HU Extension Assignment 02 E-90 Cloud Computing
Handed out: 09/11/2015 Due by 11:59 PM EST
09/18/2015

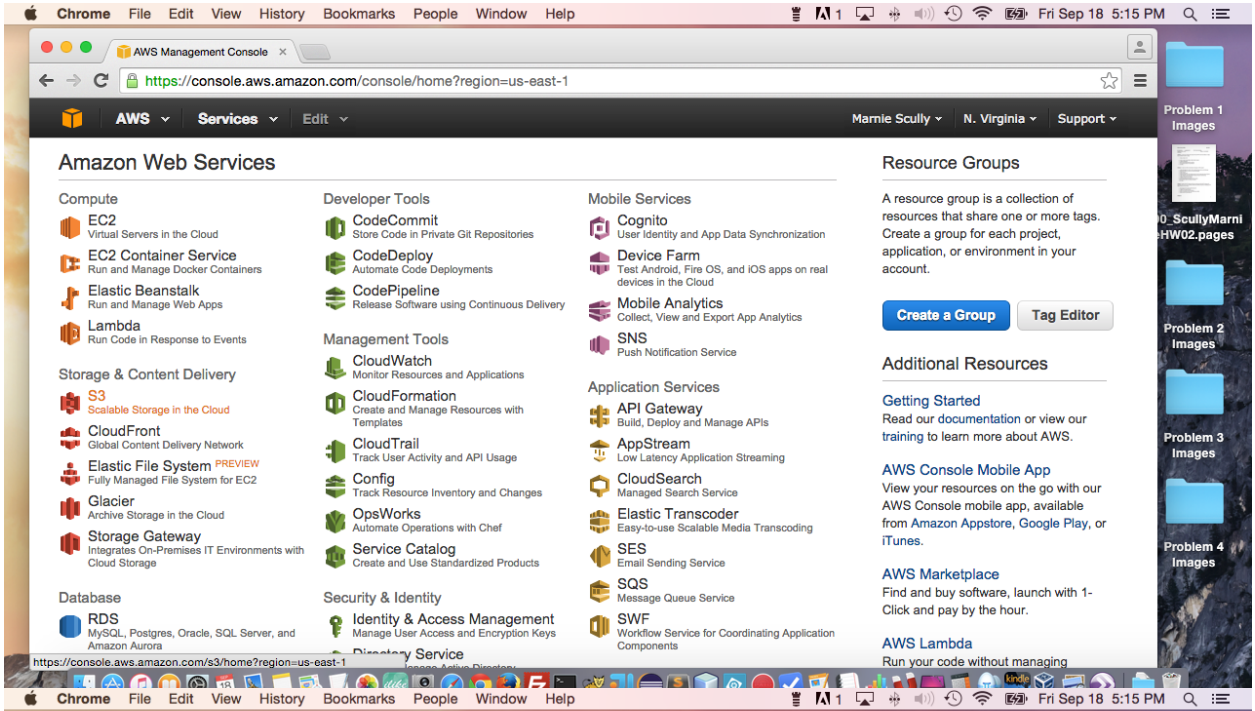
Problem 1: Access the S3 storage area using tools inside AWS Console and display an image that is available for public viewing.

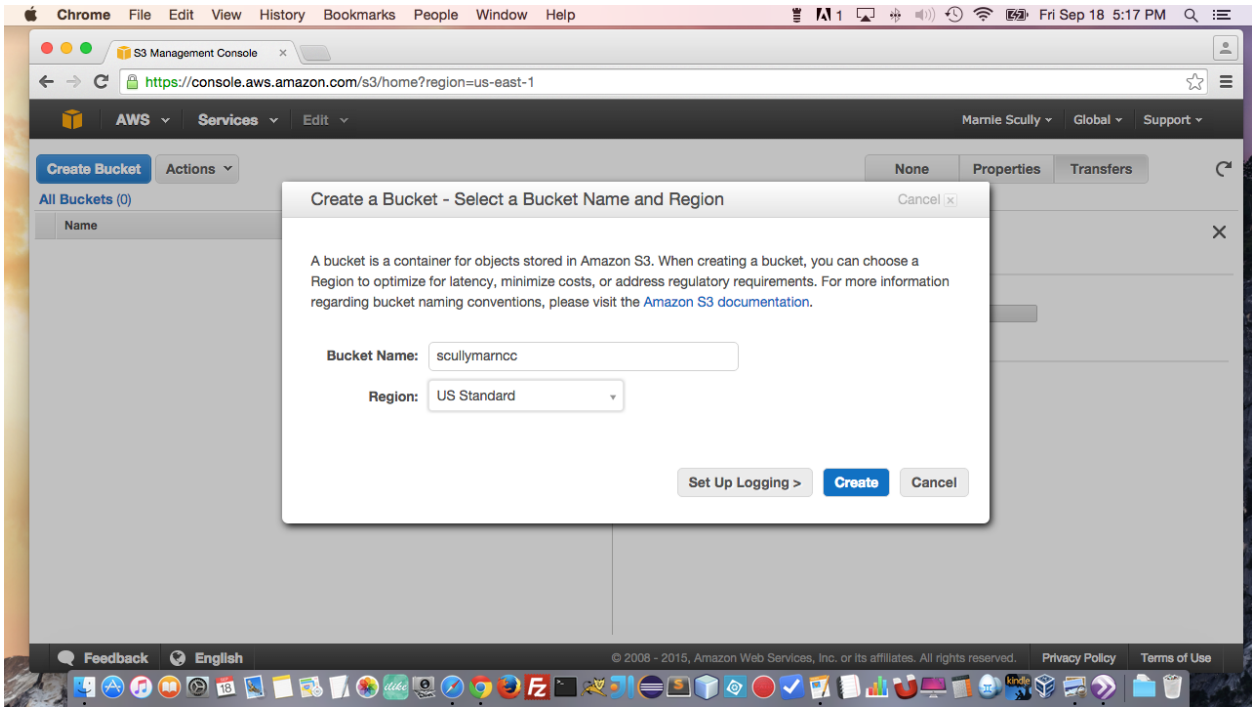
Create a Bucket in S3

Select S3

Then Create a Bucket

Give Bucket Unique Name a choose region




Chrome File Edit View History Bookmarks People Window Help
Fri Sep 18 5:17 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1
AWS Services Edit
Marnie Scully Global Support
Create Bucket Actions
None Properties Transfers
All Buckets (0)
Name
Create a Bucket - Select a Bucket Name and Region
Cancel
A bucket is a container for objects stored in Amazon S3. When creating a bucket, you can choose a Region to optimize for latency, minimize costs, or address regulatory requirements. For more information regarding bucket naming conventions, please visit the Amazon S3 documentation.
Bucket Name: scullymarncc
Region: US Standard
Set Up Logging > Create Cancel
Feedback English
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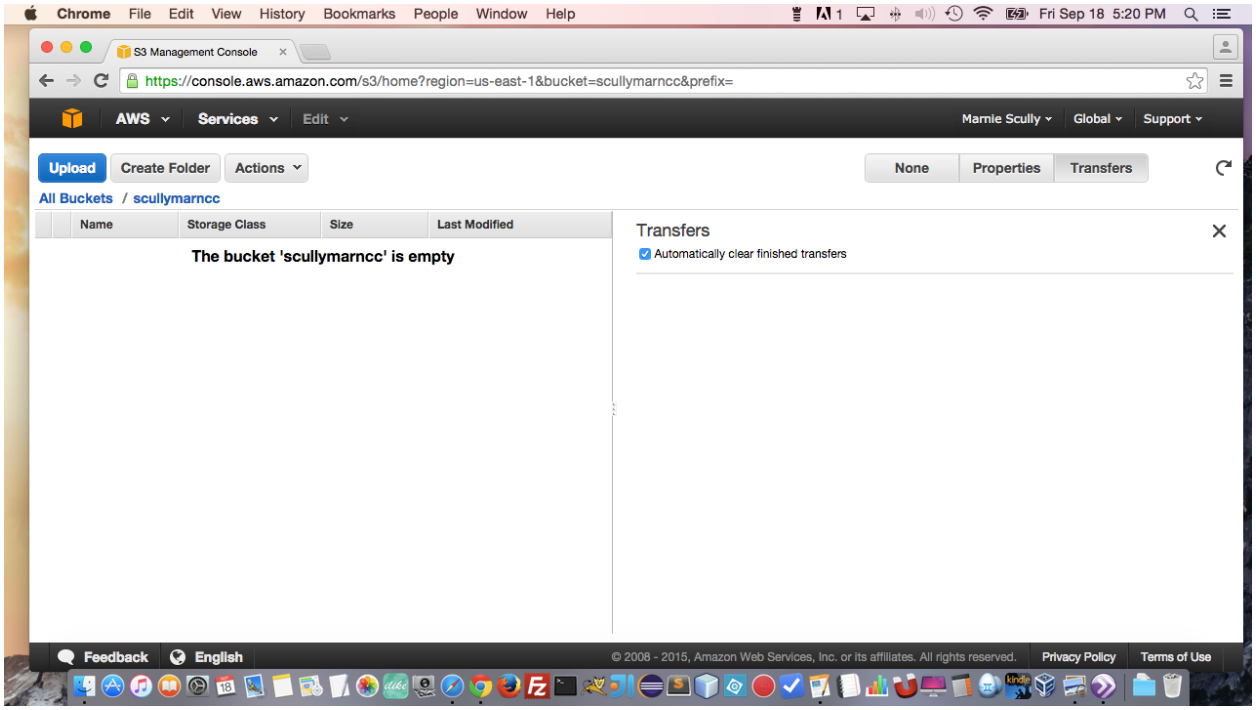
Privacy Policy Terms of Use


Chrome File Edit View History Bookmarks People Window Help
Fri Sep 18 5:20 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1&bucket=scullymarncc&prefix=
AWS Services Edit
Marnie Scully Global Support
Upload Create Folder Actions
None Properties Transfers
All Buckets / scullymarncc
Name Storage Class Size Last Modified
The bucket 'scullymarncc' is empty
Transfers
Automatically clear finished transfers
Feedback English
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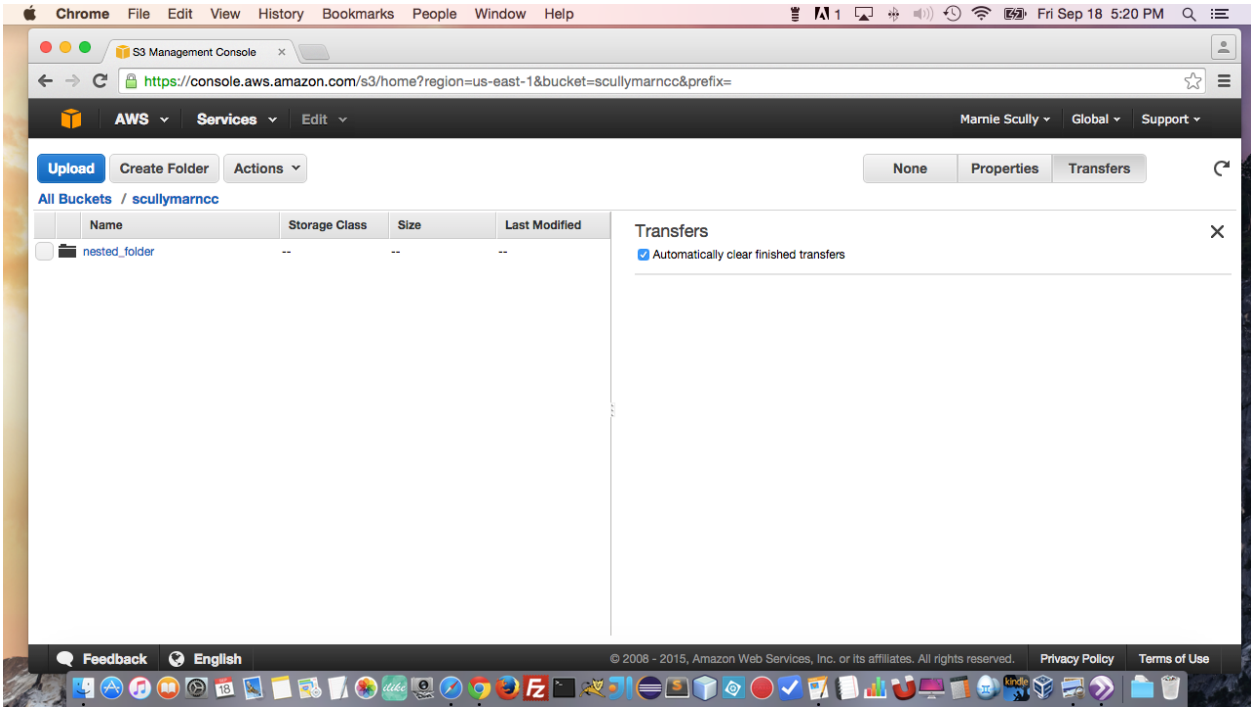
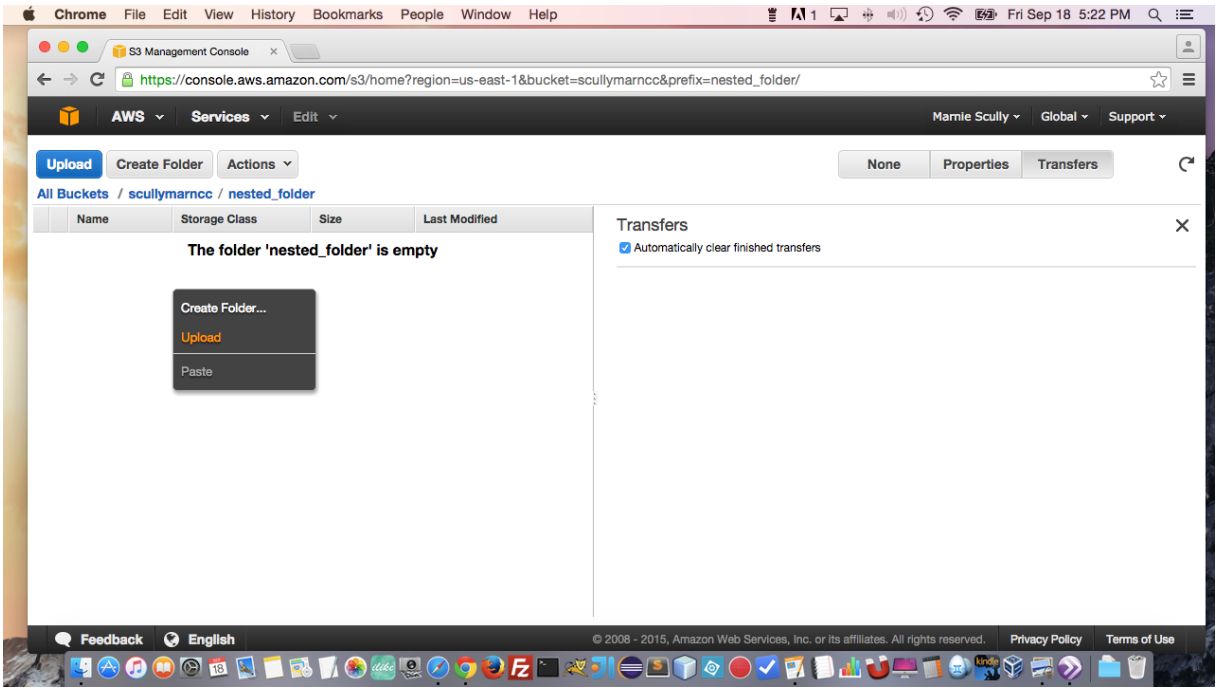
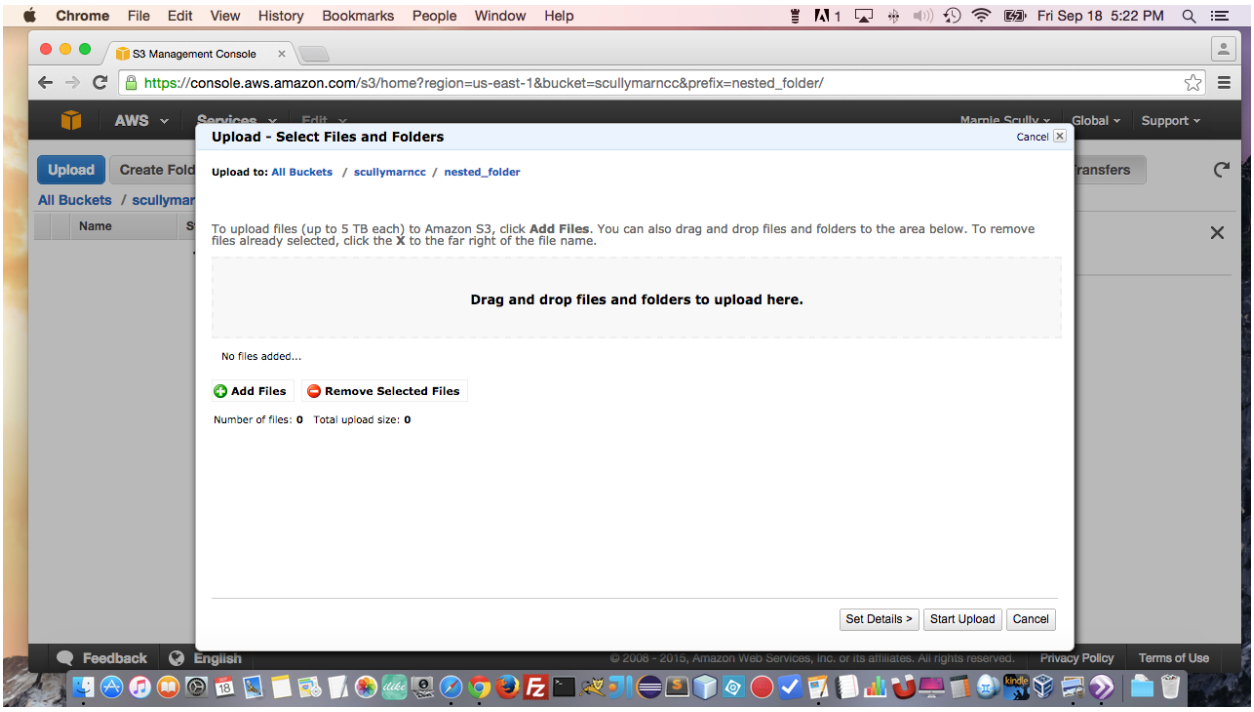
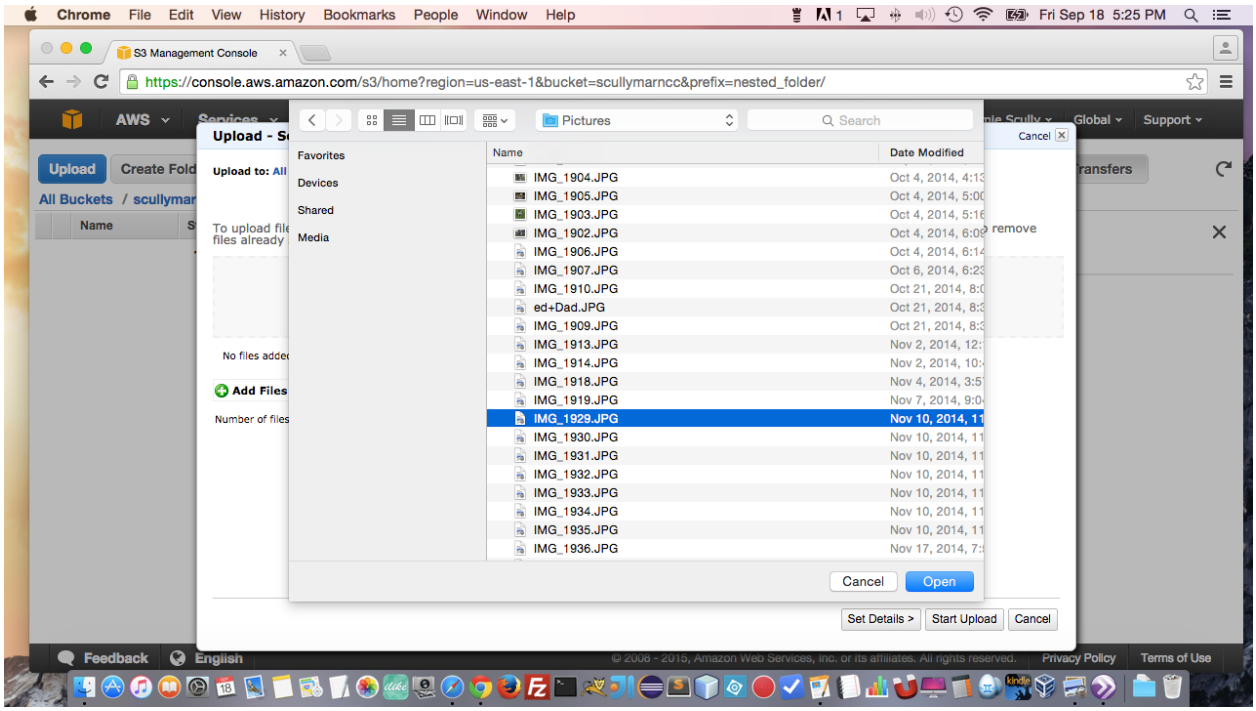
Create a Double-nested folder (a folder within a bucket)

