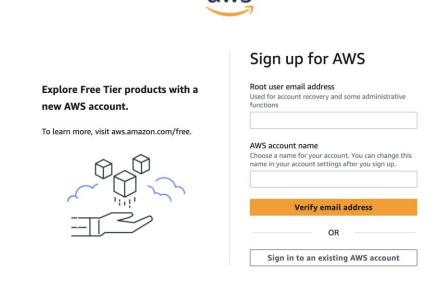
Draft a document detailing instruction for how to fulling install our Omeka setup

Cover the following:

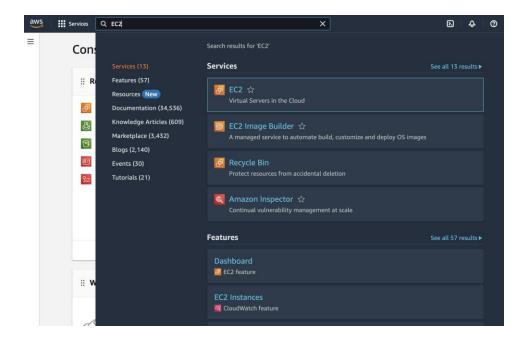
- Creating EC2 instance sharepoint (but it is for downloading omeka-s) so do until EC2 instance
- Installing LAMP github
- Installing Omeka
- Installing the Module
- Importing using the module Use screenshots for clarity

Launch EC2 Instance

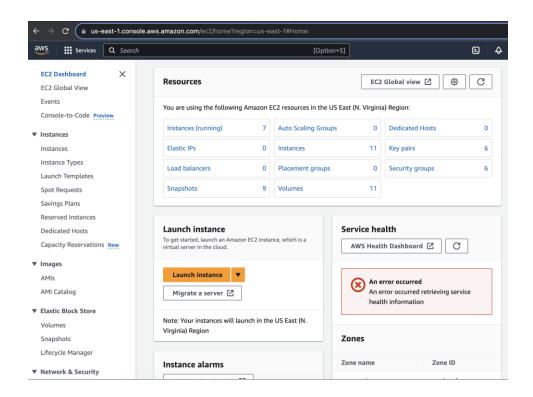
1. Create an amazon web server account at <u>aws.amazon.com</u> or <u>signup page</u>.



2. After setup, use the search box to find the link to EC2 (Virtual Servers in the Cloud) and click on it.

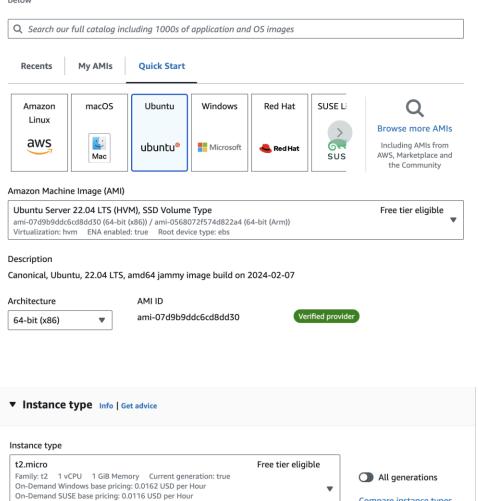


3. Scroll down and click on the Launch Instance button.



4. Name your instance anything you'd like, then under "Application and OS Images (Amazon Machine Image)" select "Ubuntu Server 22.04 LTS (HVM), SSD Volume Type" as your Amazon Machine Image (AMI). Under Instance type choose "t2.micro".

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

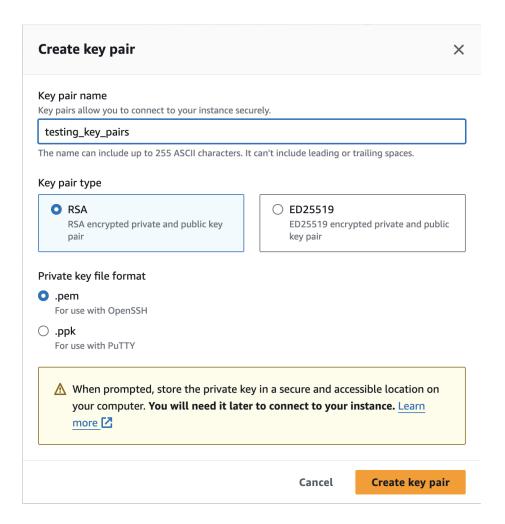


On-Demand RHEL base pricing: 0.0716 USD per Hour On-Demand Linux base pricing: 0.0116 USD per Hour

