Using The pi conga software on 12th December[1]

Purpose of the software.

The idea of this software has several aspects.

1. To enable students using the Raspberry Pis to join an event.
2. To generate a single set of Raspberry Pis joined in a single stream (conga) that will be a record.
3. To make the software sufficiently simple to enable students to edit the code.
4. To have some good Open source educational software that schools can use into the future.

Description of what the software does.

Out of the box the client software will do the following

1. Allow students to connect to a single world wide conga[2]
2. Send a ping round the conga
3. Send messages round the conga.

Installation and configuration of the client software

This is a reworking of part of the full piconga software wiki available here.

Install Overview

- You will need to install some requirements, the software itself and configure the software.
- You need to have root access to your pi, possibly by use of `sudo`.
- The software actually includes the server and client software in a single directory, you only need to configure the client software to get something working.

Requirements

You need to have the "`pythons setup tools`", "`pip`" and "`requests`" installed.

```
sudo apt-get install python-setuptools
sudo easy_install pip
sudo pip install requests
```

Then you need to install the client software.

---

[1] There will be enhancements/fixes going on up to the Monday. You might want to upgrade the cong software fairly late on.

[2] That is the situation now (4-12-13) however we will have to decide whether to have this available on 12/12/13.

Got to users home directory `cd ~`

Make a directory/folder `mkdir piconga`

Get the software `git clone https://github.com/neilcollins/piconga.git`

Configure the software.

You need to use a text editor. My raspberry pi has 'nano' already installed which is easy to use.

Go to the client folder `cd ~/piconga/client/`

Edit the files to connect to the EC2 server `nano ./client.py`

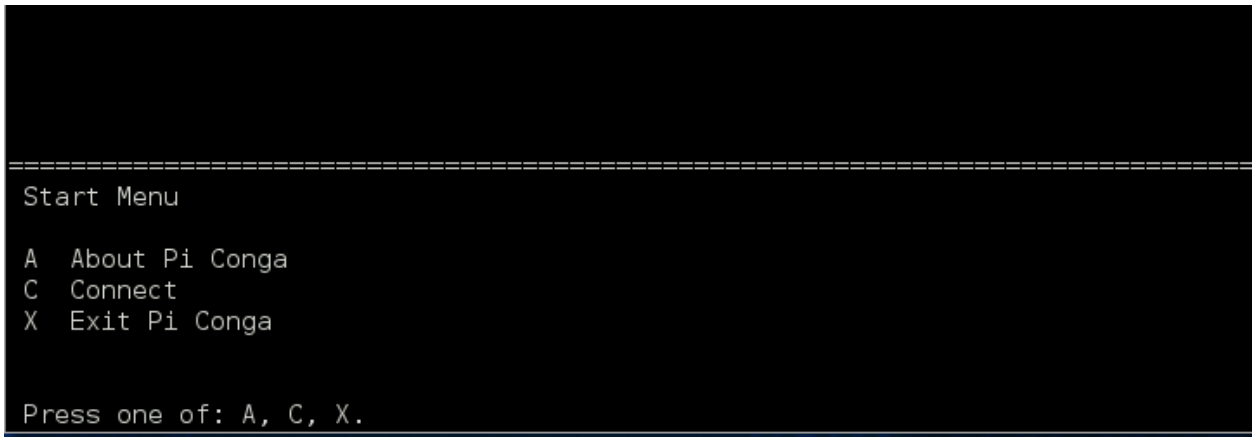
look for the section below and make it look the same as I have it here.

```
# Class constants.
base_url = "http://ec2-54-229-169-49.eu-west-1.compute.amazonaws.com/conga"
#base_url = "http://192.168.2.10:8000/conga"
tornado_server_ip = "ec2-54-229-169-49.eu-west-1.compute.amazonaws.com"
#tornado_server_ip = "192.168.2.10"
tornado_server_port = 8888
```

You should be good to go as follows.

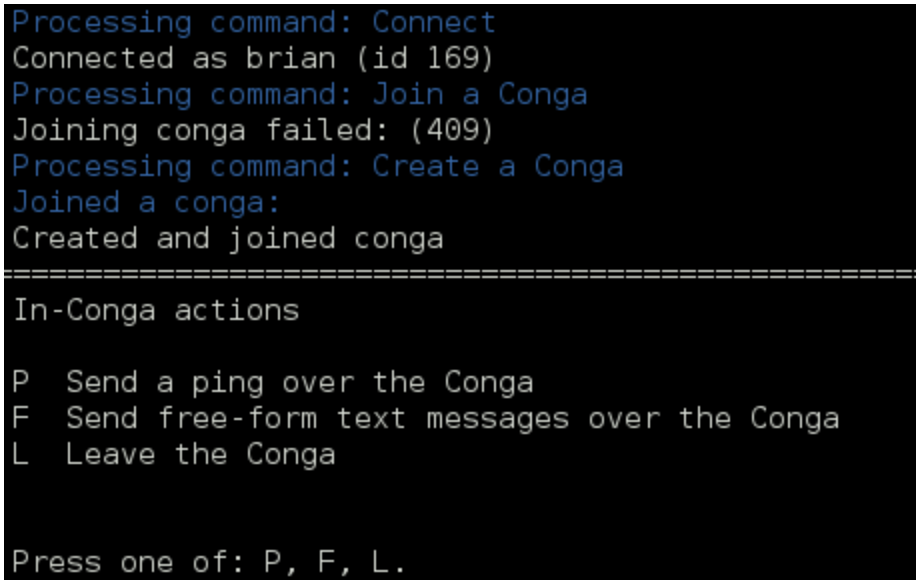
Run the client by going `python client.py`

Enter a username and password when requested and press return.



Press C to connect

C to create and Join a conga or J to just Join.
There is only one conga on a server and so the first one in on the server will create it. This is the situation with the software downloaded up to 4/12/2013. The first user has to press C or get an error message (as in screenshot). Anyone else will find they can only Join



Now you can send a Ping, Freeform text or Leave the conga. That, is what you can do so far. However, once everyone has had a play with this they can try and change some aspect of what the software does by editing the code in the Python source. See here for suggestions of what you might try to do.