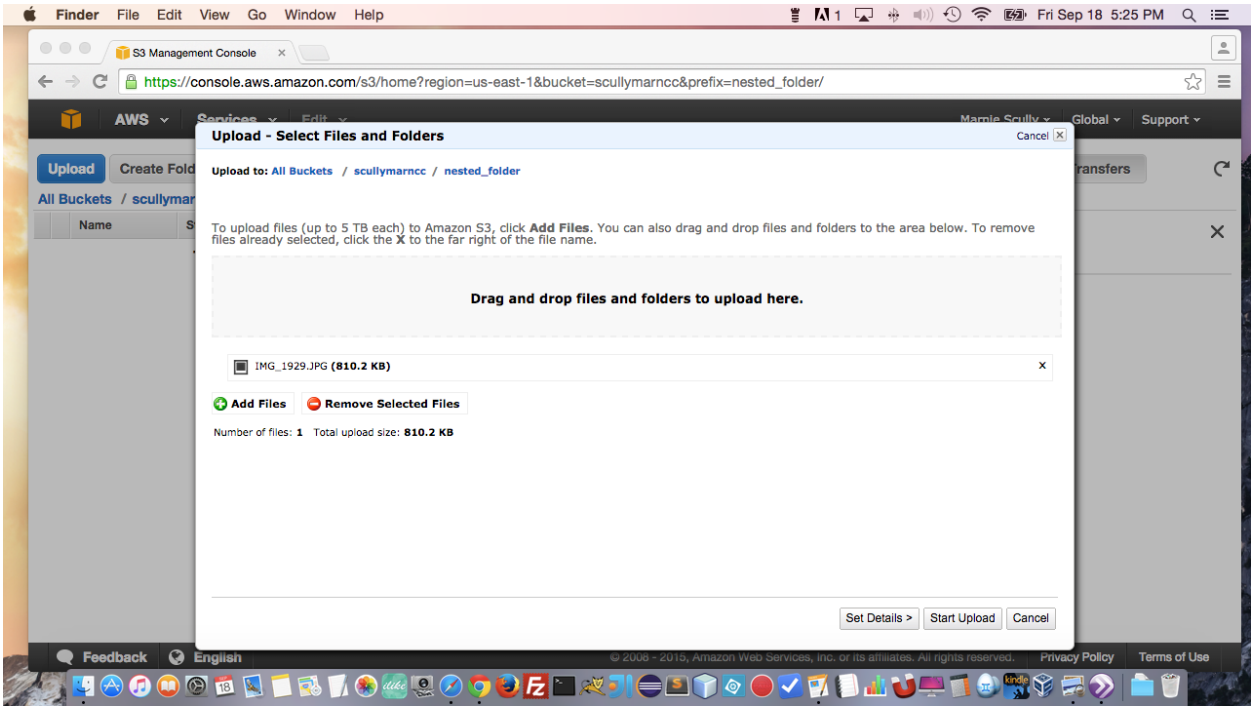


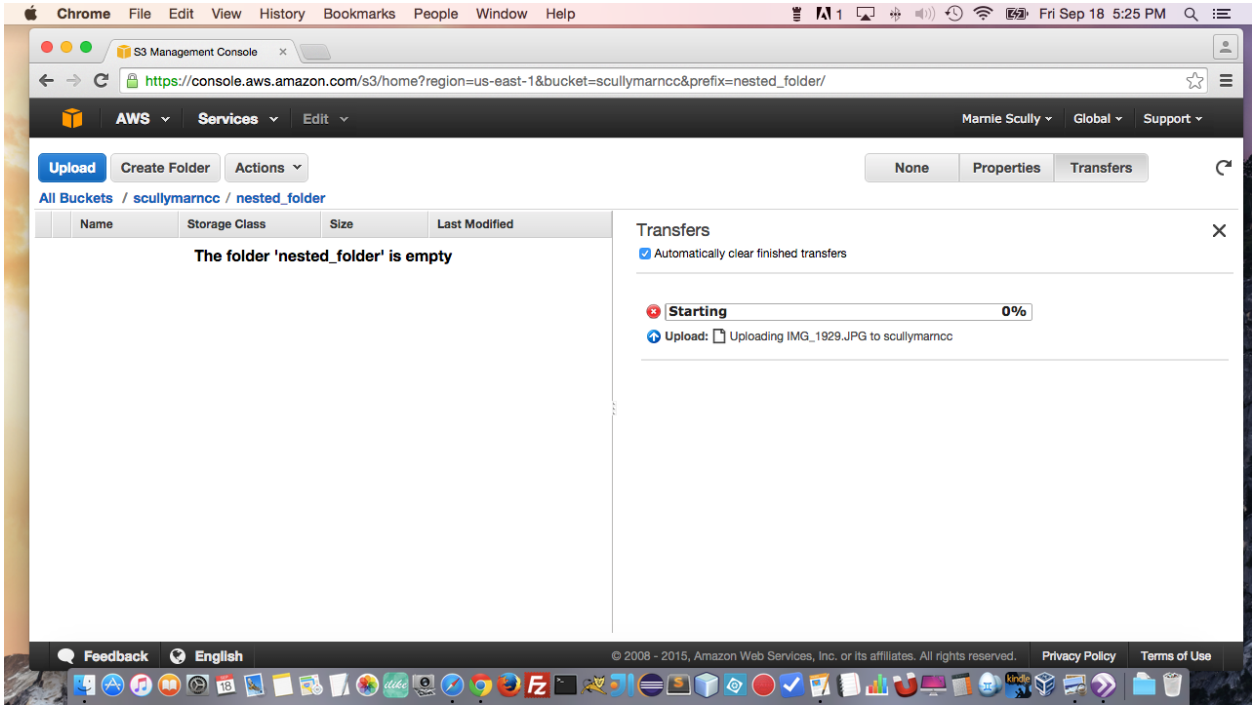
Upload a photograph






Chrome File Edit View History Bookmarks People Window Help
Fri Sep 18 5:25 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1&bucket=scullymarncc&prefix=nested_folder/
AWS
Upload
Create Fold
All Buckets / scullymar
Name
Pictures
Search
Favorites
Devices
Shared
Media
Name
Date Modified
IMG_1904.JPG
IMG_1905.JPG
IMG_1903.JPG
IMG_1902.JPG
IMG_1906.JPG
IMG_1907.JPG
IMG_1910.JPG
ed+Dad.JPG
IMG_1909.JPG
IMG_1913.JPG
IMG_1914.JPG
IMG_1918.JPG
IMG_1919.JPG
IMG_1929.JPG
IMG_1930.JPG
IMG_1931.JPG
IMG_1932.JPG
IMG_1933.JPG
IMG_1934.JPG
IMG_1935.JPG
IMG_1936.JPG
Cancel
Open
Add Files
Set Details >
Start Upload
Cancel
Feedback
English
Privacy Policy
Terms of Use


Finder File Edit View Go Window Help
Fri Sep 18 5:25 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1&bucket=scullymarncc&prefix=nested_folder/
AWS
Upload
Create Fold
All Buckets / scullymar
Name
Upload - Select Files and Folders
Upload to: All Buckets / scullymarncc / nested_folder
To upload files (up to 5 TB each) to Amazon S3, click Add Files. You can also drag and drop files and folders to the area below. To remove files already selected, click the X to the far right of the file name.
Drag and drop files and folders to upload here.
IMG_1929.JPG (810.2 KB)
Add Files
Remove Selected Files
Number of files: 1 Total upload size: 810.2 KB
Set Details >
Start Upload
Cancel
Feedback
English
Privacy Policy
Terms of Use


Chrome File Edit View History Bookmarks People Window Help
Fri Sep 18 5:25 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1&bucket=scullymarncc&prefix=nested_folder/
AWS Services Edit
Marnie Scully Global Support
Upload Create Folder Actions
None Properties Transfers
All Buckets / scullymarncc / nested_folder
Name Storage Class Size Last Modified
The folder 'nested_folder' is empty
Transfers
Automatically clear finished transfers
Starting 0%
Upload: Uploading IMG_1929.JPG to scullymarncc
Feedback English
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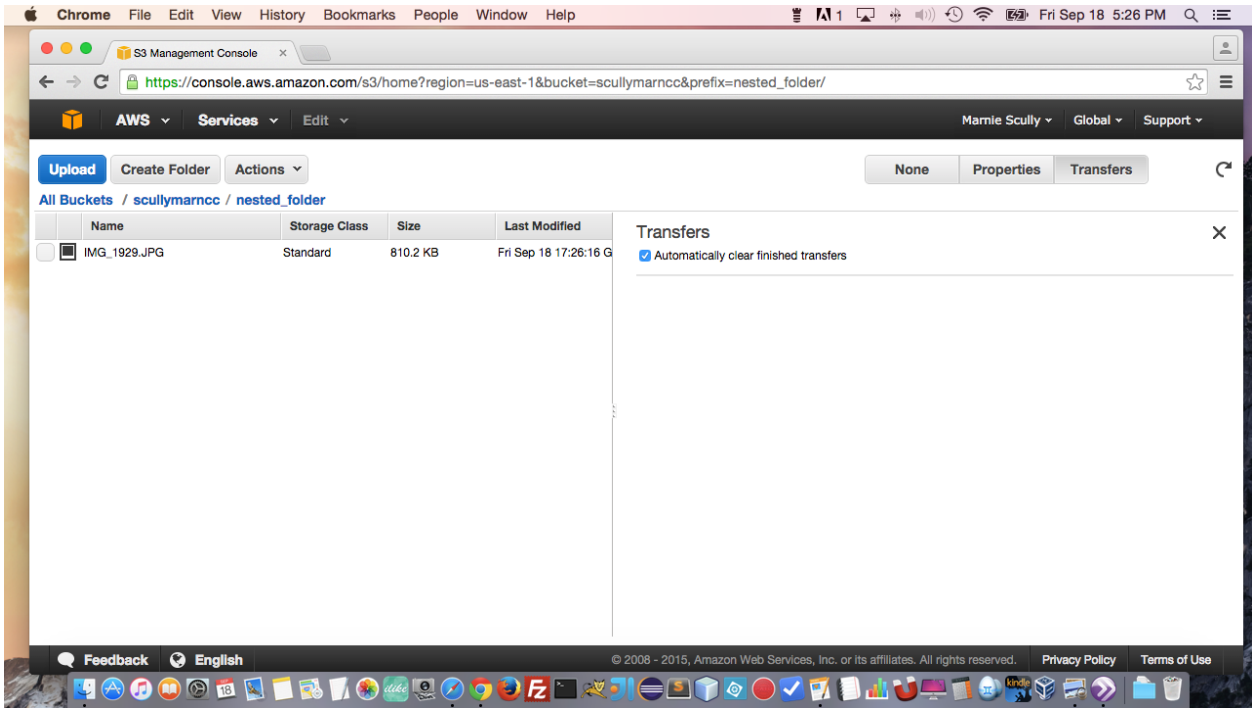
Privacy Policy Terms of Use


Chrome File Edit View History Bookmarks People Window Help
Fri Sep 18 5:26 PM
S3 Management Console
https://console.aws.amazon.com/s3/home?region=us-east-1&bucket=scullymarncc&prefix=nested_folder/
AWS Services Edit
Marnie Scully Global Support
Upload Create Folder Actions
None Properties Transfers
All Buckets / scullymarncc / nested_folder
Name Storage Class Size Last Modified
IMG_1929.JPG Standard 810.2 KB Fri Sep 18 17:26:16 G
Transfers
Automatically clear finished transfers
Feedback English
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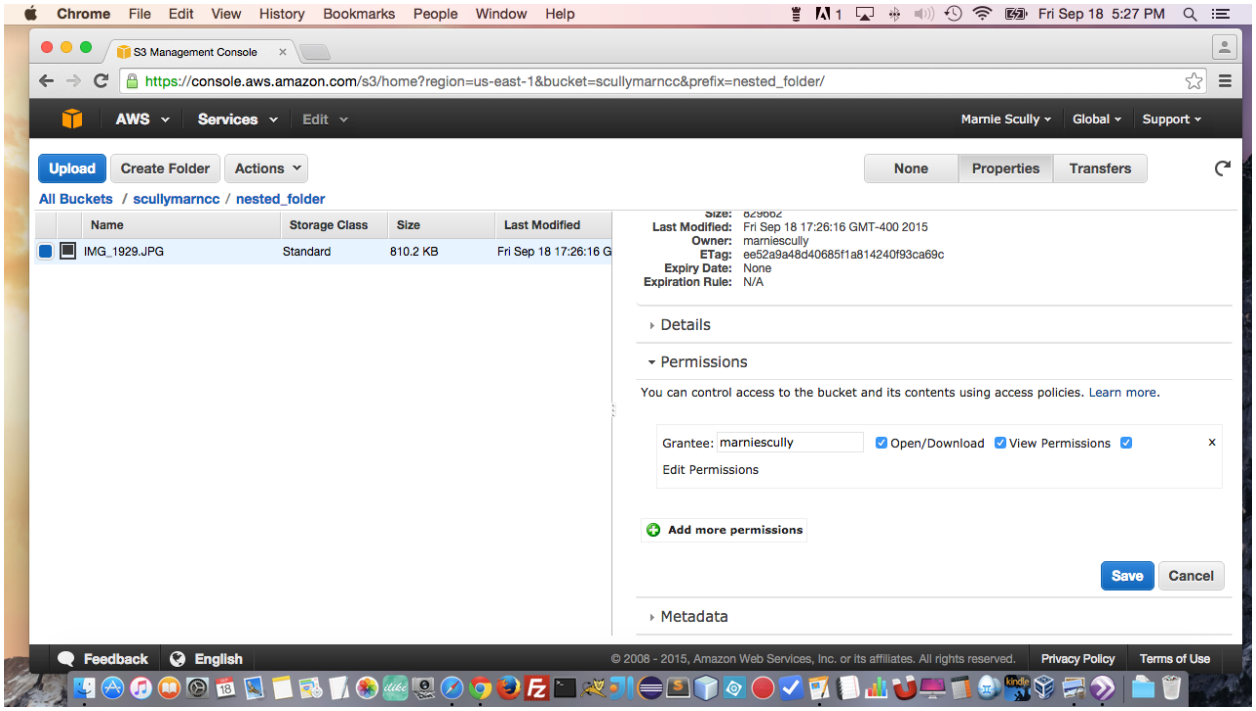
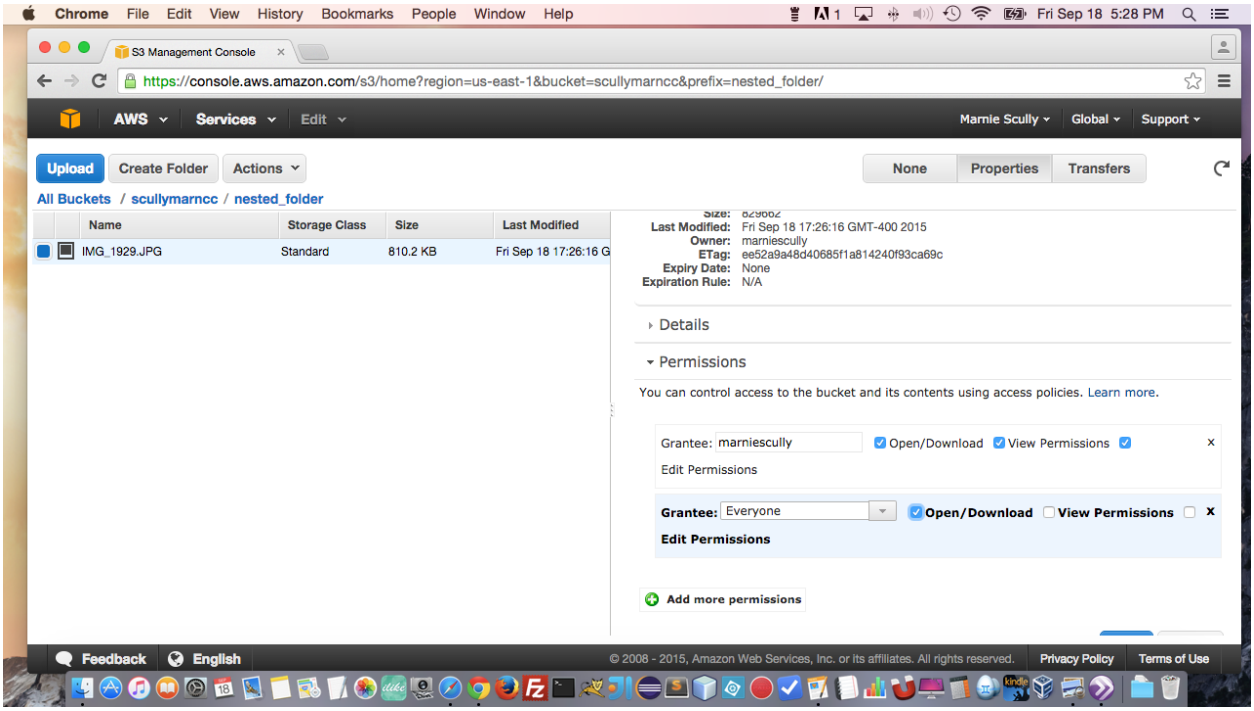
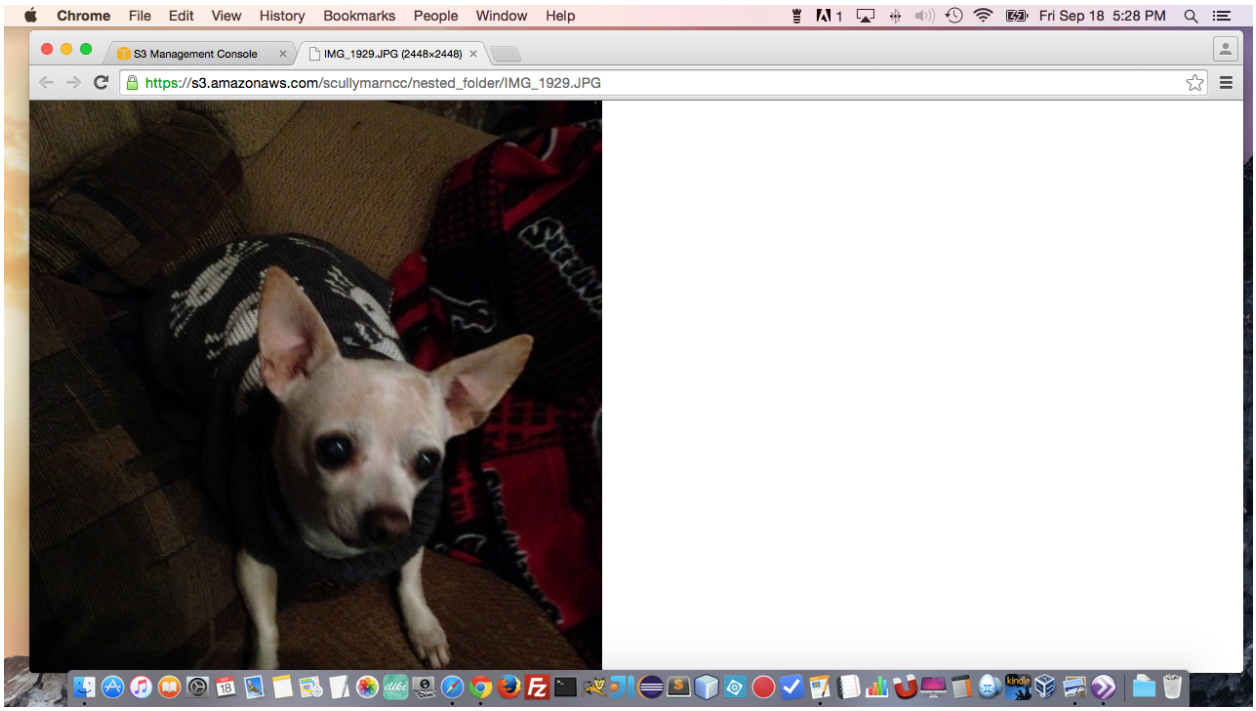
Privacy Policy Terms of Use