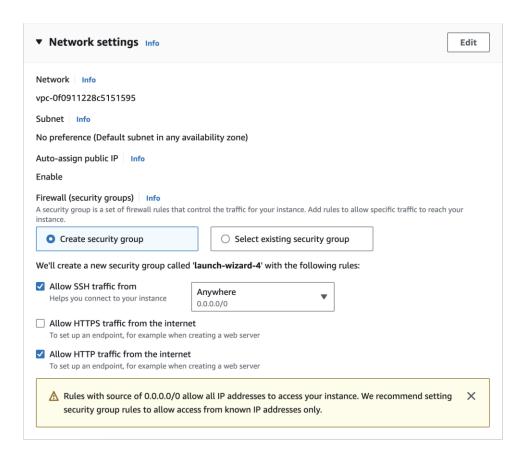
Additional costs apply for AMIs with pre-installed software

5. Under Key pair click "Create new key pair". Name it anything you'd like, ideally without spaces, and keep the default RSA and .pem settings. After clicking "Create key pair" a .pem file will download. We'll be moving this file elsewhere later.

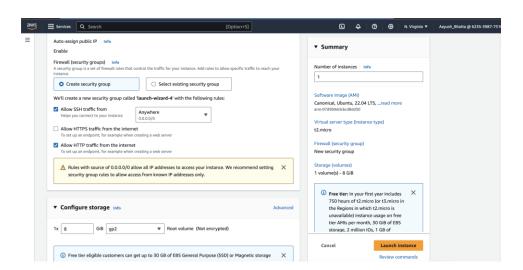
Compare instance types



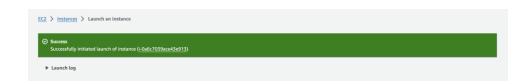
6. Under Network Settings, choose "Create security group", then select "Allow SSH traffic from" and "Allow HTTP traffic from the internet".



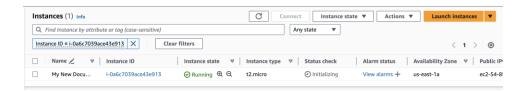
7. Review your selections then click "Launch Instance"



8. After launching the instance, you will see something like this in the screen.



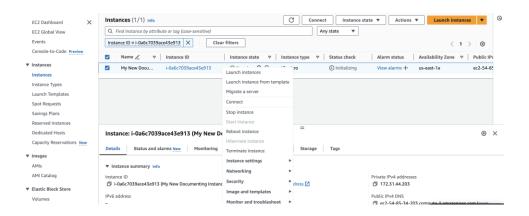
9. Click on the link attached with the **instance id** (i-0a6c7039ace43e913 in this case) that you can see after "Successfully initiated launch of instance" and it will take you to the screen like below:



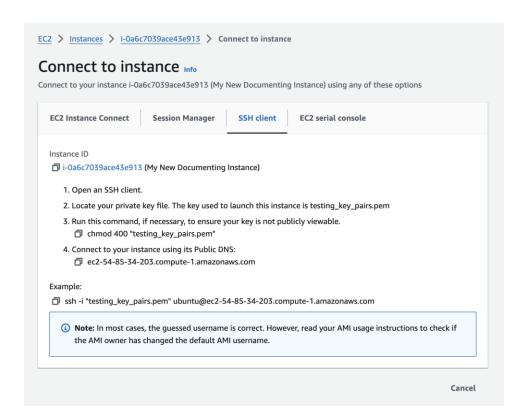
OR you can click on the link attached with "Instances" keyword in the top left corner after "EC2 >" that can be seen as "EC2 > Instances > Launch an instance" and after that you can see many instances if there are others along with the instance you recently created like below:



10. After you see your instance either way, on the subsequent panel, RIGHT click on instance we created and select 'Connect'.



11. Select "SSH Client" and keep this window open for later.



12. Open the terminal on your local device (Applications/Utilities/Terminal for OS X users) *Note that your color scheme may vary from these screenshots.

