**Title: Setting Up Hydroshare Client**

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**OS: Ubuntu 16.10**

**Setup:**

To get started on being able to ping two different virtual machines with VirtualBox then go ahead and download the latest version from this url: <https://www.virtualbox.org/wiki/Downloads> . Make sure that everything has been downloaded correctly. For this tutorial, I will be using a Windows host machine with enough resources for two virtual machines. The first machine will be named master1 and the second will be master2. Each will have 10 GB in storage and 2 GB in RAM. Do the following:

* Go to settings->General->Advanced
  + And change the Shared Clipboard to: Bidirectional
  + And change Drag’n’Drop to: Bidirectional
* Go to settings->System
  + Uncheck the floppy and move it down below hard disk.
* Go to settings->System->Processor
  + Make sure that the Enable PAE/NX is unchecked.
* Go to settings->Storage
  + Click the cd under Controller: IDE, and on the far right click the other cd and pick your virtual optical disk drive. This is where you can add your OS image.
* Go to settings->Network
  + Go to Adapter 2, click the checkbox next “Enable Network Adapter”.
  + Next switch the Attached to from Not Attached to Host-Only Adapter.
  + Next, change the Promiscuous Mode under the Advanced settings to Allow VMs.
  + Then click the “ok” button at the bottom.

**Part 1:**

* Type: sudo apt-get update
* Type: sudo apt-get –y upgrade
* Type: sudo apt-get install –y python3-pip
* Type: sudo apt-get install build-essential libssl-dev libffi-dev-python-dev
* Type: sudo apt-get install python3-venv
* Type: cd ~
* Type: mkdir environments
* Type: python3 -m vent my\_env
* Type: cd ~/environments/my\_env
* Type: source my\_env/bin/activate
* Type: git clone <https://www.github.com/hydroshare/hs_restclient.git>
* Type: cd hydroshare
* Type: python setup.py develop

**Part 2:**

* Use the following website to be able to connect to a hydroshare server and pull resources. Pick the correct one that best fits your application.
  + <http://hs-restclient.readthedocs.io/en/latest/#usage>
* The best way to test if one of these functions are working is to install ipython in you environment and it things are connected correctly then you should see the resources being downloaded.

**Overview:**

* At this point you should be able to connect to the server and pull the resources to your machine. I have not looked into what happens when you pull the resources (where are they being downloaded). If you are having connecting issues make sure that your network devices are up, and try pinging each machines’ IP address.

**URLs:**

URLs:

* <http://hs-restclient.readthedocs.io/en/latest/#usage>
* <https://www.digitalocean.com/community/tutorials/how-to-install-python-3-and-set-up-a-local-programming-environment-on-ubuntu-16-04>
* <https://github.com/hydroshare/hydroshare-demo-auth/blob/master/README.md>