Make the photograph publicly accessible





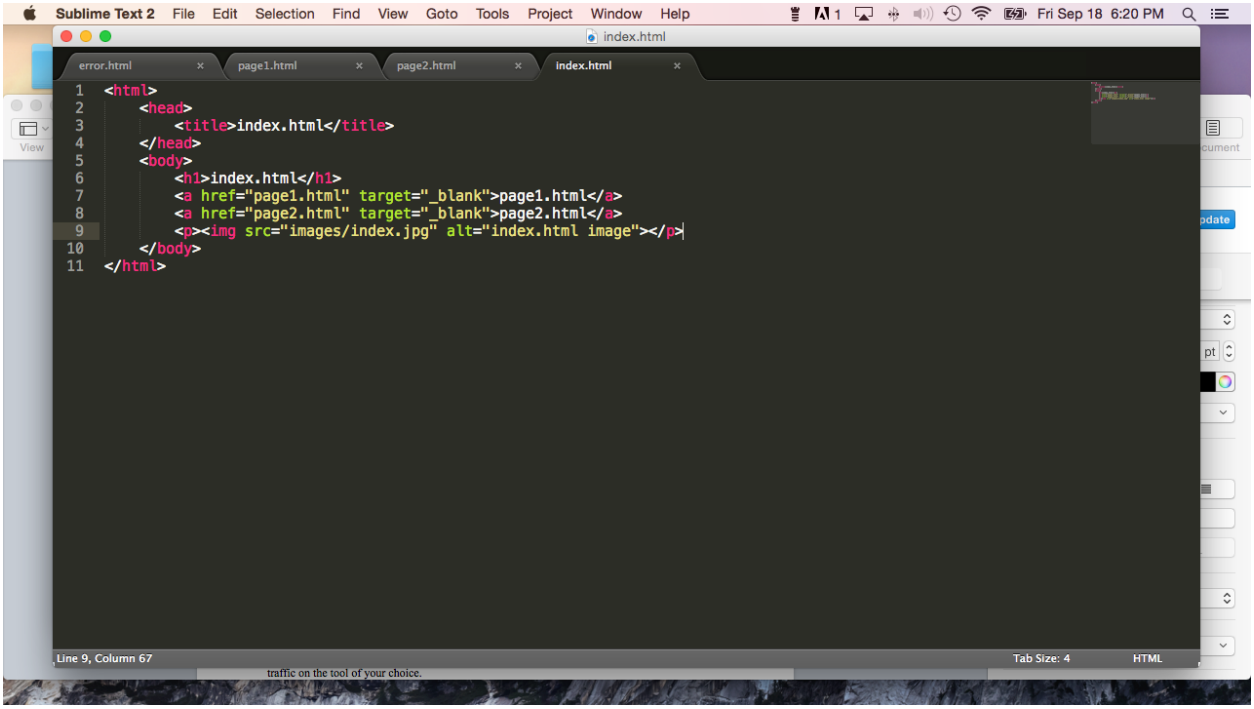
Prove that you can see it in your browser



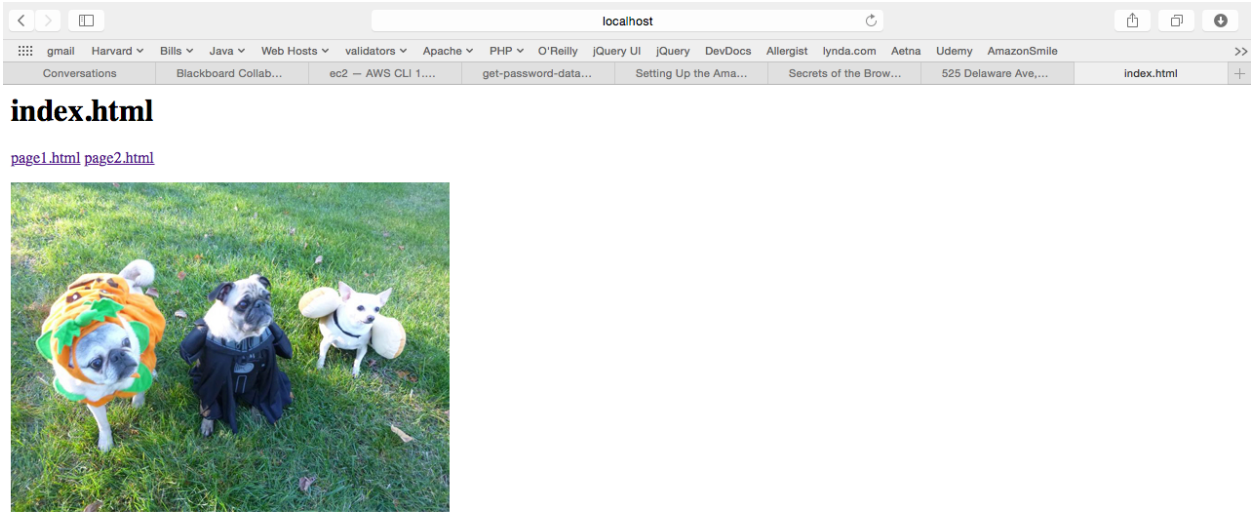
The Url:
https://s3.amazonaws.com/scullymarncc/nested_folder/IMG_1929.JPG

Problem 2: Create a tiny Web site (html files and images) on AWS using S3.

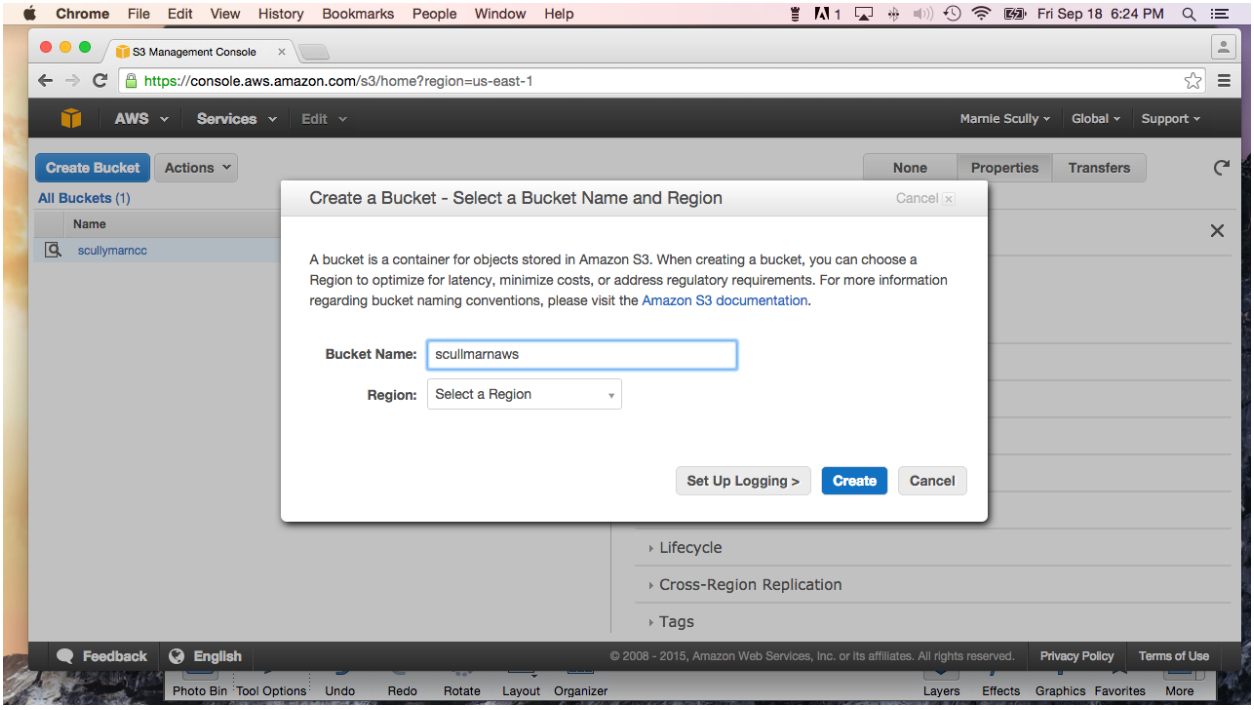
Create web pages for a web site with one index.html page and one error.hmtl page.
Index.html contains two links to two simple static pages



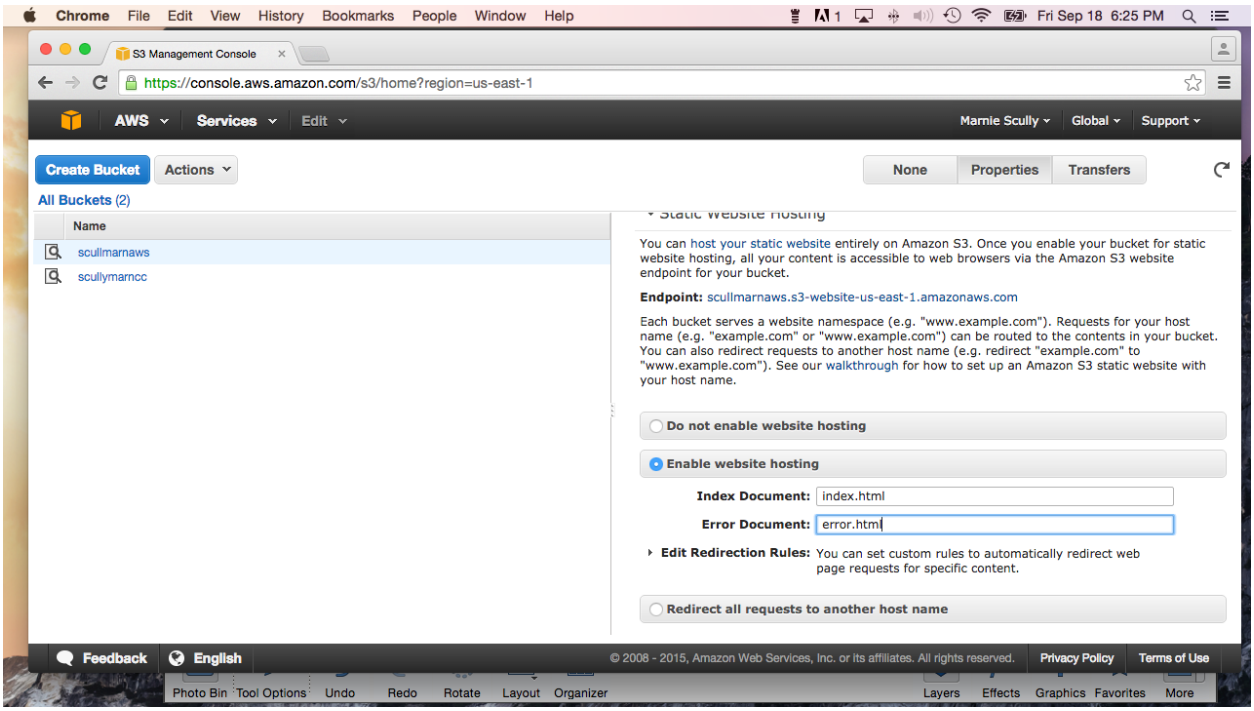
Check your site.



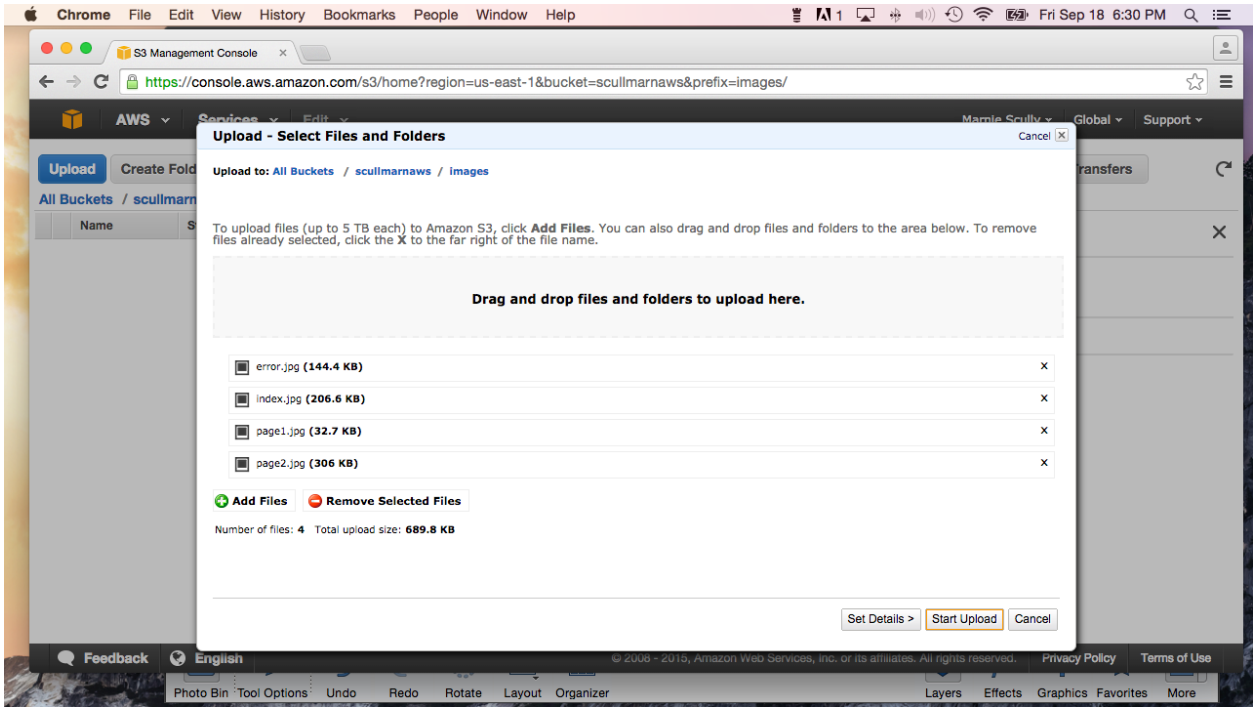
Create a bucket in S3.



