

# Restore from Backup

*by Sophia Tutorial*



## WHAT'S COVERED

This tutorial explores using `psql` or `pg_restore` to restore data from a backup in the command line in two parts:

1. Getting Started
2. Running A Query

## 1. Getting Started

There are two commands that can be used to restore from database backups. The `psql` command will restore plain SQL script files that have been created by `pg_dump` and `pg_dump` tools. The `pg_restore` command is a utility that allows us to restore a PostgreSQL database from an archive that has been created using the `pg_dump` command using one of the non-plain text formats such as a tar. This command will execute the commands to reconstruct the database to the time in which the database backup was created. Within the archive file, the `pg_restore` has the ability to identify what items are restored as well as the items to be restored.

First, we will look at the `psql` tool. By using the `psql` tool, you can execute the entire SQL script at once. The command will look like the following:

```
psql -U adminrole -f backupfile.sql
```

This will log in using the admin role, although you will need to enter in the password and run the `backupfile.sql` to restore the data. Similar to the `pg_dump` tool, there are other options that can be passed in:

- The `-a` option will output all of the input lines to the standard output so you will be able to visually see the progress of the restore.
- The `-d` option will allow you to specify the database name to connect to, like `-d mydb`.
- The `-W` will force `psql` to prompt for a password if needed.

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## 2. Running A Query

The `pg_restore` focuses on restoring databases that are in a non-text format created from the `pg_dump` or `pg_dumpall` tools. Using this command, you can specify database objects from a database file that contains

full databases or individual databases. This tool can also take a backed-up database from an older version of a database and restore it in a new version.

For example, say we had a backup.tar file that had been created in the same folder. We can restore the database by doing:

```
pg_restore -d mydb -f backup.tar
```

We also have options with the pg\_restore:

- The -a option will only restore the data, but not create the schema. This would assume that the schema has already been created.
- The -c option will clean/drop the database objects before they are recreated.
- The -C with an uppercase C will create the entire database before restoring it. If the -d database is used, it will drop the current database and recreate it before the restoring is done.
- The -f can pass the filename if we include the file name.
- The -s will only create the schema but not restore the data into the database.
- With the -t option, we can specify the table name to restore.



## SUMMARY

The psql and pg\_restore commands are used to restore the database.

Source: Authored by Vincent Tran