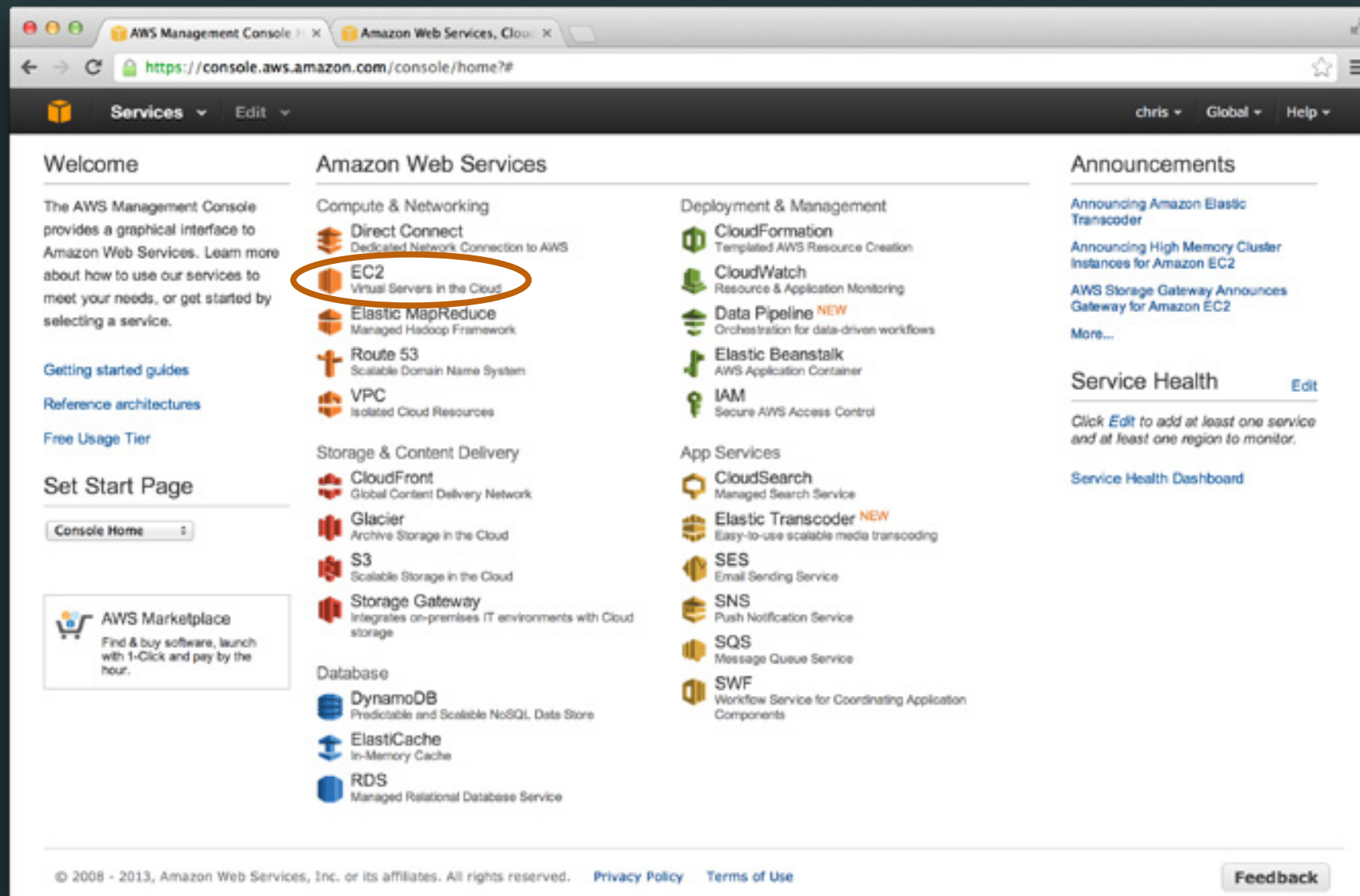


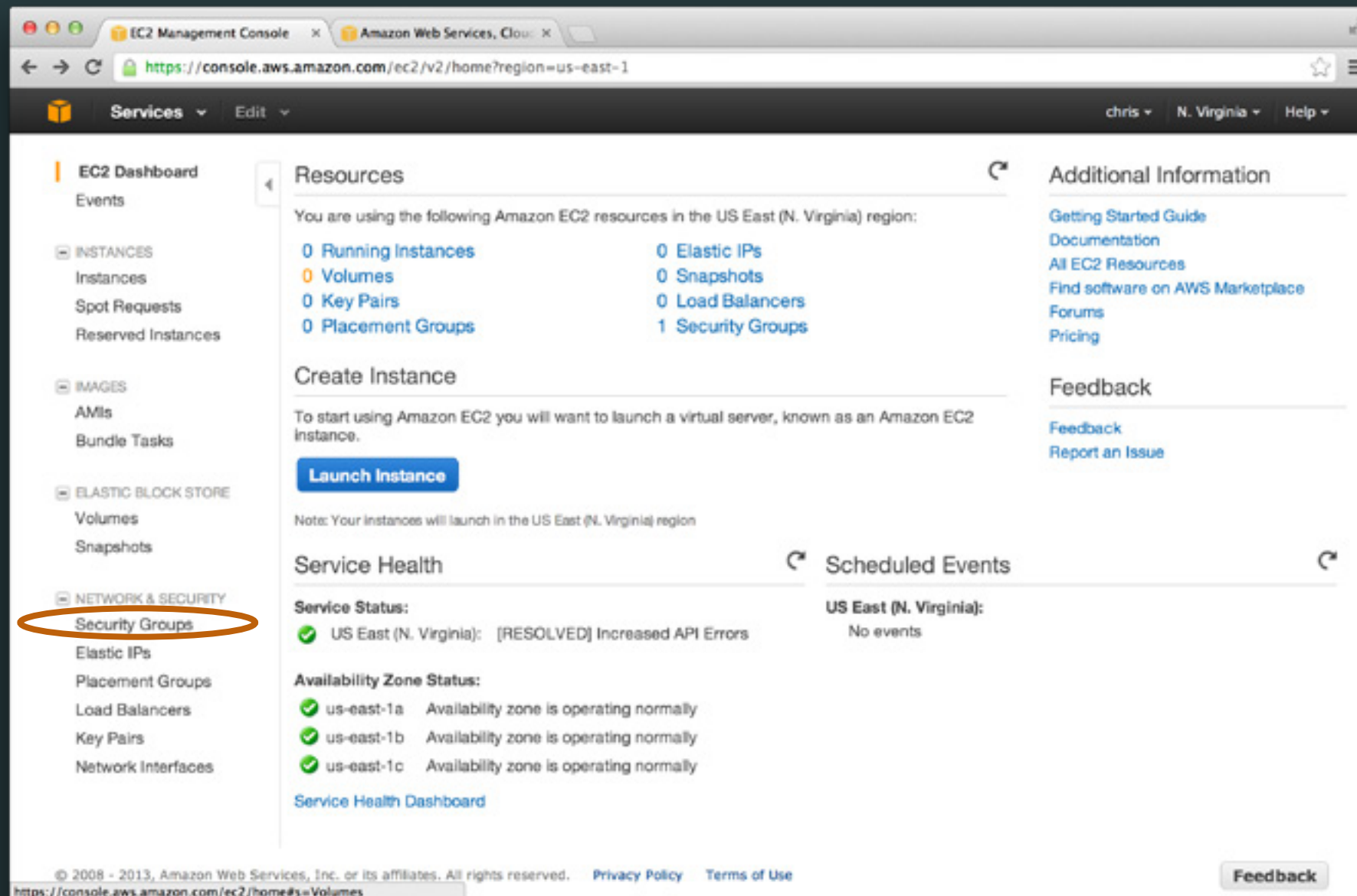
## **STEP 1**

Sign up for Amazon AWS

[aws.amazon.com](https://aws.amazon.com)



**STEP 2**  
Click E2C



## STEP 3

# Security Groups

Wait. What's a Security Group?

The screenshot shows the AWS Management Console interface for the EC2 Management Console. The left sidebar contains navigation links for EC2 Dashboard, INSTANCES, IMAGES, ELASTIC BLOCK STORE, and NETWORK & SECURITY. The main content area displays the 'Create Security Group' and 'Delete' buttons at the top. Below, a table lists existing security groups: 'default' and 'Basic\_Group'. The 'Basic\_Group' is selected, and its details are shown in the 'Inbound' tab. A table of inbound rules is visible, listing ports and services for SSH, HTTP, POP3, IMAP, and HTTPS, all with a source of 0.0.0.0/0. An orange circle highlights the 'Inbound' tab and the rule table.