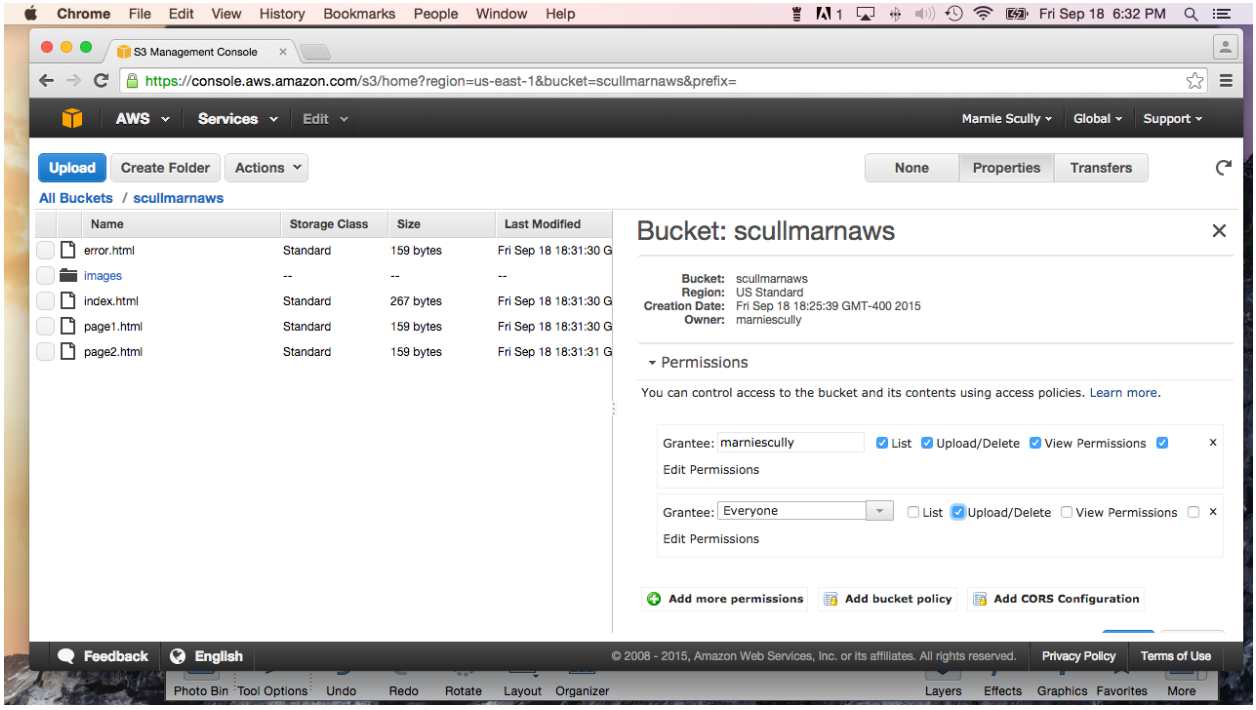
Select that bucket and in the right hand corner of the S3 console page select Properties. Under Properties, select Static Website Hosting and Enable website hosting. Add your index and error files here.



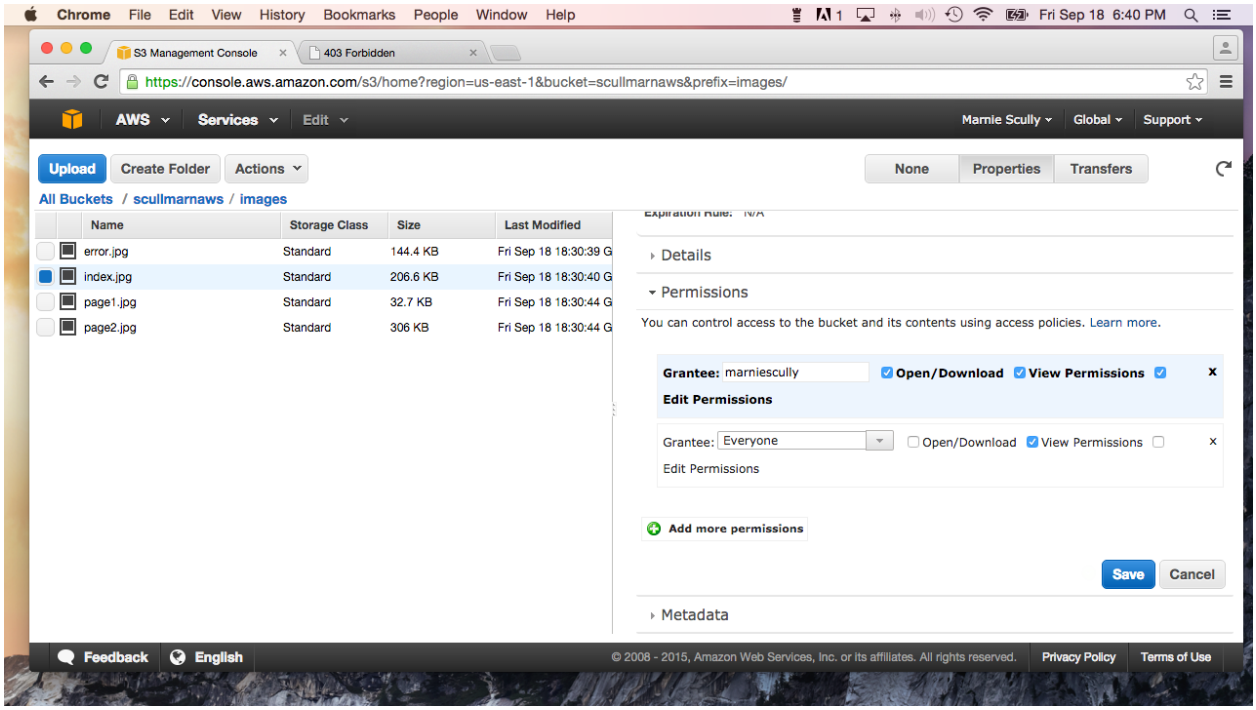
Upload your files into your bucket.

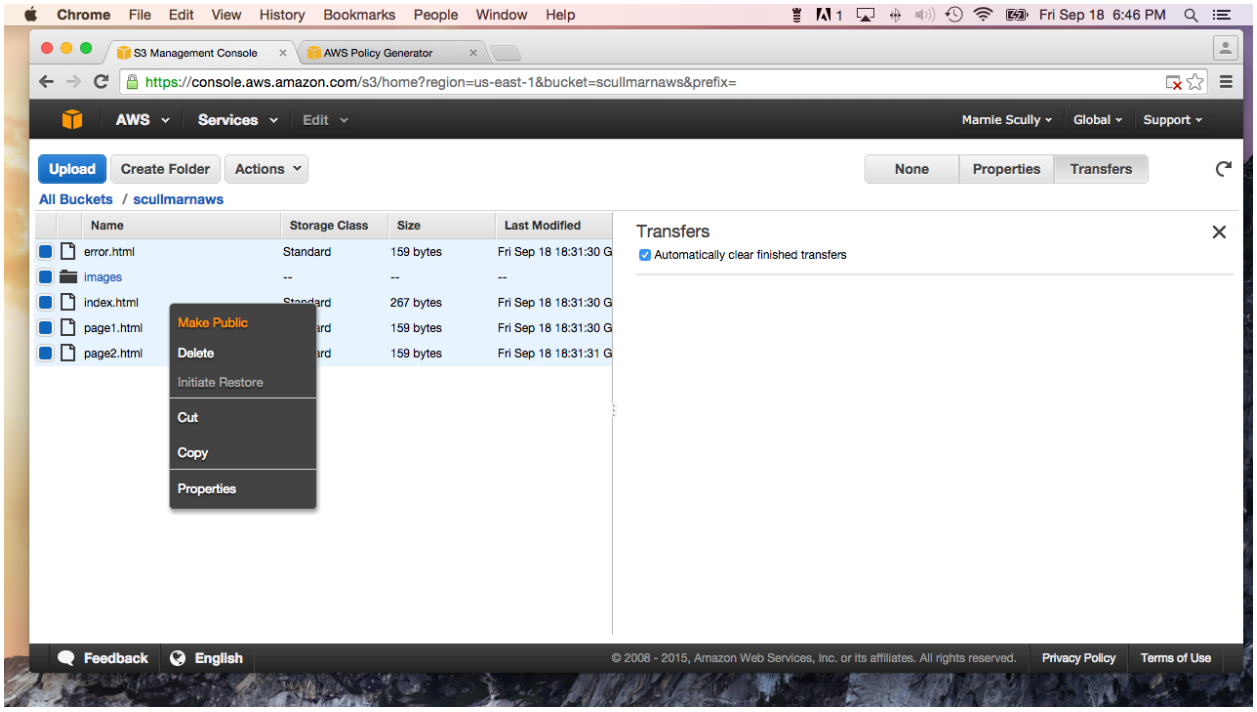


Provide appropriate permissions for public viewing.

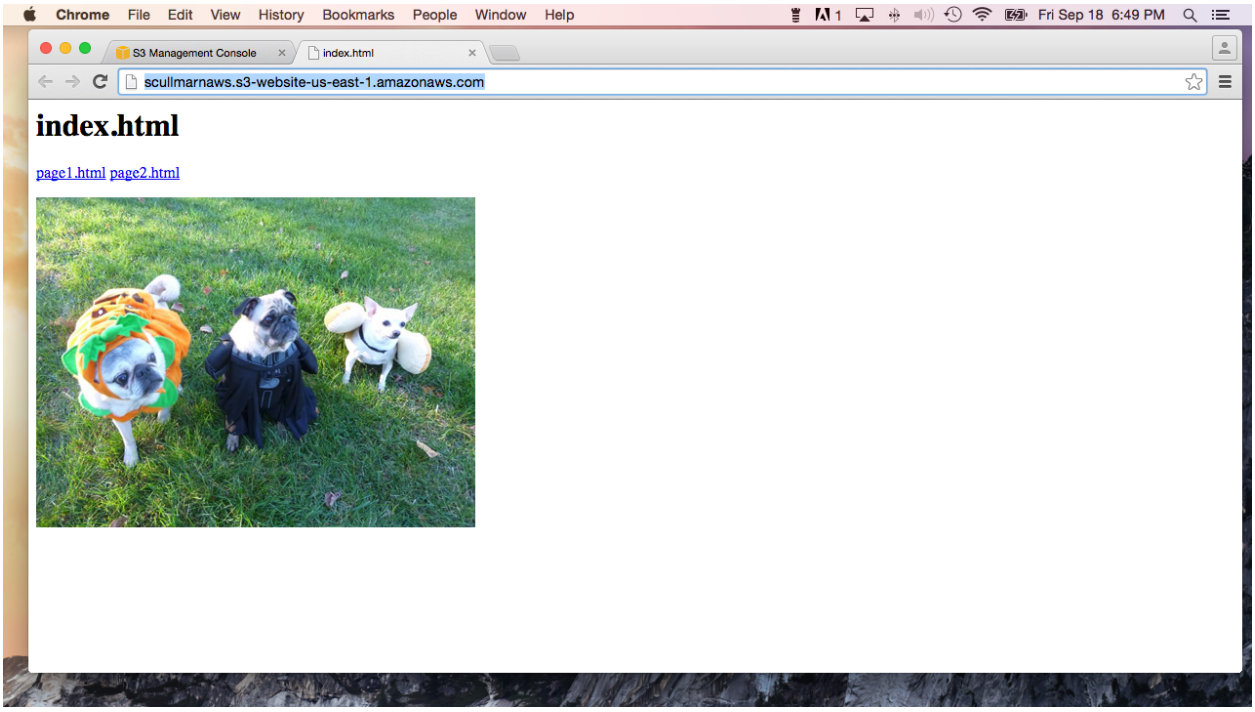


Each file and folder must have permissions set to have it publicly available.





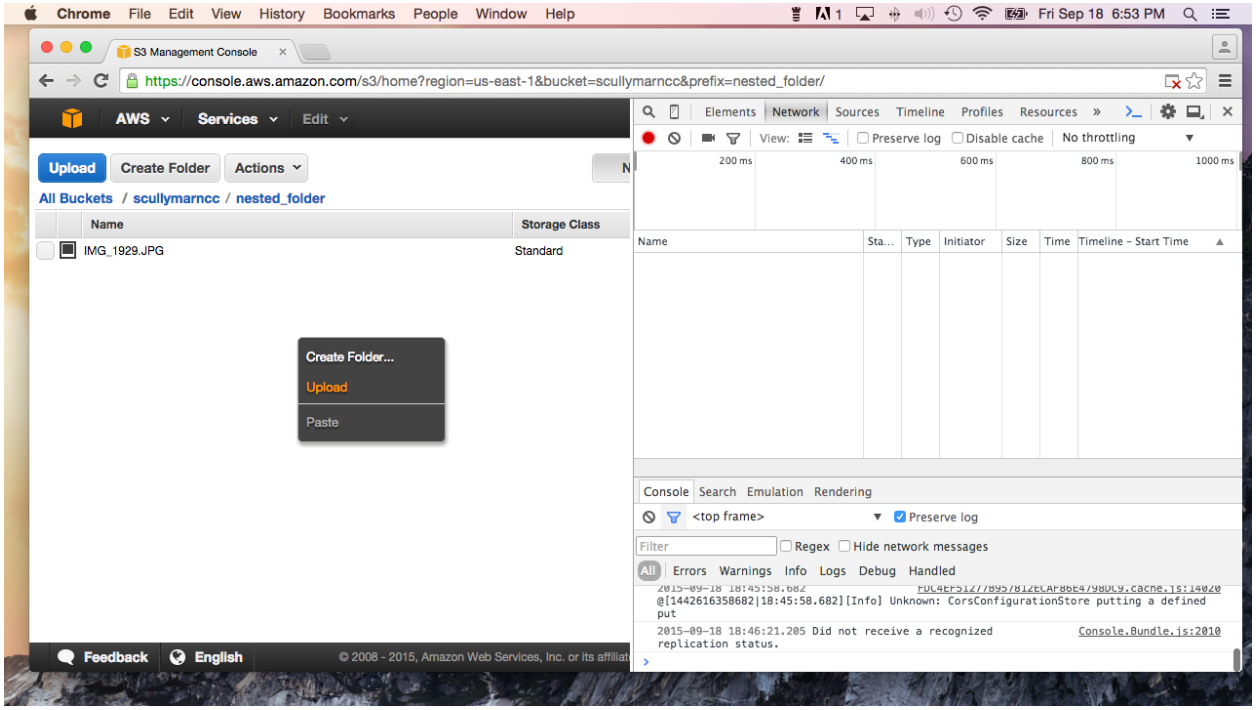
Show that your Web site is publicly accessible.



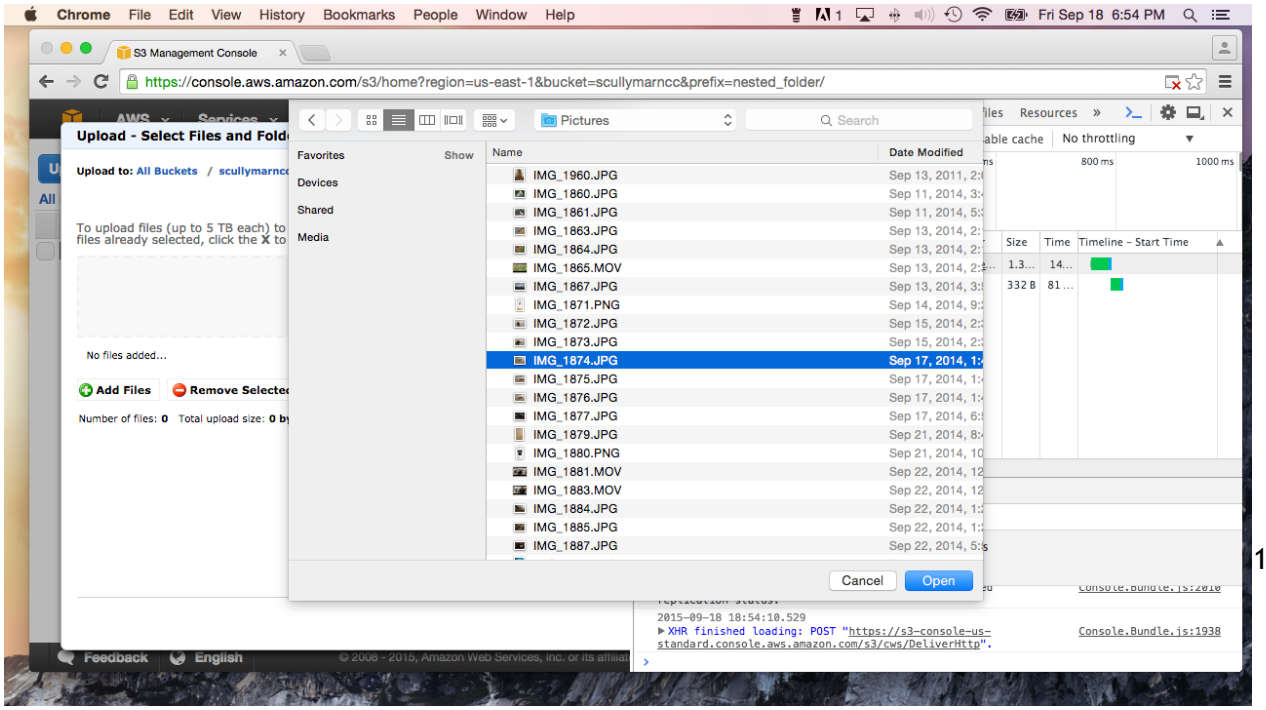
The URL. http://scullmarnaws.s3-website-us-east-1.amazonaws.com/

Problem 3: Capture the HTTP requests sent from your Browser and the HTTP responses for uploading a file to one of your S3 buckets. Describe and illustrate the process of capturing HTTP traffic on the tool of your choice.

