

# CS 166: PostgreSQL Quick Start Guide

October 10, 2016

1. Log in to lab computer with your CS account.
2. Setup your PostgreSQL environment

(a) Create a folder under /tmp as the environment of your test database:

```
$ mkdir /tmp/$LOGNAME
```

(b) Create a data and socket folder under your environment, which will contain Postgre data files and socket information:

```
$ cd /tmp/$LOGNAME
$ mkdir test
$ mkdir test/data
$ mkdir sockets
$ export PGDATA=/tmp/$LOGNAME/test/data
```

(c) Initialize the database environment:

```
$ initdb
```

3. Start the PostgreSQL database server

```
$ pg_ctl -o "-c unix_socket_directories=/tmp/$LOGNAME/sockets"
-D $PGDATA -l /tmp/$LOGNAME/logfile start
```

4. Create your database (Replace \$DB\_NAME with your database name)

```
createdb -h /tmp/$LOGNAME/sockets $DB_NAME
```

5. Start the interactive environment

```
$ psql -h /tmp/$LOGNAME/sockets $DB_NAME
```

The Postgre prompt like “mydb=#” will show up to accept your SQL commands, where “mydb” is the database name you specified in \$DB\_NAME. Use “\q” to quit the interactive environment. You can also pipeline a SQL script into the interactive environment to execute it in bulk:

```
$ psql -h /tmp/$LOGNAME/sockets $DB_NAME < your_script.sql
```

6. SQL Administrator Cook List Show all databases in your Postgre instance:

```
mydb=# SELECT datname FROM pg_database;
```

Show all tables viewable to you:

```
mydb=# SELECT table_name
mydb=# FROM information_schema.tables
mydb=# WHERE table_schema='public ';
```

7. Stop the database instance

```
$ pg_ctl -o " c unix_socket_directories=/tmp/$LOGNAME/sockets"
-D /tmp/$LOGNAME/test/data stop
```