EC2 Management Console | Amazon Web Services, Cloud

Services | Edit | chris | N. Virginia | Help

EC2 Dashboard  
Events

INSTANCES  
Instances  
Spot Requests  
Reserved Instances

IMAGES  
AMIs  
Bundle Tasks

ELASTIC BLOCK STORE  
Volumes  
Snapshots

NETWORK & SECURITY  
Security Groups  
Elastic IPs  
Placement Groups  
Load Balancers  
Key Pairs  
Network Interfaces

Create Security Group | Delete

Viewing: EC2 Security Groups | Search

1 to 2 of 2 items

| Name        | VPC ID | Description              |
|-------------|--------|--------------------------|
| default     |        | default group            |
| Basic_Group |        | SSH HTTP POP3 IMAP HTTPS |

1 Security Group selected

Security Group: Basic\_Group

Details | Inbound

Create a new rule: Custom TCP rule

Port range: (e.g., 80 or 49152-65535)

Source: 0.0.0.0/0 (e.g., 192.168.2.0/24, sg-47ad482e, or 1234567890/default)

Add Rule

Apply Rule Changes

| TCP Port (Service) | Source    | Action |
|--------------------|-----------|--------|
| 22 (SSH)           | 0.0.0.0/0 | Delete |
| 80 (HTTP)          | 0.0.0.0/0 | Delete |
| 110 (POP3)         | 0.0.0.0/0 | Delete |
| 143 (IMAP)         | 0.0.0.0/0 | Delete |
| 443 (HTTPS)        | 0.0.0.0/0 | Delete |
| 30000              | 0.0.0.0/0 | Delete |

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**STEP 4**  
Make a group as such

**Make sure to click 'Apply Rule Changes'**

## **STEP 6**

Click Instances

# STEP....

## Launch Instance

- Launch Instance by clicking... You guessed it.
- Select Classic Wizard & Continue it.
- Select Ubuntu Server 12.04.1 LTS, 64-bit (my preference)
- Create a new 'key pair' - Name it anything and download it
- Select your 'Security Group'



EC2 Management Console | Amazon Web Services, Cloud

https://console.aws.amazon.com/ec2/home?region=us-east-1#s=Instances

Services | Edit | chris | N. Virginia | Help

EC2 Dashboard  
Events

INSTANCES

- Instances
- Spot Requests
- Reserved Instances

IMAGES

- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

- Volumes
- Snapshots

NETWORK & SECURITY

- Security Groups
- Elastic IPs
- Placement Groups
- Load Balancers
- Key Pairs
- Network Interfaces

Launch Instance | Actions

Viewing: All Instances | All Instance Types | Search

1 to 1 of 1 Instances

|                          | Name  | Instance   | AMI ID       | Root Device | Type     | State   | Status Checks   | Alarm Status | Monitoring | Secu |
|--------------------------|-------|------------|--------------|-------------|----------|---------|-----------------|--------------|------------|------|
| <input type="checkbox"/> | empty | i-94d865e4 | ami-3d4ff254 | ebs         | t1.micro | running | initializing... | none         | basic      | Bas  |

No EC2 Instances selected.

Select an instance above

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sample.pem | Show All

Edit Instance Name

EC2 Management Console | Amazon Web Services, Cloud

https://console.aws.amazon.com/ec2/home?region=us-east-1#Instances

Services | Edit | chris | N. Virginia | Help

EC2 Dashboard | Events

INSTANCES

- Instances
- Spot Requests
- Reserved Instances

IMAGES

- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

- Volumes
- Snapshots

NETWORK & SECURITY

- Security Groups
- Elastic IPs
- Placement Groups
- Load Balancers
- Key Pairs
- Network Interfaces

Launch Instance | Actions

Viewing: All Instances | All Instance Types | Search

1 to 1 of 1 Instances

| Name        | Instance   | AMI ID       | Root Device | Type     | State   | Status Checks   | Alarm Status | Monitoring |
|-------------|------------|--------------|-------------|----------|---------|-----------------|--------------|------------|
| the_general | i-94d865e4 | ami-3d4ff254 | ebs         | t1.micro | running | initializing... | none         | basic      |

1 EC2 Instance selected.

EC2 Instance: i-94d865e4  
ec2-54-234-106-15.compute-1.amazonaws.com

Description | Status Checks | Monitoring | Tags

AMI: ubuntu/images/ebs/ubuntu-precise-12.04-amd64-server-20121001 (ami-3d4ff254)

