Instructions for using PostgreSQL

October 3, 2013

Connecting to PostgreSQL

PostgreSQL is running on database server database-180.soe.ucsc.edu. An individual PostgreSQL account has been created for each student with the following credentials:

Username: ⟨CruzID⟩
Password: ⟨CruzID⟩

For example, if your UCSC email address is john@ucsc.edu, then your PostgreSQL account has username john and password john.

In order to connect to the PostgreSQL server you need to do the following:

1. Connect to unix.ucsc.edu with your UCSC account
   To connect to unix.ucsc.edu you need an SSH client. The machines in the lab are running Windows. During the lab section you will be instructed how to connect to unix.ucsc.edu from the Windows machines using the SSH client installed in them. To connect remotely to unix.ucsc.edu, you can use any of the freely available SSH clients for your platform.

2. Connect to PostgreSQL with your personal account
   You will be working with PostgreSQL via a command line interface to PostgreSQL, called psql. Run the following command in the command line:

   psql -U username -h database-180.soe.ucsc.edu

   You will be asked for the password. After providing the password, the psql prompt should appear. You should see something similar to:

   [epema@unix1 ~]$ psql -U epema -h database-180.soe.ucsc.edu
   Password for user epema:
   psql (9.2.4)
   Type "help" for help.
   epema=#
A database has been created for each account. The name of this database is also your CruzID. When you connect with the `psql` command, you are connected automatically to this database. You should use this database as your working database throughout the course.

3. **Test your account**

Run the following commands to test that your account works fine (please do not forget the semicolons at the end):

- `create table tbl_test(A int, B varchar(10));`
- `insert into tbl_test values(1,'abc');`
- `select * from tbl_test;`
- `drop table tbl_test;`

The entire `psql` session should look similar to:

```
epema=# create table tbl_test(A int, B varchar(10));
CREATE TABLE
epema=# insert into tbl_test values(1,'abc');
INSERT 0 1
epema=# select * from tbl_test;
   a | b  
---+----
  1 | abc
(1 row)
epema=# drop table tbl_test;
DROP TABLE
epema=#
```

4. **Quit `psql` with the command `\q`**

5. **Change your password**

To change your password, connect to `psql` as explained above, and then run the command:

```
alter user CruzID with password 'newPassword';
```

**Recording the `psql` session**

It will be very handy during lab sections, but also necessary to submit solutions to lab assignments, that you record the entire `psql` session into a text file. You can do so by simply copying and pasting from the terminal to the file. A better alternative is to use the command line tool called `script` as follows.
To start recording your session:

    script scriptName.txt

Connect to psql and run all the commands you want.

To stop recording:

    exit

Submitting your lab assignments

The lab assignments should be submitted by running the following command at the Unix prompt:

    submit cmpl80-pk.f13 LA1 file1.txt file2.txt