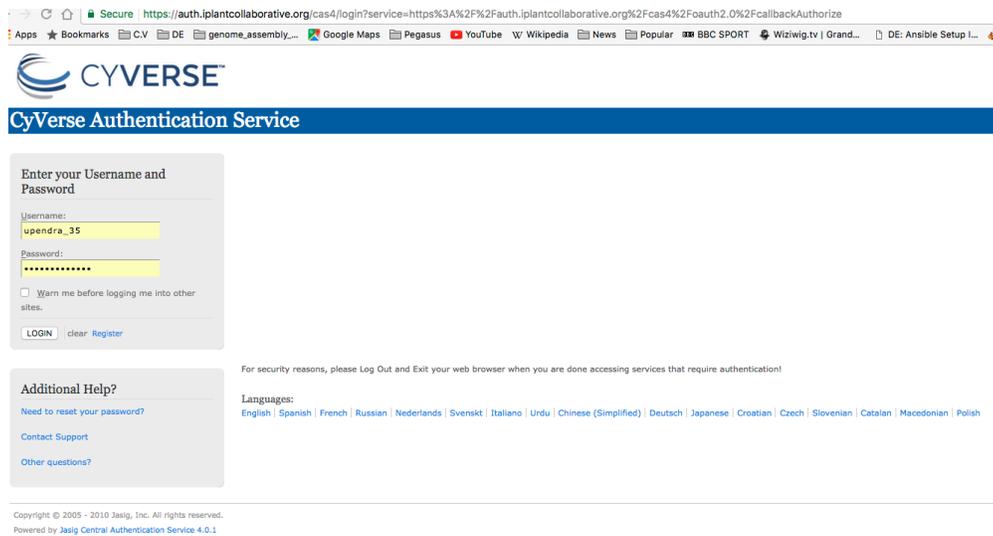


Qiime2 2018.4

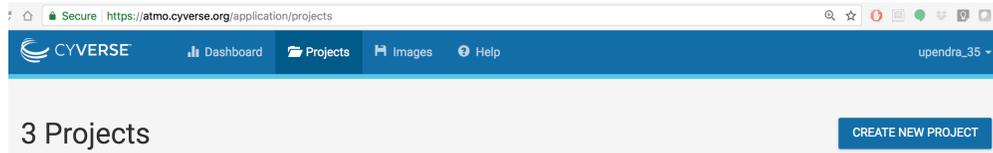
Part 1: Connect to a Qiime-2-Jupyter-notebook Atmosphere Image (Virtual Machine)

Step 1. Go to <https://atmo.cyverse.org> and log in with your CyVerse credentials



The screenshot shows the CyVerse Authentication Service login page. The browser address bar displays a URL from the plantcollaborative.org CAS4 service. The page header includes the CyVerse logo and the text "CyVerse Authentication Service". The main content area is titled "Enter your Username and Password" and contains a login form with fields for "Username:" (containing "upendra_35") and "Password:" (masked with dots). There is a checkbox for "Remember me before logging me into other sites." and buttons for "LOGIN", "clear", and "Register". Below the form is a section for "Additional Help?" with links for "Need to reset your password?", "Contact Support", and "Other questions?". A "Languages:" section lists various languages including English, Spanish, French, Russian, Nederlands, Svenska, Italiano, Urdu, Chinese (Simplified), Deutsch, Japanese, Croatian, Czech, Slovenian, Catalan, Macedonian, and Polish. At the bottom, there is a copyright notice for 2005-2010 Jaisig, Inc. and a note that the page is powered by Jaisig Central Authentication Service 4.0.1.

Step 2. Create a project and name the project name as **QIIME2 2018.4** and description as **QIIME2 2018.4**



The screenshot shows the CyVerse application/projects page. The browser address bar displays the URL "https://atmo.cyverse.org/application/projects". The page header includes the CyVerse logo and navigation links for "Dashboard", "Projects", "Images", and "Help". The user's name "upendra_35" is displayed in the top right corner. The main content area shows "3 Projects" and a "CREATE NEW PROJECT" button.

Create Project ✕

Project Name

Description

Step 3. Click the project and then Select the image **Qiime2-jupyter-notebook** and click **Launch Instance**. It will take ~10-15 minutes for the cloud instance to be launched.

The screenshot shows the CyVerse web interface. The browser address bar displays "Secure https://atmo.cyverse.org/application/projects/6736/resources#". The navigation bar includes "CYVERSE", "Dashboard", "Projects", "Images", and "Help". The user's name "upendra_35" is visible in the top right. Below the navigation bar, there are tabs for "RESOURCES" and "DETAILS", and an "OPTIONS" menu. The main content area is titled "Qiime2 2018.4". A "NEW" button is highlighted with a red circle, and a dropdown menu is open showing "Instance", "Volume", and "Link" options. Below the dropdown, there is a table with columns: "Status", "Activity", "IP Address", "Size", and "Provider".