Zone: us-east-1b

Type: t1.micro

Scheduled Events: No scheduled events

VPC ID: -

Source/Dest. Check: -

Placement Group: -

RAM Disk ID: -

Alarm Status: none

Security Groups: Basic\_Group. view rules

State: running

Owner: 354957696272

Subnet ID: -

Virtualization: paravirtual

Reservation: r-f7f3848c

Platform: -

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Feedback

sample.pem | Show All

Copy your **whatever**.amazonaws.com

## **Connect to your server**

Open Terminal.app

Windows users - Putty & WinSCP ==» <http://bit.ly/1YXodh>

## **Fix your keypair**

```
chmod 0600 ~/Downloads/yourkey.pem
```

## Log into the machine

```
ssh ubuntu@whatever.amazonaws.com -i ~/Downloads/yourkey.pem
```

## Wait ! What did we just do??

**ssh** = connect to the servers command line  
\*\*Think FTP for Terminal

**ubuntu@whatever.amazonaws.com** = username@address.com  
\*\*ubuntu is default username for new EC2 Ubuntu

**-i ~/Downloads/yourkey.pem** = identity file argument

## **You are now connected to the cloud**

Your command line is now in charge to the EC2 Server,  
until you disconnect (CTRL+D) or close the terminal  
you are on that machine.

## Pro Tip: Update

```
sudo apt-get update  
sudo apt-get upgrade
```

**Always update when you boot a new instance**



# Now Let's Install Apache

Apache is web server software.  
Its your sites switchboard operator.



It runs alot of websites.

**To do this type...**

```
sudo apt-get install apache2
```

## So Now, What was that?

**sudo** = super user 'do'. sudo means your calling the shots  
sudo requires permission - in this case EC2 preset this

**apt-get** = command line program - system package manager.

**install** = the command for our program (in this case apt-get)

**More more more....**

```
sudo apt-get install mysql-server mysql-client
```

```
sudo apt-get install mongodb
```

```
sudo apt-get install git-core
```

```
sudo apt-get install php5 php5-dev libapache2-mod-php5 php5-curl  
php5-gd php5-idn php-pear php5-imagick php5-imap php5-mcrypt  
php5-memcache php5-ps php5-pspell php5-recode php5-snmp  
php5-tidy php5-xmlrpc php5-xsl php5-common
```

**[http://learning.piuggi.com/web3\\_S13/ubuntu.html](http://learning.piuggi.com/web3_S13/ubuntu.html)**

**Looking for a particular package?**

google 'apt-get [something i need]'

Lets test out our new server.

Go to

<http://whatever.amazonaws.com>

Applause.



**Next...**

We need to set up SFTP

## Make some credentials

```
sudo useradd -m [username]
```

```
sudo passwd [username]
```

-m creates a home folder for our new user.

Enter your password twice - It will not show up on the screen.

# Make Yourself Super

sudo visudo



command line text editor

```
chris — ubuntu@ip-10-4-46-171: ~ — ssh — 80x24
GNU nano 2.2.6      File: /etc/sudoers.tmp      Modified

# Host alias specification

# User alias specification

# Cmnd alias specification

# User privilege specification
root    ALL=(ALL:ALL) ALL
user    ALL=(ALL:ALL) ALL

# Members of the admin group may gain root privileges
%admin   ALL=(ALL) ALL

# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL

# See sudoers(5) for more information on "#include" directives:

^G Get Help  ^O WriteOut  ^R Read File ^Y Prev Page ^K Cut Text  ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is  ^V Next Page ^U UnCut Text ^T To Spell
```

Add your **[username]** under root

# Save and Quit

CTRL+O

ENTER

CTRL+X

**Try it out...**

su [username]

sudo ls

# Edit SSH Settings

```
sudo vi /etc/ssh/sshd_config
```

type i to edit (i==insert)

Set port from 22 to 30000. For security reasons.

PermitRootLogin should be no

Password Authentication should be yes

Hit ESC

Type ':wq' to save & quit



# Restart SSH

```
sudo /etc/init.d/ssh restart
```

# **Folders & Permissions**

set up the www directory so we can edit it

## Create a group

```
sudo groupadd webadmin
```

```
sudo usermod -a -G webadmin [username]
```

```
$ sudo usermod -a -G webadmin root
```