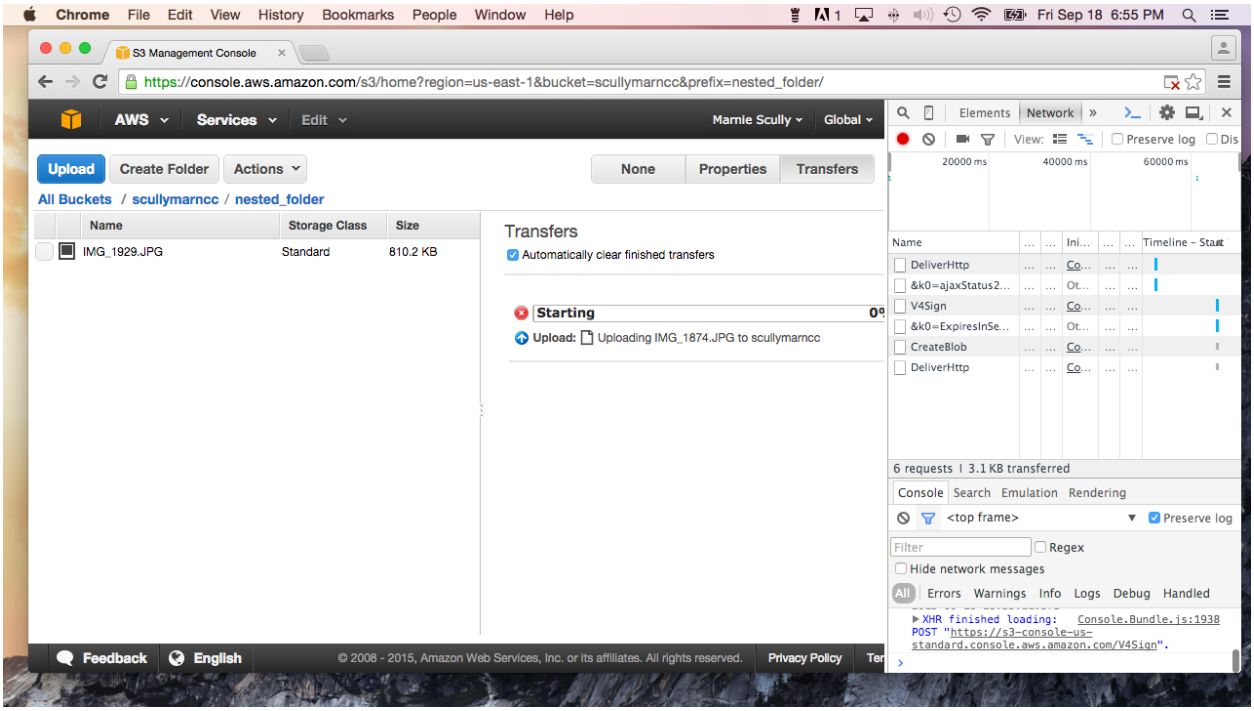
Run Google Chrome Network Monitoring Tool

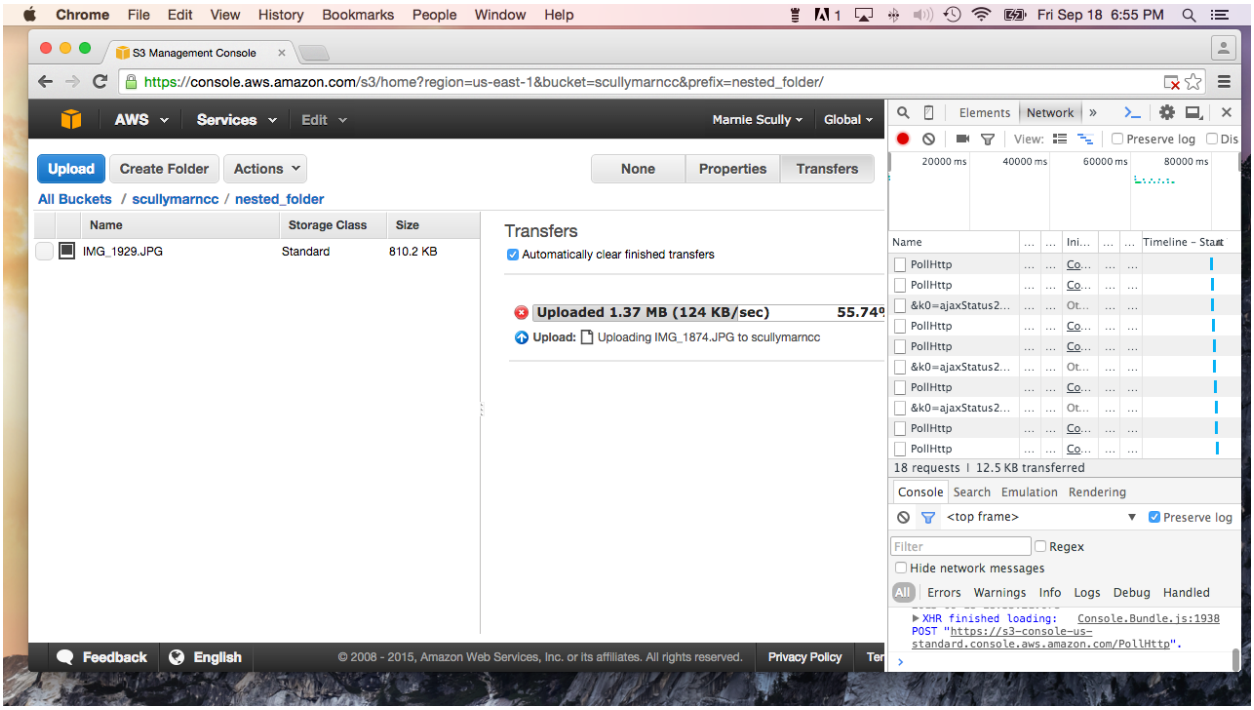


Upload a file to your S3 bucket

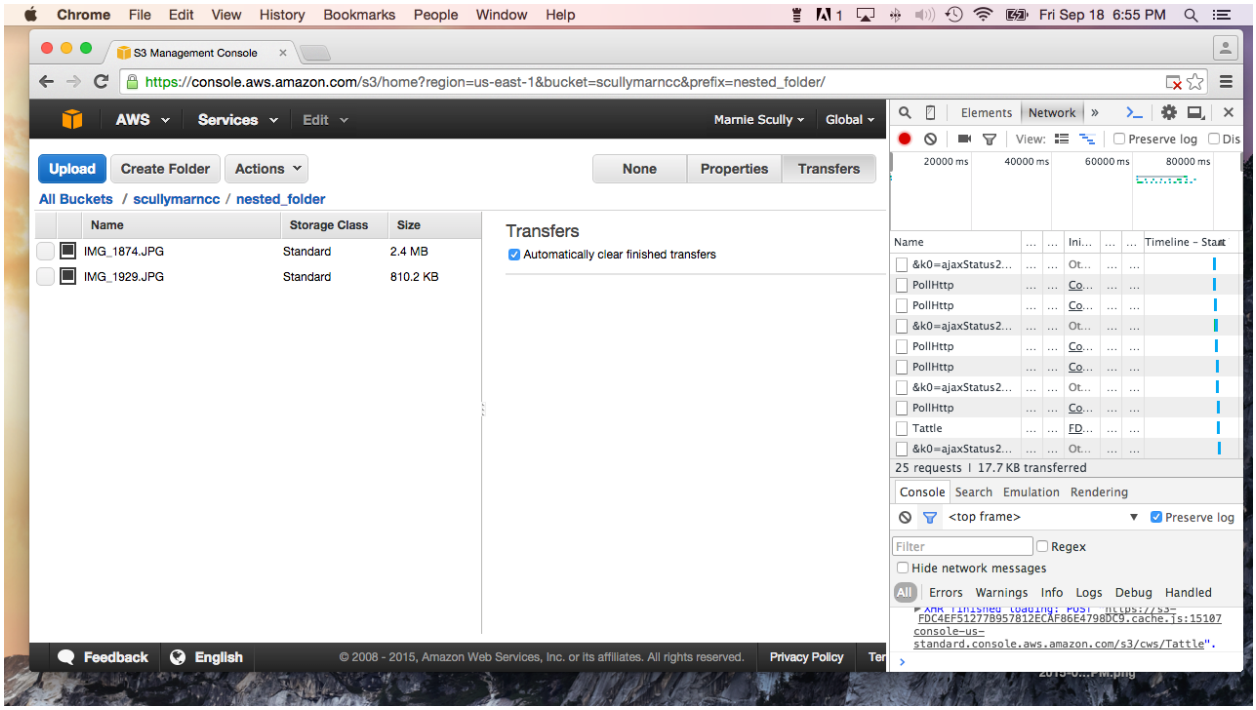


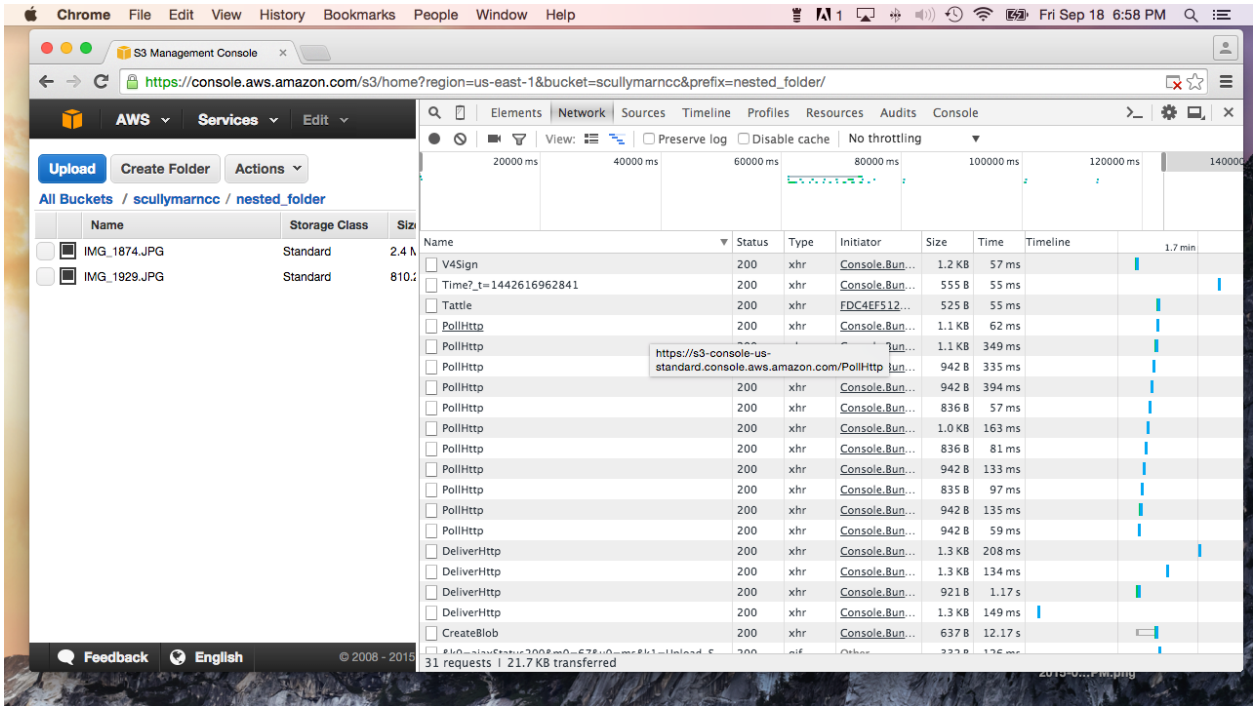
Capture your traffic showing the upload.



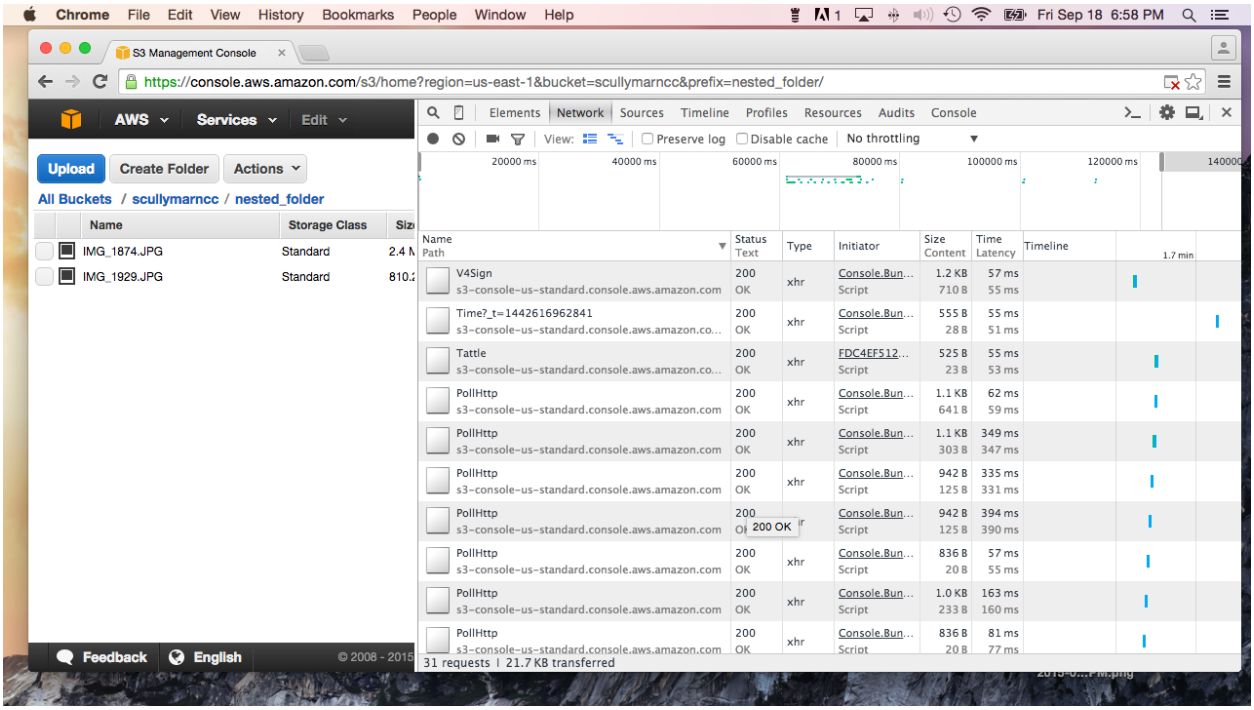


Stop your monitoring. Take a screen snap of your traffic.





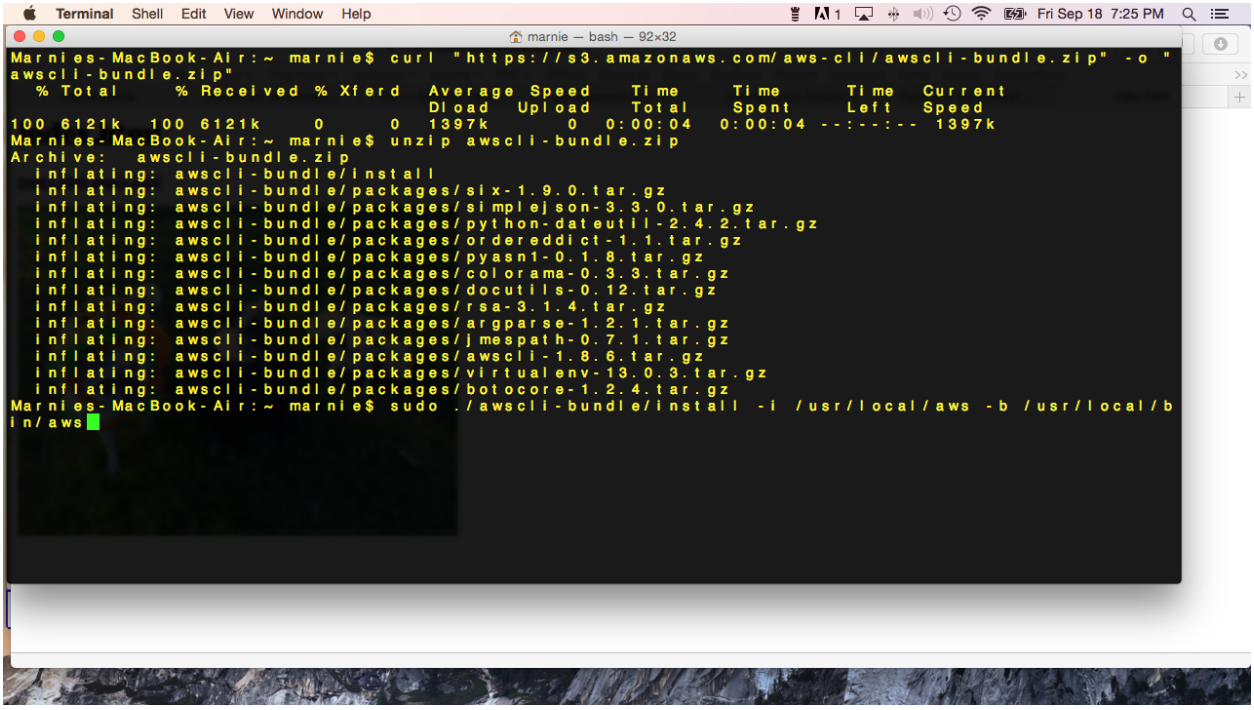
Show your file in your bucket too.

