

# CS 345 Postgres Command Guide

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## Getting started

For our work in class we will be using the Postgres database management system. This system is already installed in all classroom computers, along with a set of databases which we will use for some of our in class work.

The laptops in our classroom are dual-boot, so make sure that you are in macOS before proceeding. If you are not in macOS, restart and select macOS when the selection screen displays.

We will be making use of a terminal application to run postgres and issue commands. To start the terminal application click on the magnifying glass on the top right corner of the screen and type 'terminal'. Then, select the terminal application from the results that appear underneath.

Before actually using any databases, we will need to start up the postgres server, which we can do by entering the following command:

```
sudo -u dbadmin postgresUmassctl start
```

We will then need to connect to the server by entering:

```
psql -U dbadmin -d postgres
```

At the end of class, please stop the Postgres server with the command:

```
sudo -u dbadmin postgresUmassctl stop
```

From the terminal application, you can see a list of these commands by typing:

```
helppostgres
```

## Commands used while running Postgres

These are postgres-specific (non-SQL) commands used inside of the postgres client. For additional help, type \? or \h in the client.

\q quit  
\c <database> connect to a database  
\l list all databases  
\dt list all tables in the current database  
\r clear the buffer

## Additional notes

- Please don't delete/drop the preinstalled databases
- Any data you create or change in Postgres will be available if you log into the same computer again at a later point. This is not the case for anything else, however, so if you create any word documents, text files, etc. while logged into a classroom computer, they will not be retrievable at a later point.
- All SQL commands must end with a semicolon. If you enter a command without a semicolon, or if you forget to close a pair of quotations, the line of text will be added to a buffer rather than being run. If this happens, use \r to clear your buffer and then run your command.
- If at any time a command doesn't run or you get a strange error, a good first step is to try clearing the buffer and then running the command.