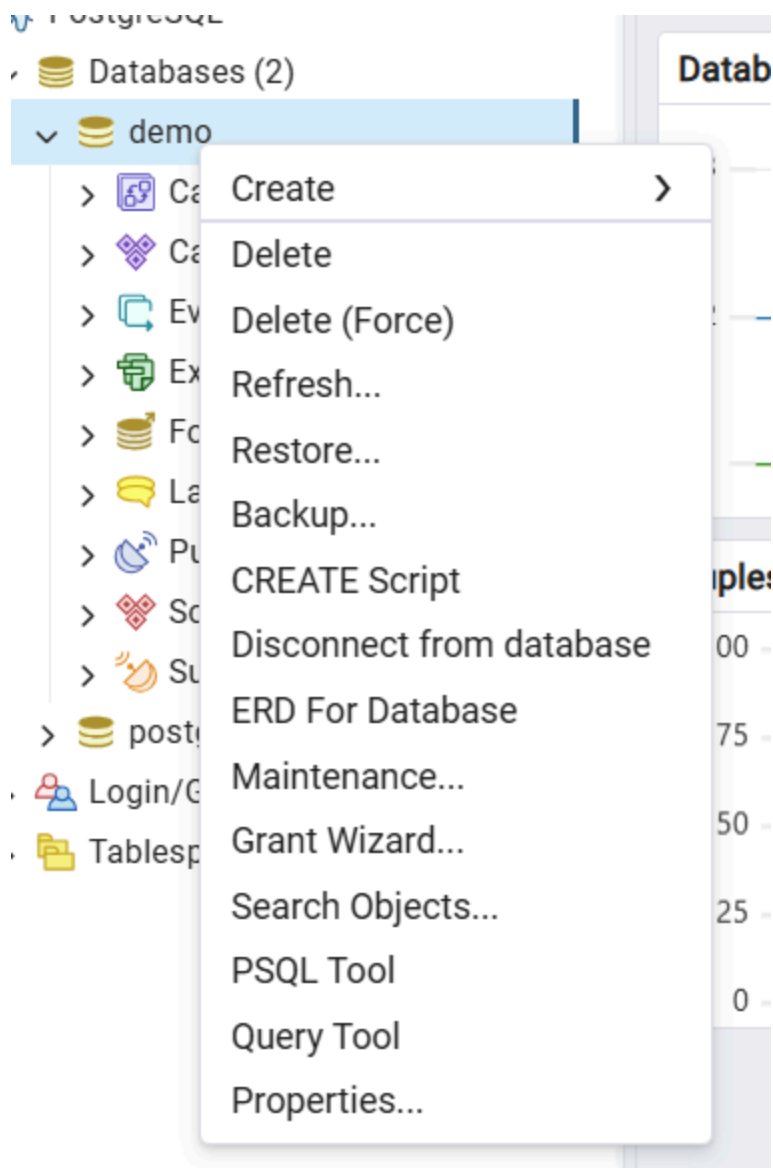
Load data

demo=# INSERT INTO aircrafts_data(aircraft_code, model, range) VALUES (380, '{"en": "Airbus A380-800"}', 15700);
INSERT 0 1

PG-ADMIN
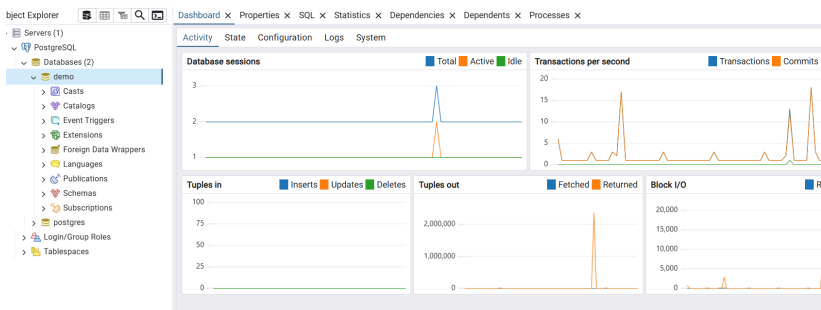
Database >backup

Delete.

Task B: Restore the Database using the Full Backup

Create database and restore demo database with left click "restore". And connect demo_restore

postgres=# \connect demo_restore
psql (14.19 (Ubuntu 14.19-0ubuntu0.22.04.1), server 13.2)
You are now connected to database "demo_restore" as user "postgres".

To set the proper search path for your database

demo_restore=# SELECT pg_catalog.set_config('search_path', 'bookings', false);
 set_config
----
 bookings
(1 row)

Check restore database

demo_restore=# \dt
            List of relations
 Schema | Name | Type | Owner
----------+-----------------+-------+----------
 bookings | aircrafts_data | table | postgres
 bookings | airports_data | table | postgres
 bookings | boarding_passes | table | postgres
 bookings | bookings | table | postgres
 bookings | flights | table | postgres
 bookings | seats | table | postgres
 bookings | ticket_flights | table | postgres
 bookings | tickets | table | postgres
(8 rows)

```
demo_restore=# SELECT * FROM aircrafts_data;

 aircraft_code |            model            | range
---------------+-----------------------------+-------
 773           | {"en": "Boeing 777-300"}    | 11100
 763           | {"en": "Boeing 767-300"}    |  7900
 SU9           | {"en": "Sukhoi Superjet-100"} |  3000
 320           | {"en": "Airbus A320-200"}   |  5700
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 CN1           | {"en": "Cessna 208 Caravan"} |  1200
:
```