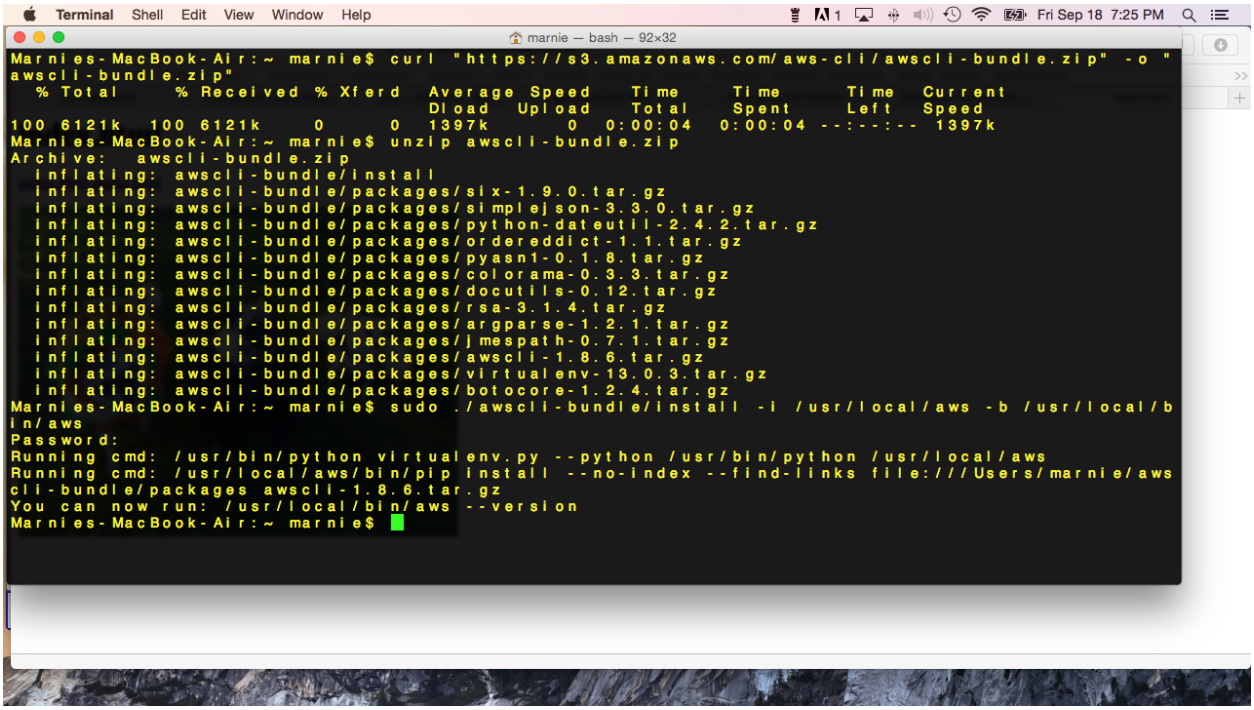


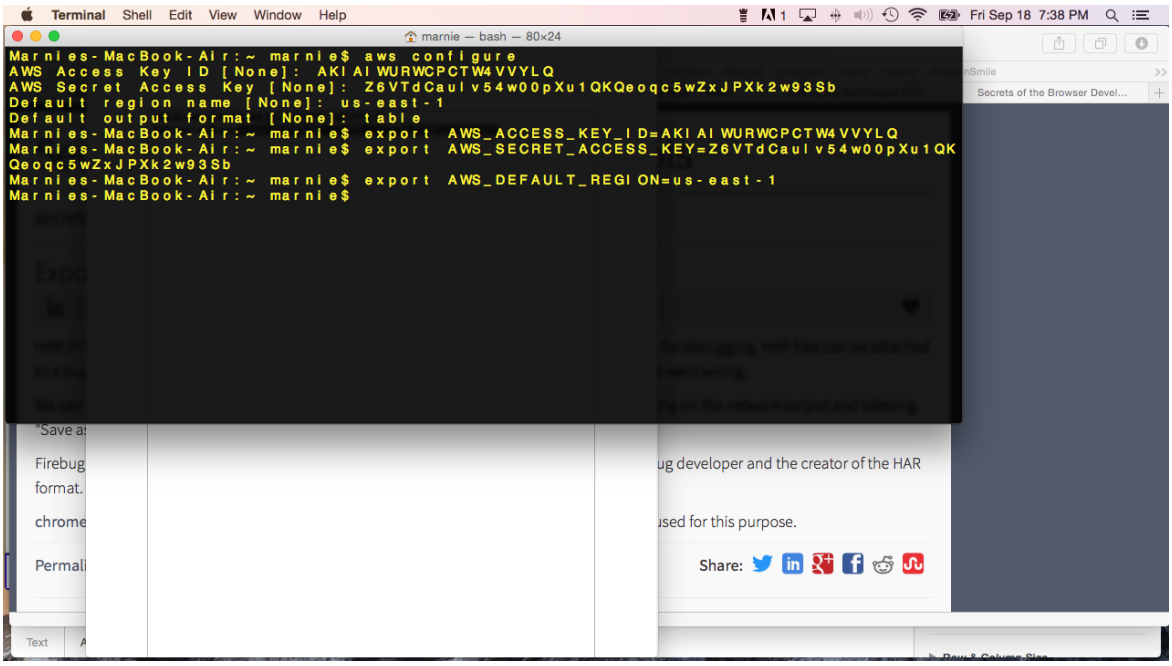
Problem 4:

Verify Java installed

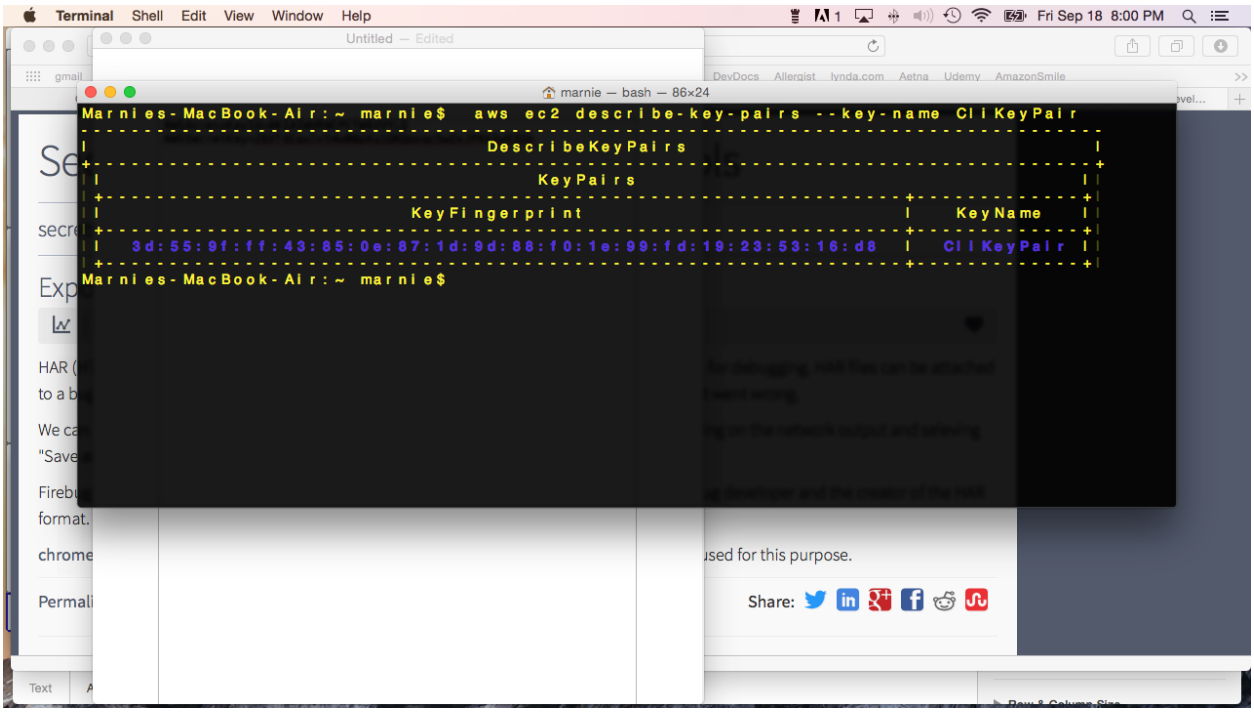
```
jMarnies-MacBook-Air:~ marnie$
java version "1.8.0_40"
Java(TM) SE Runtime Environment
Java HotSpot(TM) 64-Bit Server
Marnies-MacBook-Air:~ marnie$
```


Terminal Shell Edit View Window Help
Fri Sep 18 7:25 PM
marnie — bash — 92×32
Marnies-MacBook-Air:~ marnie$ curl "https://s3.amazonaws.com/aws-cli/awscli-bundle.zip" -o "awscli-bundle.zip"
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 6121k 100 6121k 0 0 1397k 0 0:00:04 0:00:04 --:--:-- 1397k
Marnies-MacBook-Air:~ marnie$ unzip awscli-bundle.zip
Archive: awscli-bundle.zip
inflating: awscli-bundle/install
inflating: awscli-bundle/packages/six-1.9.0.tar.gz
inflating: awscli-bundle/packages/simplejson-3.3.0.tar.gz
inflating: awscli-bundle/packages/python-dateutil-2.4.2.tar.gz
inflating: awscli-bundle/packages/ordereddict-1.1.tar.gz
inflating: awscli-bundle/packages/pyasn1-0.1.8.tar.gz
inflating: awscli-bundle/packages/colorama-0.3.3.tar.gz
inflating: awscli-bundle/packages/docutils-0.12.tar.gz
inflating: awscli-bundle/packages/rsa-3.1.4.tar.gz
inflating: awscli-bundle/packages/argparse-1.2.1.tar.gz
inflating: awscli-bundle/packages/jmespath-0.7.1.tar.gz
inflating: awscli-bundle/packages/awscli-1.8.6.tar.gz
inflating: awscli-bundle/packages/virtualenv-13.0.3.tar.gz
inflating: awscli-bundle/packages/botocore-1.2.4.tar.gz
Marnies-MacBook-Air:~ marnie$ sudo ./awscli-bundle/install -i /usr/local/aws -b /usr/local/bin/aws

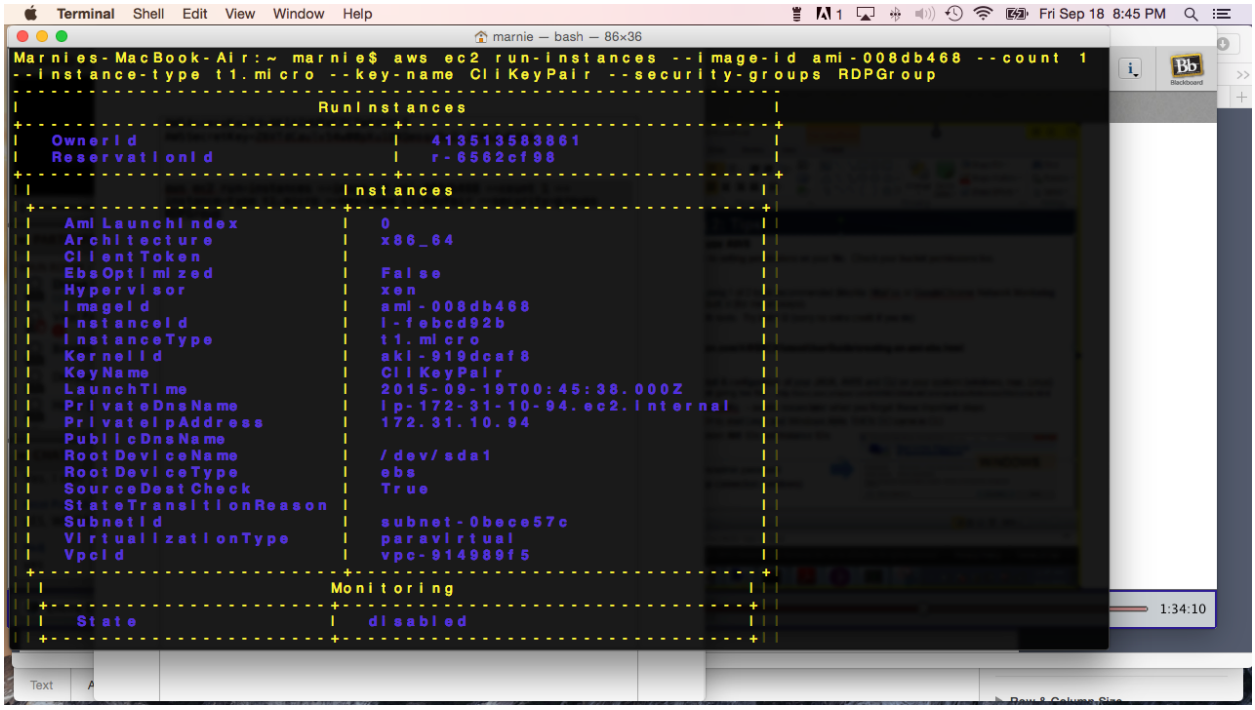

Terminal Shell Edit View Window Help
Fri Sep 18 7:25 PM
marnie — bash — 92×32
Marnies-MacBook-Air:~ marnie$ curl "https://s3.amazonaws.com/aws-cli/awscli-bundle.zip" -o "awscli-bundle.zip"
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 6121k 100 6121k 0 0 1397k 0 0:00:04 0:00:04 --:--:-- 1397k
Marnies-MacBook-Air:~ marnie$ unzip awscli-bundle.zip
Archive: awscli-bundle.zip
inflating: awscli-bundle/install
inflating: awscli-bundle/packages/six-1.9.0.tar.gz
inflating: awscli-bundle/packages/simplejson-3.3.0.tar.gz
inflating: awscli-bundle/packages/python-dateutil-2.4.2.tar.gz
inflating: awscli-bundle/packages/ordereddict-1.1.tar.gz
inflating: awscli-bundle/packages/pyasn1-0.1.8.tar.gz
inflating: awscli-bundle/packages/colorama-0.3.3.tar.gz
inflating: awscli-bundle/packages/docutils-0.12.tar.gz
inflating: awscli-bundle/packages/rsa-3.1.4.tar.gz
inflating: awscli-bundle/packages/argparse-1.2.1.tar.gz
inflating: awscli-bundle/packages/jmespath-0.7.1.tar.gz
inflating: awscli-bundle/packages/awscli-1.8.6.tar.gz
inflating: awscli-bundle/packages/virtualenv-13.0.3.tar.gz
inflating: awscli-bundle/packages/botocore-1.2.4.tar.gz
Marnies-MacBook-Air:~ marnie$ sudo ./awscli-bundle/install -i /usr/local/aws -b /usr/local/bin/aws
Password:
Running cmd: /usr/bin/python virtualenv.py --python /usr/bin/python /usr/local/aws
Running cmd: /usr/local/aws/bin/pip install --no-index --find-links file:///Users/marnie/awscli-bundle/packages awscli-1.8.6.tar.gz
You can now run: /usr/local/bin/aws --version
Marnies-MacBook-Air:~ marnie$

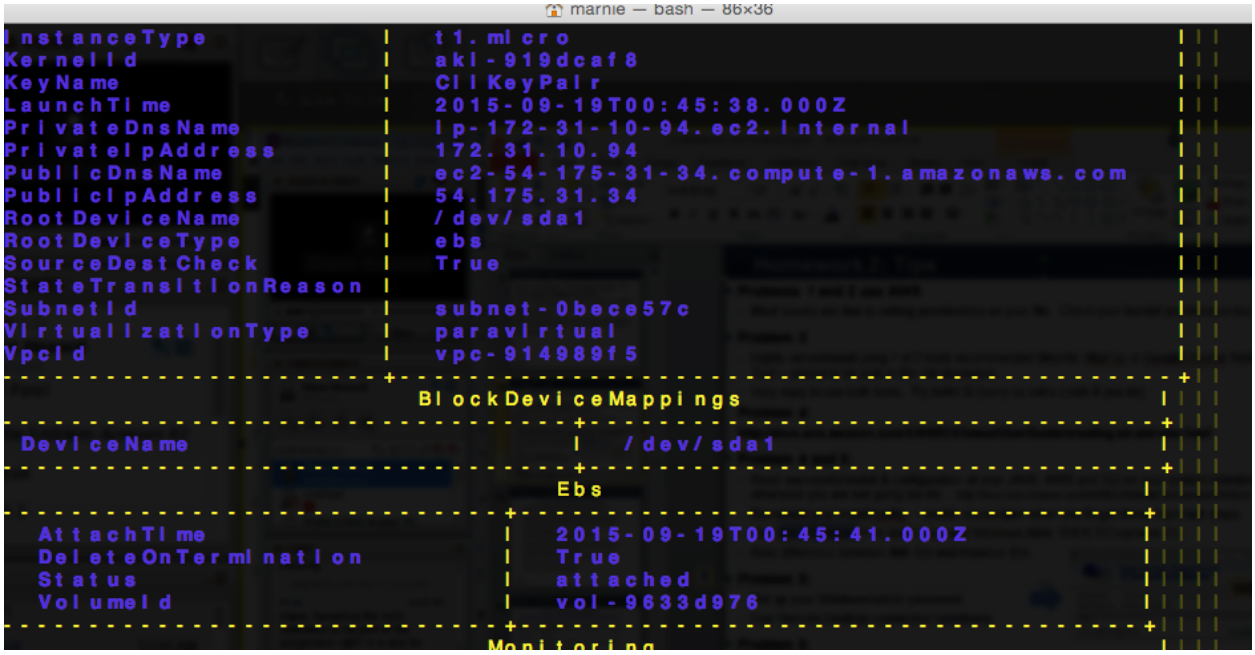


Create a new key pair using AWS command line (CLI) tools.



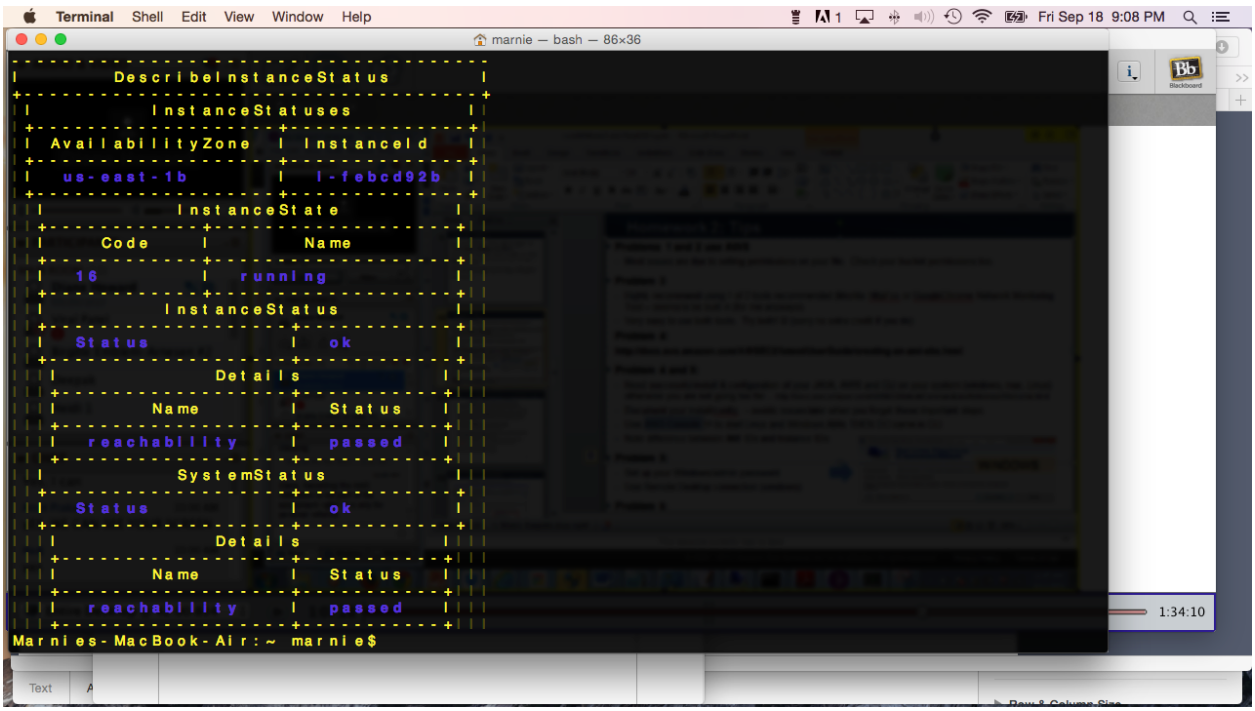
Subsequently, use that new key to create a new Linux instance ami-008db468 .
Your instance should be of the EBS root type.