## **Edit the WWW Directory**

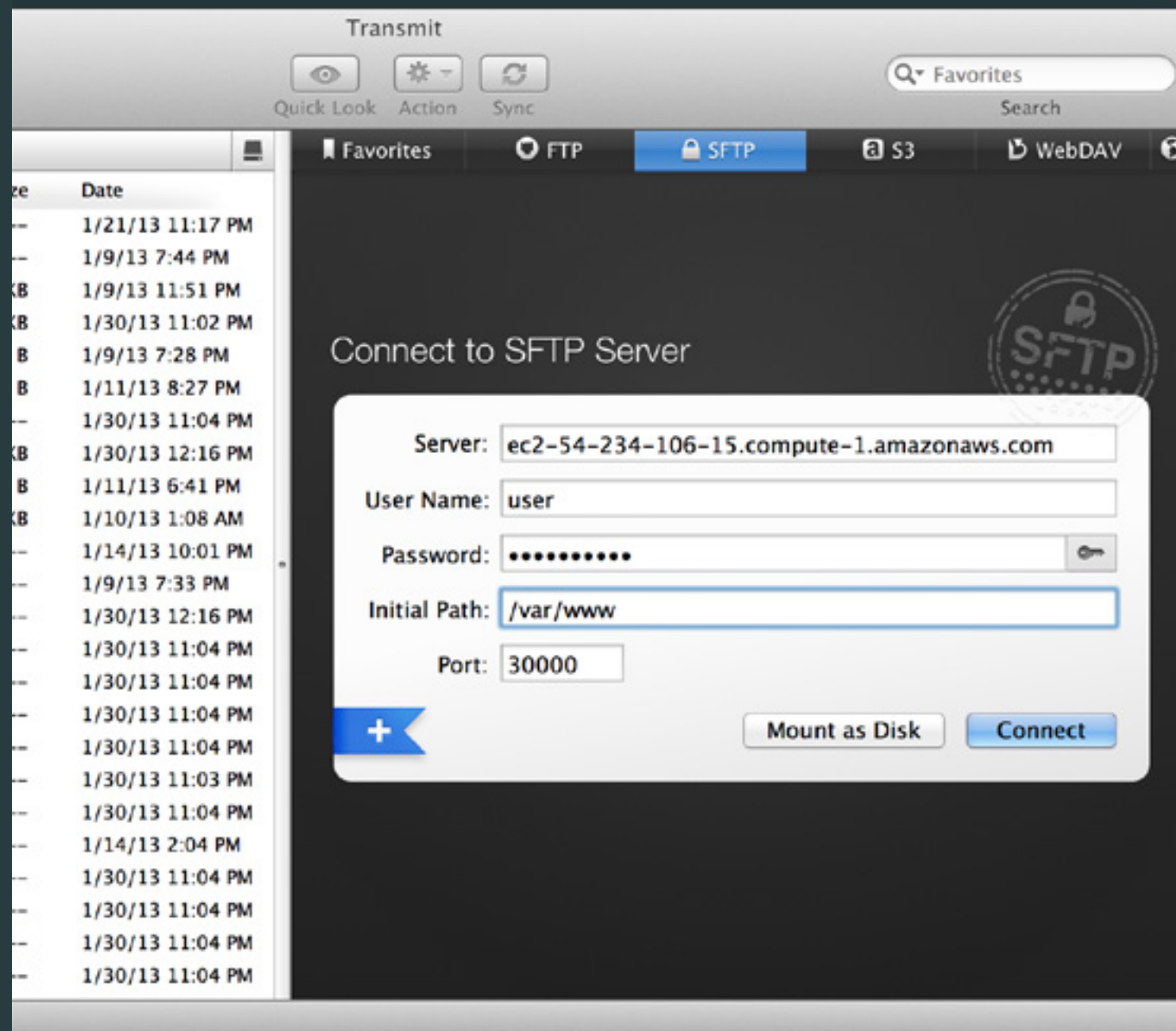
```
sudo chown -R root:webadmin /var/www
```

```
sudo chmod -R 775 /var/www
```

## **Edit the WWW Directory**

```
sudo chown -R root:webadmin /var/www
```

```
sudo chmod -R 775 /var/www
```



Log in !

## Login with SSH

```
ssh username@whatever.amazonaws.com -p 30000
```

# Linux Commands

**ls** = list directory

**ls -la** = list directory organize and provide file info including hidden files & permissions

**cd** /path/to/directory = change directory

**pwd** = current directory

**mkdir [dir]** = make new directory

**chmod XXX [dir/file]** = change the read/write permissions of file

**chown [user]:[group] [dir/file]** = change ownership of file

**CTRL+D** = quit ssh

**CTRL+C** = quit current operation