Change directories to the current user's home directory:

```
cd ~ls
```

Check if there is an existing .ssh directory:

```
ls -a
aayushbhatta@administrators-MacBook-Pro ~ % ls -a
                         .lesshst
                                                 Documents
                         .mysql_history
                                                 Downloads
.CFUserTextEncoding
                        .npm
                                                 Library
.DS_Store
                        .vscode
                                                 Movies
.Trash
                        .zprofile
                                                 Music
.bash_history
                        .zsh_history
                                                 Pictures
.composer
                        .zsh_sessions
                                                 Public
.gitconfig
                        Desktop
aayushbhatta@administrators-MacBook-Pro ~ %
```

If there is no such directory, create a new directory called .ssh:

mkdir -p ~/.ssh

```
aayushbhatta@administrators-MacBook-Pro ~ % mkdir -p ~/.ssh
aayushbhatta@administrators-MacBook-Pro ~ % ls -a
                         .lesshst
                                                 Desktop
                        .mysql_history
                                                 Documents
.CFUserTextEncoding
                                                 Downloads
                         .npm
.DS_Store
                                                 Library
                         .ssh
                                                 Movies
.Trash
                         .vscode
.bash_history
                         .zprofile
                                                 Music
.composer
                         .zsh_history
                                                 Pictures
.gitconfig
                         .zsh_sessions
                                                 Public
aayushbhatta@administrators-MacBook-Pro ~ %
```

Here you can see .ssh folder.

13. Move the .pem file earlier downloaded from AWS, out of the Downloads folder and into the .ssh directory:

```
mv ~/Downloads/[YourKeyPairName].pem ~/.ssh
```

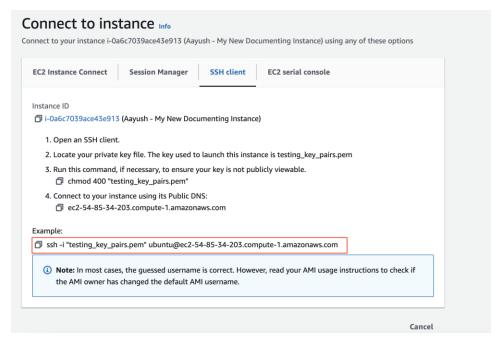
*Note: YourKeyPairName.pem is what you generated in Amazon EC2 in step 4.

```
aayushbhatta@administrators-MacBook-Pro ~ % mv ~/Downloads/testing_key_pairs.pem ~/.ssh
```

14. Enter and run the following command. This gives read permissions to owner and no permissions to others and group for all .pem files in the .ssh directory:

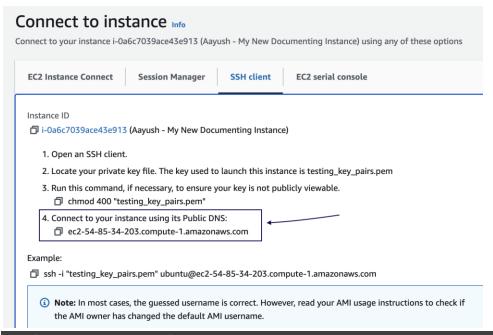
chmod 400 ~/.ssh/*.pem

15. Back in the "Connect to instance" browser window we left open in step 11, you will find an example ssh command. After confirming you are in your .ssh directory in the terminal, run your example ssh command provided in AWS in your terminal. If prompted, type 'yes'. If you receive "Welcome to Ubuntu 22.04.3", congratulations, you are now remotely accessing your AWS server instance! Please proceed to step 17 by skipping 16.



aayushbhatta@administrators-MacBook-Pro .ssh % ssh -i "testing_key_pairs.pem" ubuntu@ec2-54-85-34-203.compute-1.amazonaws.com Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-aws x86_64)

16. If for some reason the command does not work or there is an error, return to the Connect to instance" browser window we left open in step 11, you will find your Public DNS. You'll need this to connect to your EC2 instance from the terminal. Follow the formula below for the command, ensuring your pwd is Users/[yourUsername]/.ssh meaning you are in .ssh directory.



ssh -i "YourKeyPairName.pem " ubuntu@YourPublicDNS

*Note: You must be in the .ssh directory for this command to work as this command assumes the .pem file is local.

Configure Ubuntu for Omeka-S

17. Update Ubuntu libraries. This command will generate a wall of text.

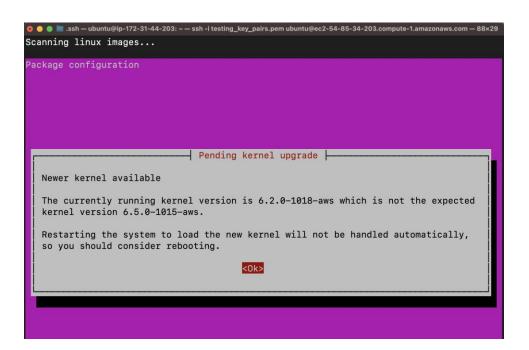
sudo apt-get update

```
ubuntu@ip-172-31-44-203:-$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Fetched 229 kB in 1s (329 kB/s)
Reading package lists... Done
```