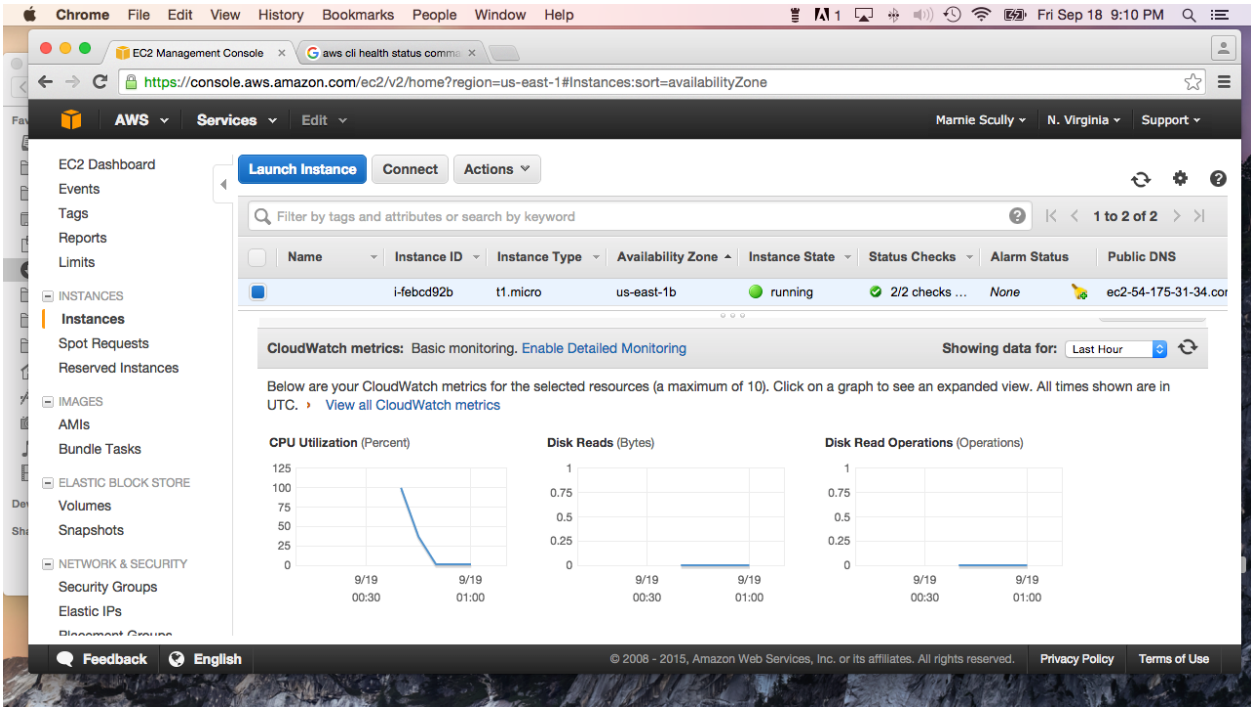


Tell us in which region you are working in. (us-east-1b)

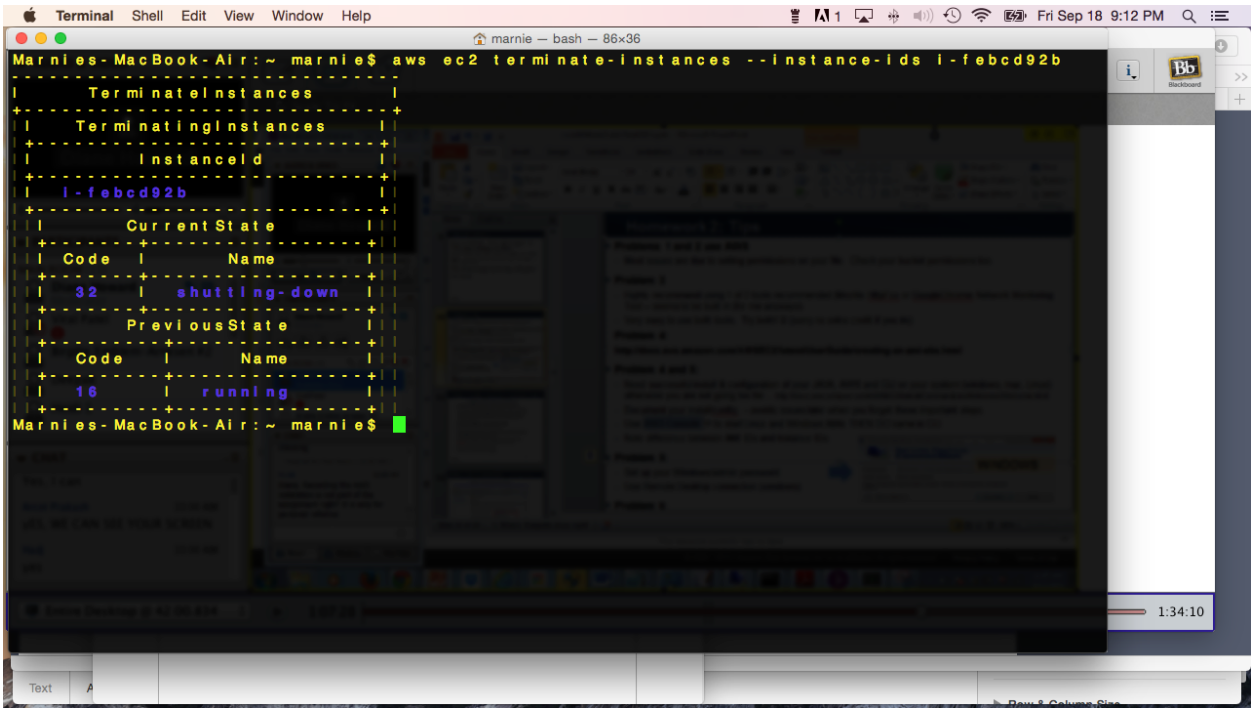
While the instance is starting, inquire about its health and status using AWS CLI tools.



Also check the status of the instance in your AWS Console.

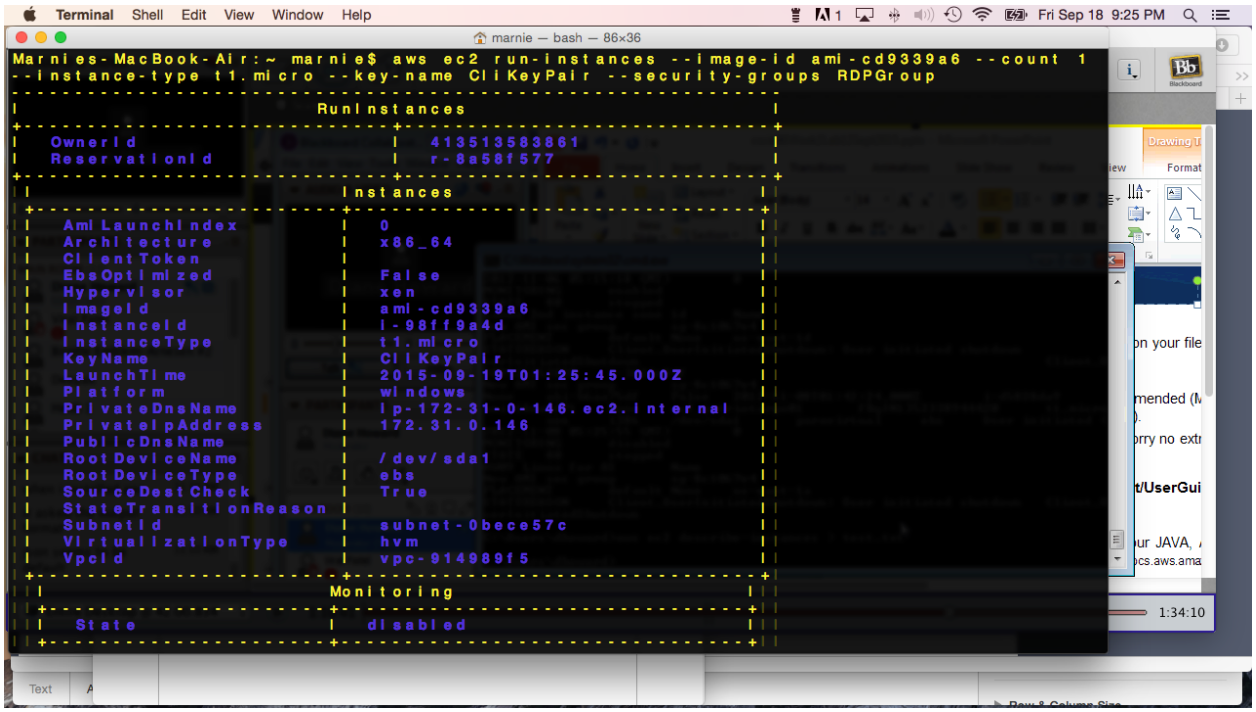


Terminate your instance, using AWS CLI Tools.

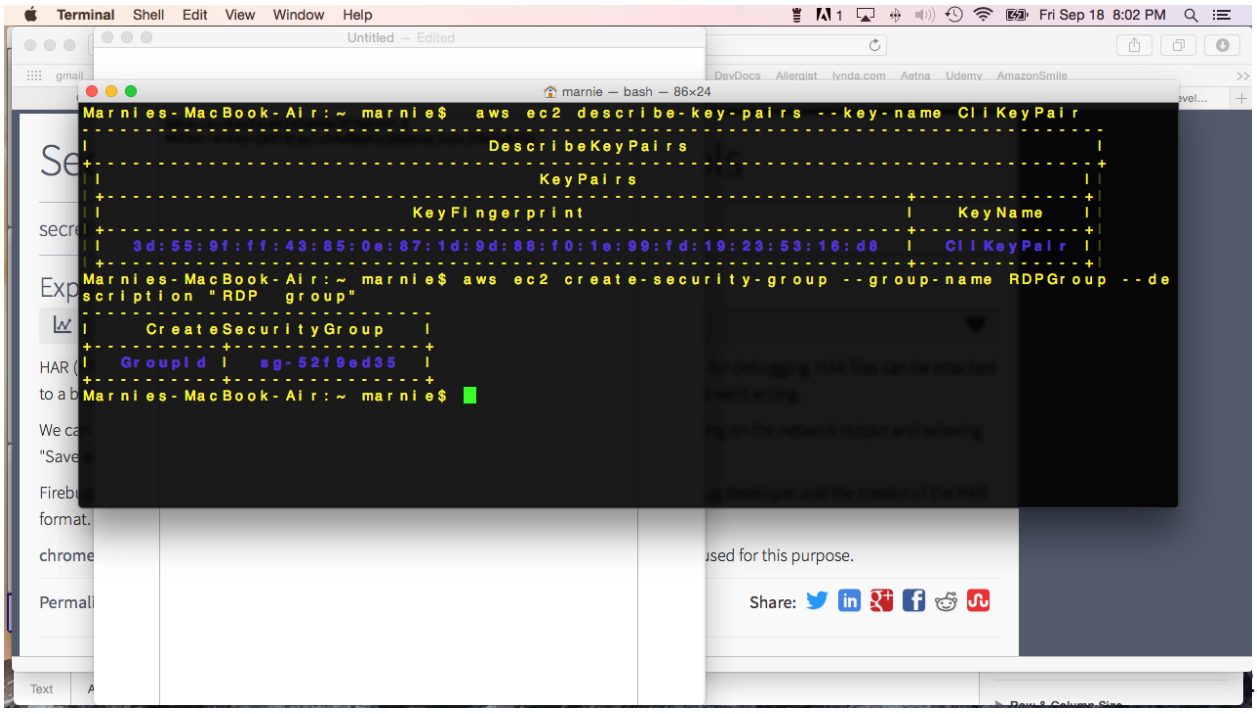


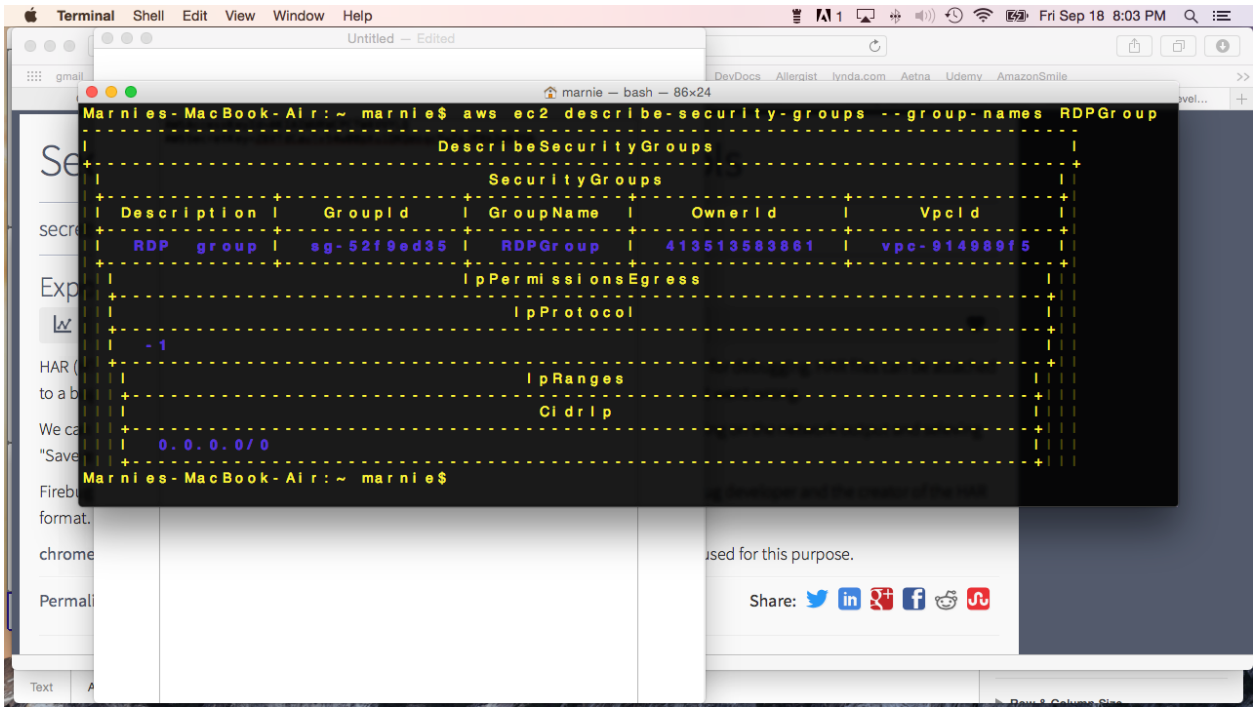
Problem 5:

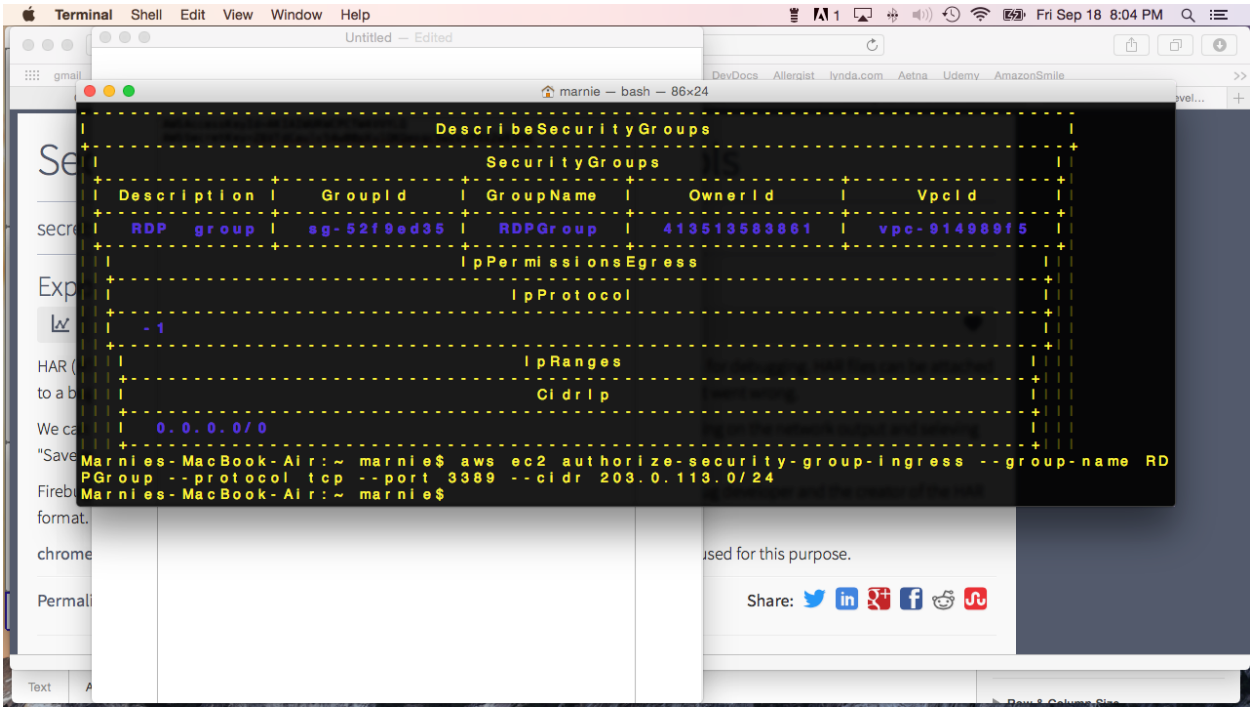
Create a Windows instance ami-cd9339a6 with: 64-bit, root device type: EBS (or you can use Instance store), t1.micro using AWS Command Line tools.

