Using Atmosphere

Setup of Instance

This will give you step-by-step instructions for starting an Atmosphere instance with the kaldi_instructional resources already loaded.

Go to the cyverse login: https://user.cyverse.org/services/mine and, after logging in, click `LAUNCH` on `Atmosphere`.

You'll arrive at your `Dashboard`. Here you can see information about your allocations (how much you are using and how much you "have left"). Select `Launch New Instance`.

Enter `kaldi` into the `Image Search`, and select the `kaldi_instructional_2017` image.

You'll see some details about this image. In the upper right, select `Launch`.

You'll now be asked to set up the instance. a. Give an `Instance Name`. b. Keep `Base Image Version` at `1.0`. c. You may need to name the `Project` (*e.g.* the collection of images and volumes). d. Select your `Instance Size`. The code has been built under the assumption that you will be using `medium2`. No guarantees can be made that anything smaller will work. And while you're welcome to choose a larger instance, know that your `Allocation Units` are calculated based on the number of `CPU`s you are running, so you will likely need to `Shutdown` your instance when it's not in use to ensure you don't run our of monthly `Allocation Units`.

Click `Launch Instance`.

When your instance is built, you will see it shown with a `Status` of `Active`. You'll also see an `IP Address` to access the instance.

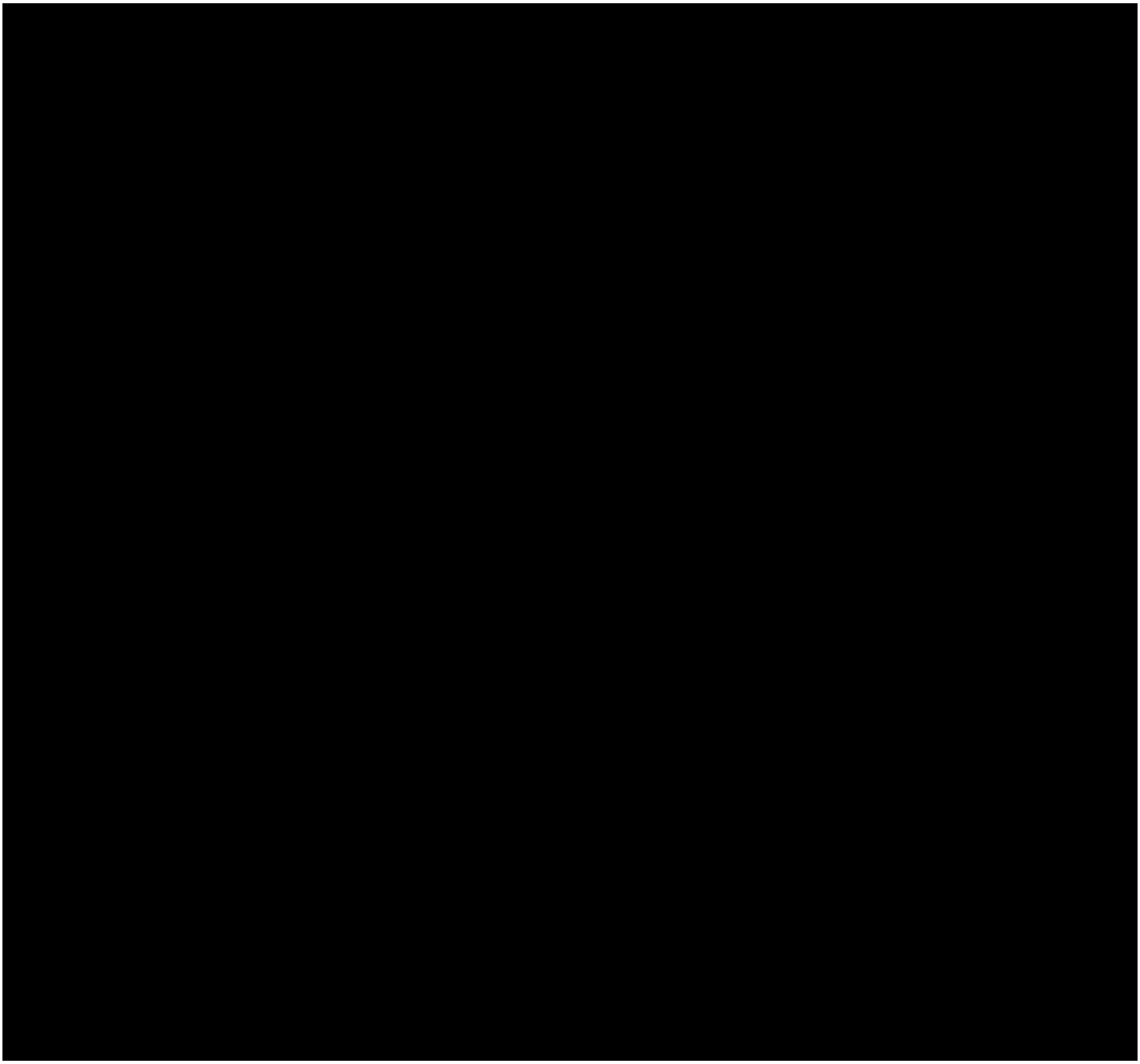
Setup of Volume (optional)

It's also recommended that you add a `Volume` (*e.g.* external storage drive that is *separate* from your instance) so that you can occasionally backup the files you build throughout the course. In case of a problem with your instance, you can always start a new instance and transfer those files from

the volume. Click `New-Volume`.

You'll now set up the volume. a. Give a `Volume Name`. b. Select the `Volume Size`. `100GB` should be plenty of space, but you are free to choose whatever size fits your needs and current allocations.

Click `Create Volume`



You will see that its `Status` is `Unattached`. Click on the volume link.

Click `Attach`.

You'll be asked to select an instance to attach it to.

Now when you return to your `Project`, you'll see that the `Status` of your volume is `Attached to [instance_name]`.

The volume will be mounted at `/vol_c/` in your instance.

Accessing Instance

You can now access your image by `ssh`ing into it with the following command:

```
ssh [your_cyverse_id]@[instance_ip]
```

For example:

```
ssh mcapizzi@123.145.125.53
```

However, **if you intend to utilize `jupyter`**, you will need to use the following command:

```
ssh -L [port]:localhost:[port] [your_cyverse_id]@[instance_ip
```

The *default* port that is used by our scripts is `8880`, and unless you have a reason to change it, that should be used for simplicity.

The command will then look like:

```
ssh -L 8880:localhost:8880 mcapizzi@123.145.125.53
```

If you **do not** add the `-L` argument, you will still be able to access your instance but **not** `jupyter`