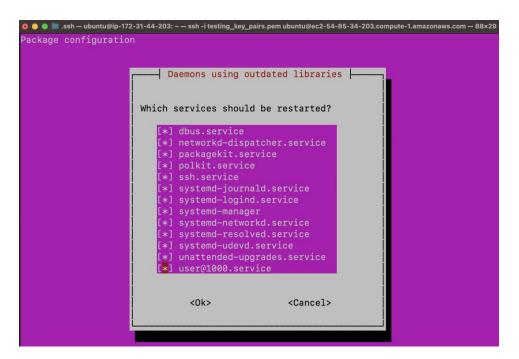
18. Upgrade Ubuntu, type "Yes" or "Y" if prompted, and use the spacebar to select all the options if prompted "Which services should be restarted?", then hit return/enter. If you don't get any issues, then go to step 19 after this.

sudo apt-get upgrade

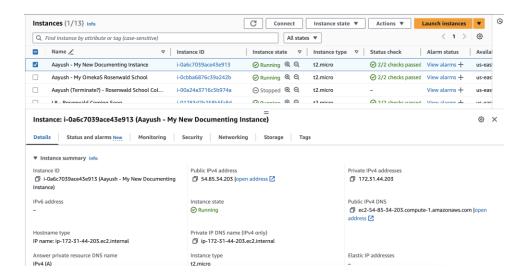
However, just in case you get something like below in your terminal, then you should reboot your instance. But before that select enter / return.



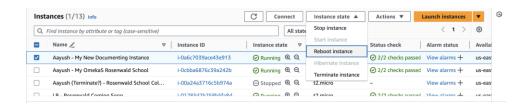
After you return / enter, if you get the page like below in the terminal select all the options that you can see using "space" and use dropdown to go to other options and select enter/return after selecting everything like below.



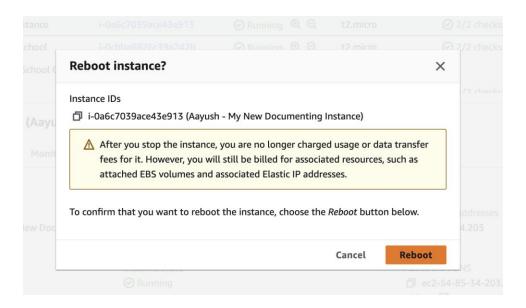
After doing this go back to your instance in AWS and select the instance that you are working with.



After doing that select on "Instance state" button and select "Reboot instance".



Then select "Reboot".



Then come back to the terminal and select up arrow or copy and paste the code from step 15 from AWS again and hit enter / return.

```
aayushbhatta@administrators-MacBook-Pro .ssh % ssh -i "testing_key_pairs.pem" ubuntu@ec2
-54-85-34-203.compute-1.amazonaws.com
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1015-aws x86_64)
```

After that run both the commands on ubuntu again that you ran at the beginning of step 17 and step 18.

```
[ubuntu@ip-172-31-44-203:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
[ubuntu@ip-172-31-44-203:~$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages have been kept back:
    ubuntu-advantage-tools ubuntu-pro-client-l10n
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
```

19. Installing Server Packages

After the server is up and running, we need to get the components that are needed to run a web server installed. I'll use short-hand here to install a bunch of packages (and their dependencies). Then tell the Apache daemon to enable the mod_rewrite module that Omeka-S uses to make "pretty" URLs.

*Note: When logging onto the AWS server, you may be put into the ubuntu directory. You need to get to the main directory. Change the directory and verify by listing the files in that directory.

```
cd /

Is

ubuntu@ip-172-31-44-203:~$ cd /
ubuntu@ip-172-31-44-203:/$ ls

bin dev home lib32 libx32 media opt root sbin srv tmp var
boot etc lib lib64 lost+found mnt proc run snap sys usr
```

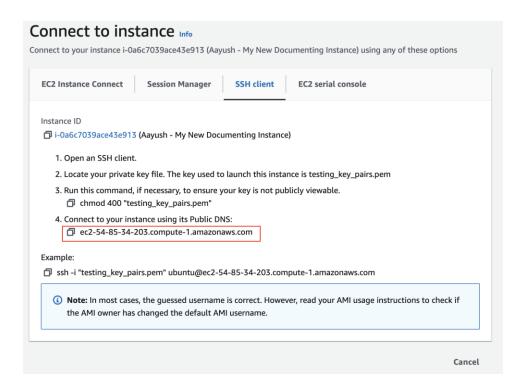
sudo apt-get -y install apache2 php php-xsl php-mysql php-curl php-mbstring wget mysql-server zip imagemagick sendmail

sudo a2enmod rewrite

As you can see in the terminal, to activate the new configuration, you need to run:

sudo systemctl restart apache2

Confirm the web server is running by visiting your Public DNS in your browser. Your Public DNS can be found if you return to the "Connect to instance" browser window we left open in step 11. There you will find your Public DNS, paste it into your browser. You should see a page in the browser that says, "It Works!".