Launch an Instance / Select an Image



First choose an image for your instance

Show Featured Show Favorites **Show All**

Qiime2 2018.4

Showing 1 image(s) for "Qiime2 2018.4"



Qiime2 2018.4 -
Jupyter Notebook
May 12, 2018 07:26
am by upendra_35

QIIME allows analysis of high-throughput
community sequencing data

Metagenomics NGS QIIME

Advanced Options

CANCEL

LAUNCH INSTANCE

Launch an Instance / Basic Options



Basic Info

Instance Name

Qiime2 2018.4 - instance

Base Image Version

1.0

Project

Qiime2 2018.4

Resources

Allocation Source

upendra_35

Provider

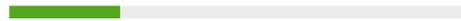
CyVerse Cloud - Marana

Instance Size

medium1 (CPU: 4, Mem: 8 GB, Disk: 80 GB)

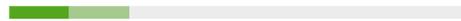
Allocation Used

24% of 1168 AUs from upendra_35

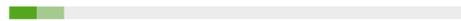


Resources Instance will Use

A total 8 of 32 allotted CPUs



A total 16 of 128 allotted GBs of Memory



Back

Advanced Options

CANCEL

LAUNCH INSTANCE

Note: Instances can be configured for different amounts of CPU, memory, and storage depending on user needs. This tutorial can be accomplished with the small instance size, **medium1 (4 CPUs, 8 GB memory, 80 GB root)**

Step 4. Once the VM is ready. Click the VM which will take onto next screen where you can launch web shell

The screenshot shows the CyVerse web interface for a QIIME2 2018.4 instance. The instance is active and has an IP address of 128.196.142.34. The allocation source is 'upendra_35'. The instance details show it is based on 'QIIME2 2018.4 - Jupyter Notebook v1.0'. A red arrow points to the 'Open Old Web Shell' link in the 'Links' section.

Step 5: Depending on how you've installed Docker on your system, you might see a `permission denied` error after running the above command. If you're on Linux, you may need to prefix your Docker commands with `sudo`. Alternatively to run docker command without `sudo`, you need to run the following

```
upendra_35@vm142-34:~$ sudo usermod -aG docker $USER
upendra_35@vm142-34:~$ exit
```

Close the terminal and log-in again.

Part 2: Running QIIME-2 2018.4 on the command line

```
$ alias qiime='docker run -t -i -v $(pwd):/data qiime2/core:2018.4 qiime'
$ qiime --version
q2cli version 2018.4.0
Run `qiime info` for more version details.
```

Part 3: Running QIIME-2 2018.4 Jupyter notebook

```

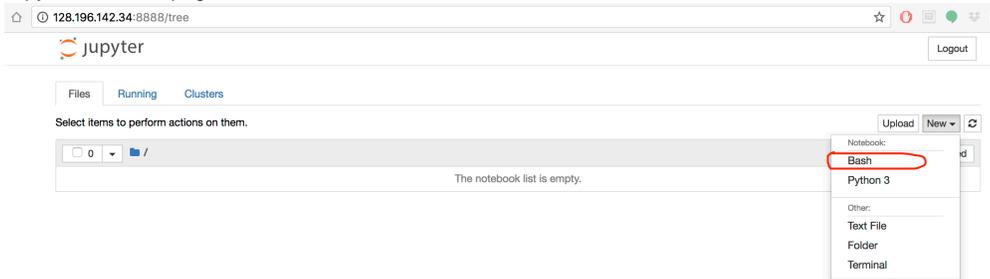
upendra_35@vm142-34:~$ ezj
/usr/bin/python3
DEBUG: using python version 3
DEBUG: downloading anaconda binary, may take a few minutes
DEBUG: Anaconda already installed to /opt/anaconda3
/opt/anaconda3/bin/python3
DEBUG: using python version 3
[I 08:20:25.161 NotebookApp] JupyterLab beta preview extension loaded from
/opt/anaconda3/lib/python3.6/site-packages/jupyterlab
[I 08:20:25.161 NotebookApp] JupyterLab application directory is
/opt/anaconda3/share/jupyter/lab
[I 08:20:25.167 NotebookApp] Serving notebooks from local directory: /home/upendra_35
[I 08:20:25.167 NotebookApp] 0 active kernels
[I 08:20:25.167 NotebookApp] The Jupyter Notebook is running at:
[I 08:20:25.167 NotebookApp]
http://128.196.142.34:8888/?token=3e13e7c44c7ea797fd064ee3e4cc1fc88d8929f0ca48c541
[I 08:20:25.167 NotebookApp] Use Control-C to stop this server and shut down all
kernels (twice to skip confirmation).
[C 08:20:25.168 NotebookApp]

```

Copy/paste this URL into your browser when you connect for the first time, to login with a token:

<http://128.196.142.34:8888/?token=3e13e7c44c7ea797fd064ee3e4cc1fc88d8929f0ca48c541>

Step 1. Copy/paste the above URL into your browser when you connect for the first time. Click the New tab and then **bash** kernel to launch new Jupyter notebook page



Step 2. Now you can copy and paste the commands from the below notebook to run Qiime2 moving sample tutorial. Here is an example..