Configure MySQL

20. Start by logging in to MySQL. By default, the 'sudo' command authenticates your Ubuntu MySQL installation, so a password is not needed. When prompted to enter a password, simply hit return/enter. If not, you don't need to enter any password.

sudo mysql -u root -p:

```
ubuntu@ip-172-31-44-203:/$ sudo mysql -u root -p:
mysql: [Warning] Using a password on the command line interf<u>ace can be insecure.</u>
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.36-0ubuntu0.22.04.1 (Ubuntu)
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>
ubuntu@ip-172-31-44-203:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \glack
Your MySQL connection id is 12
Server version: 8.0.36-Oubuntu0.22.04.1 (Ubuntu)
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
Type 'help;' or 'h' for help. Type 'c' to clear the current input statement.
```

Now let's create a database for Omeka-S, set a password for a newly created user, and give that user permission to the new database.

Replace "YourDatabaseName" with the database name of your choosing, "new_user" with the username of your choosing and "YourNewPassword" with the password of your choosing. Be sure to store the new username and password in a secure location for use in a couple steps.

```
CREATE DATABASE YourDatabaseName;
CREATE USER 'new_user'@'localhost' IDENTIFIED BY 'YourNewPassword';
GRANT ALL PRIVILEGES on YourDatabaseName.* to 'new_user'@localhost;
FLUSH PRIVILEGES;
Exit;
```

Exit MYSQL by writing "exit" and hit enter / return.

```
lmysql> exit
Bye
```

Download and Configure Omeka-S

21. The default location for the web applications for Apache2 is /var/www/. For the purposes of this tutorial, we'll download the Omeka-S application then my the files to /var/www/.

Assuming you're still logged on to your server, you will need to issue the following commands to download Omeka-S:

```
cd /tmp

git clone https://github.com/omeka/omeka-s.git

sudo mv omeka-s /var/www/html

sudo chmod -R 777 /var/www/html/omeka-s/files

sudo service apache2 restart
```

Now that the database is set up, we need to let Omeka-S know where to go to connect to the database.

22. You will now need the database name, username and password you set in MySQL a couple steps ago. Let's open the Omeka-S database.ini file in a terminal text editor:

cd /var/www/html/omeka-s/config sudo nano database.ini If database.ini is empty for you then feel free to use this: user = "" password = "" dbname = "" host = "" :port =

:unix_socket = :log_path =

Now, using the arrow keys to navigate, populate the MySQL user, password and dbname you chose. For host, type "localhost".

```
ONU nano 6.2 database.ini *

user = "rosenwald_fund"

password = ""

dbname = "for_documentation"

host = "localhost"

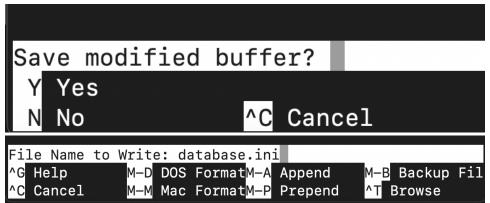
:port =

:unix_socket =

:log_path =
```

Exit nano by holding the 'control' and 'X' keys simutaniously.

When prompted "Save modified buffer?" type "Y" then hit the enter Key to save the filename.



Now restart Apache

sudo service apache2 restart

23. Next, we'll set AllowOverride to 'All':

sudo nano /etc/apache2/apache2.conf

Scroll down until you see "<Directory /var/www/>", and where it says "AllowOverride None", change it to "AllowOverride All". If you have a mac, you can type "ctrl + w" and type "/var/www/" so you will find the specific place fast otherwise you can use keys to move around and find the specific place.

```
<Directory /var/www/>
          Options Indexes FollowSymLinks
          AllowOverride None
          Require all granted
</Directory>
```

```
<Directory /var/www/>
          Options Indexes FollowSymLinks
          AllowOverride All
          Require all granted
</Directory>
```

Then, hit "ctrl + x" and type "Y" and hit enter / return.

Now restart Apache

sudo service apache2 restart

24. In your browser navigate to http://yourPublicDNS/omeka-s and congratulations, you should be ready to install.