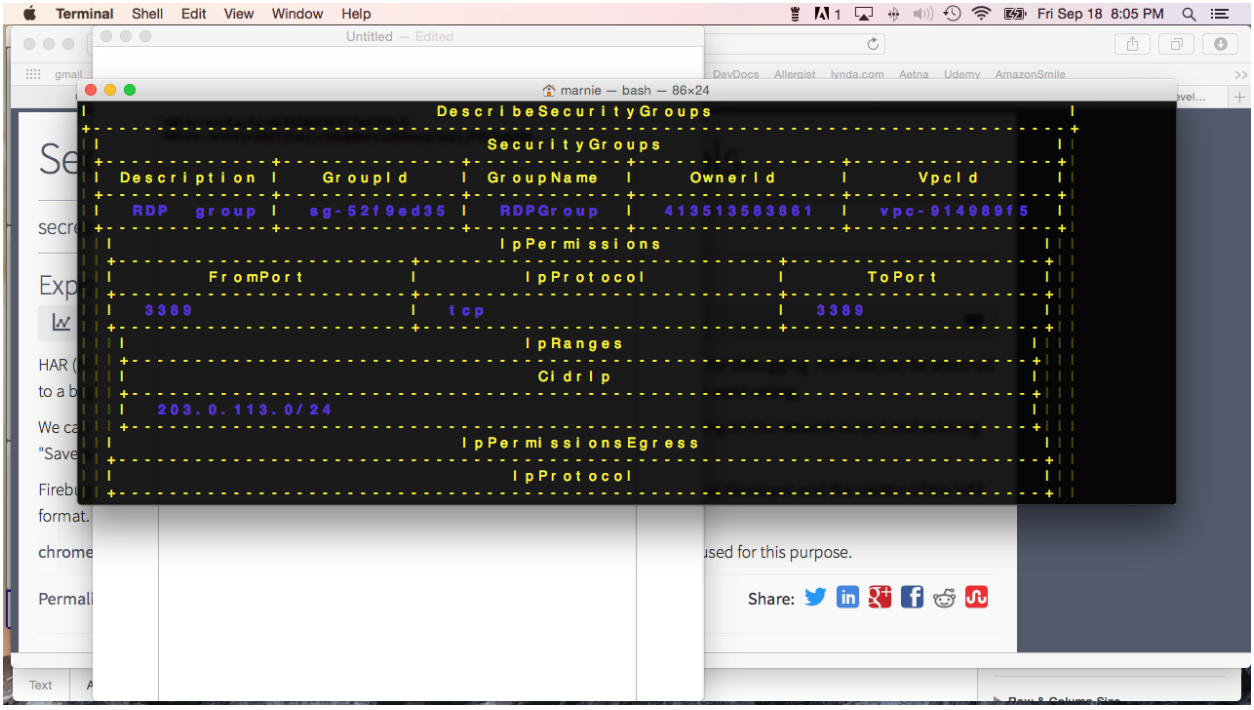


Add a policy for RDP 3389 if it is not defaulted in security group for that AMI.

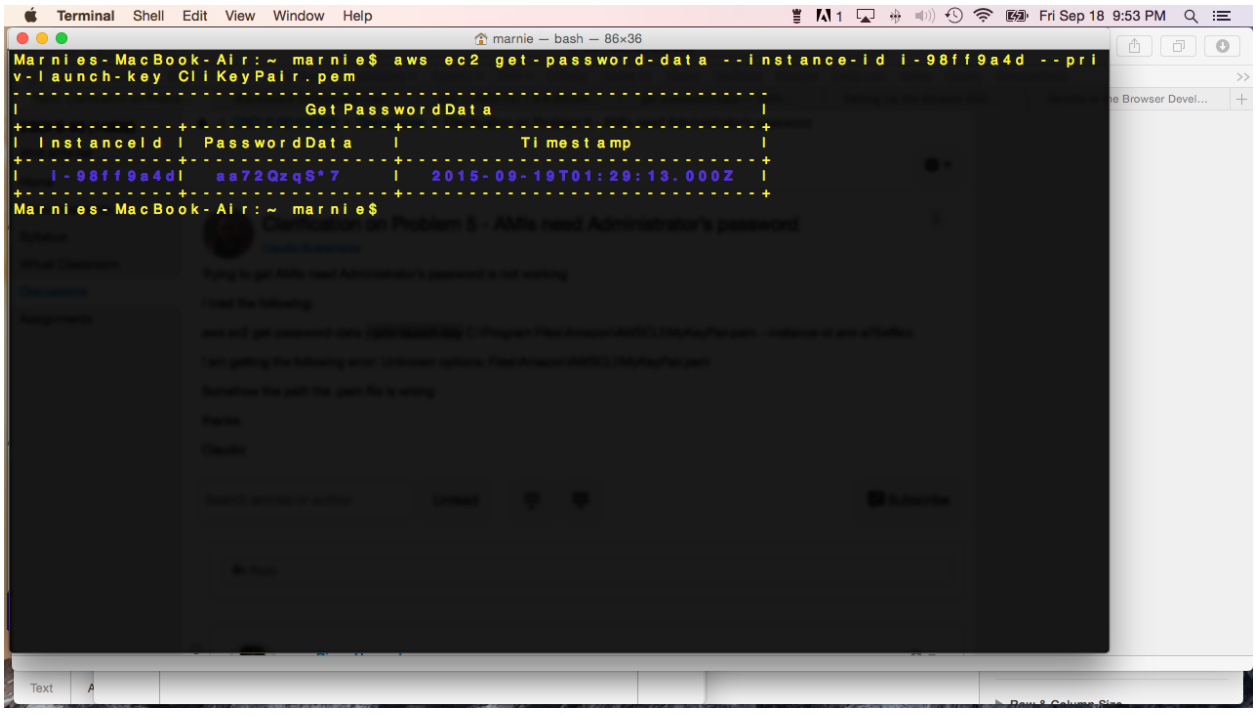



Terminal Shell Edit View Window Help
Fri Sep 18 8:03 PM
marnie — bash — 86×24
Marnies-MacBook-Air:~ marnie$ aws ec2 describe-security-groups --group-names RDPGroup
DescribeSecurityGroups
SecurityGroups
Description | GroupId | GroupName | OwnerId | VpcId
RDP group | sg-52f9ed35 | RDPGroup | 413513583861 | vpc-914989f5
IpPermissionsEgress
IpProtocol
-1
IpRanges
CidrIp
0.0.0.0/0
Marnies-MacBook-Air:~ marnie$

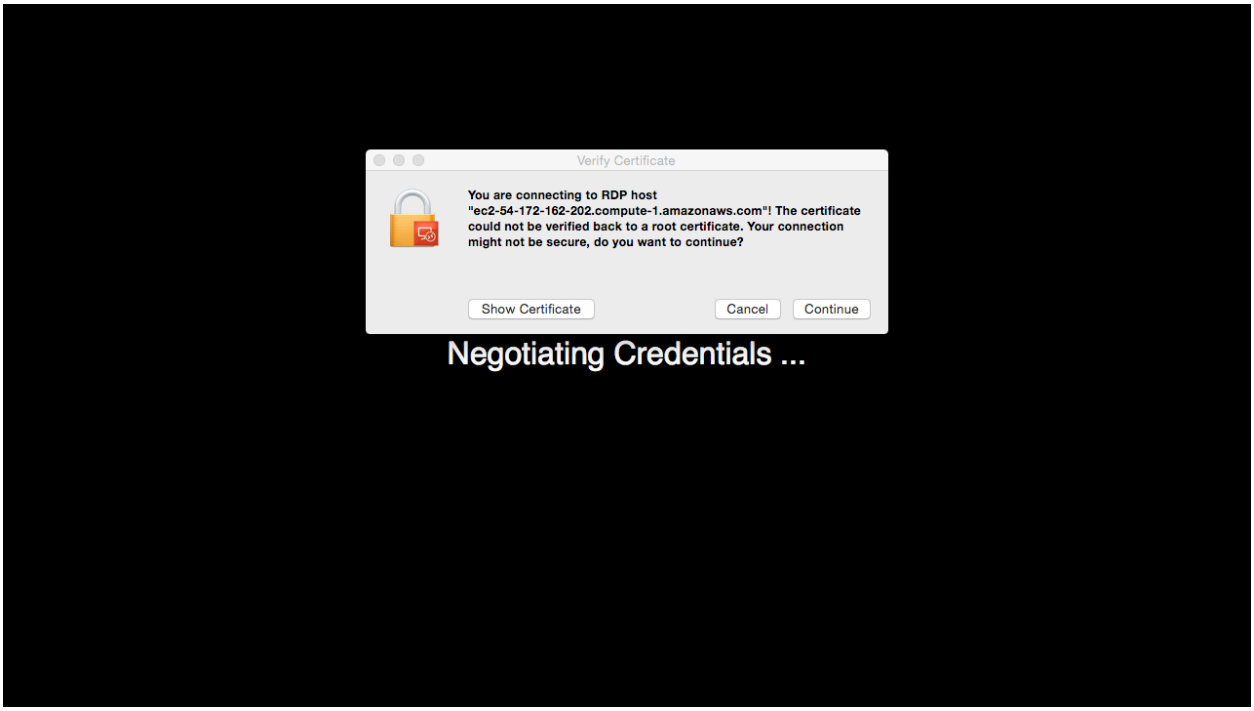

Terminal Shell Edit View Window Help
Fri Sep 18 8:04 PM
marnie — bash — 86×24
DescribeSecurityGroups
SecurityGroups
Description | GroupId | GroupName | OwnerId | VpcId
RDP group | sg-52f9ed35 | RDPGroup | 413513583861 | vpc-914989f5
IpPermissionsEgress
IpProtocol
-1
IpRanges
CidrIp
0.0.0.0/0
Marnies-MacBook-Air:~ marnie$ aws ec2 authorize-security-group-ingress --group-name RDPGroup --protocol tcp --port 3389 --cidr 203.0.113.0/24
Marnies-MacBook-Air:~ marnie$



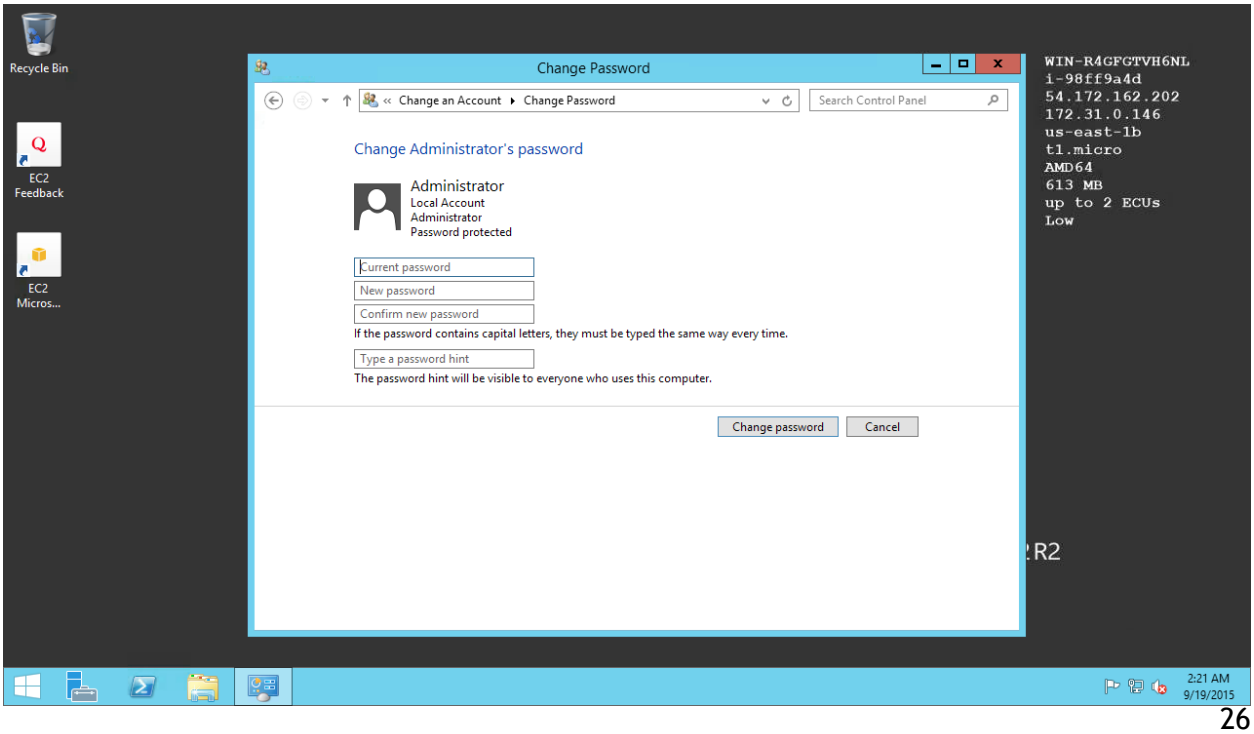
Request remote password using AWS CLI tools.



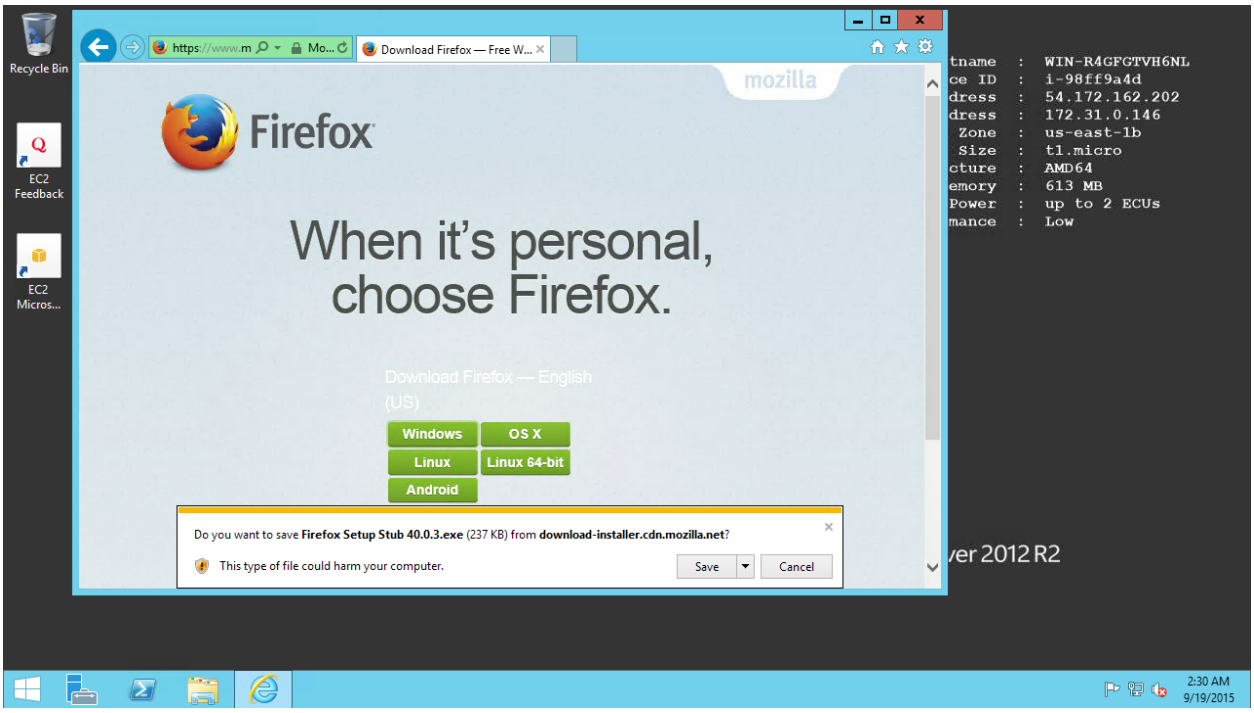
You have to use Remote Desktop Protocol and port 3389 to connect to your instance.

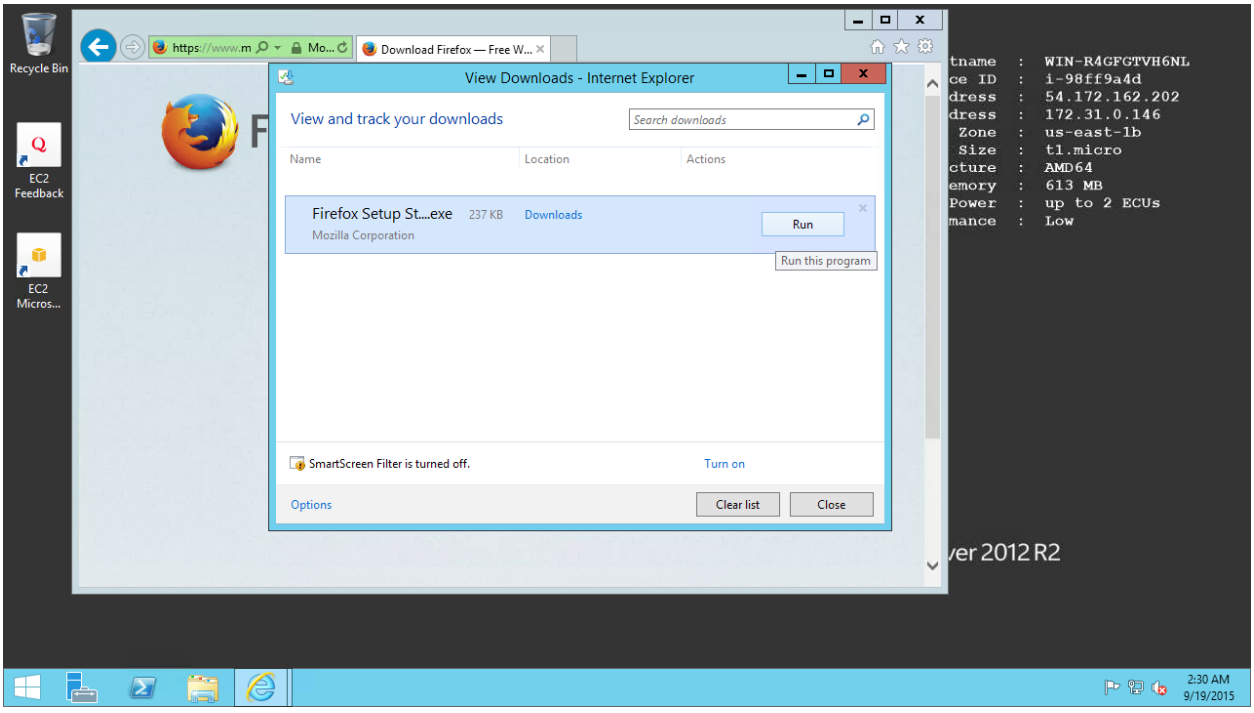


Change the password to something you could remember.

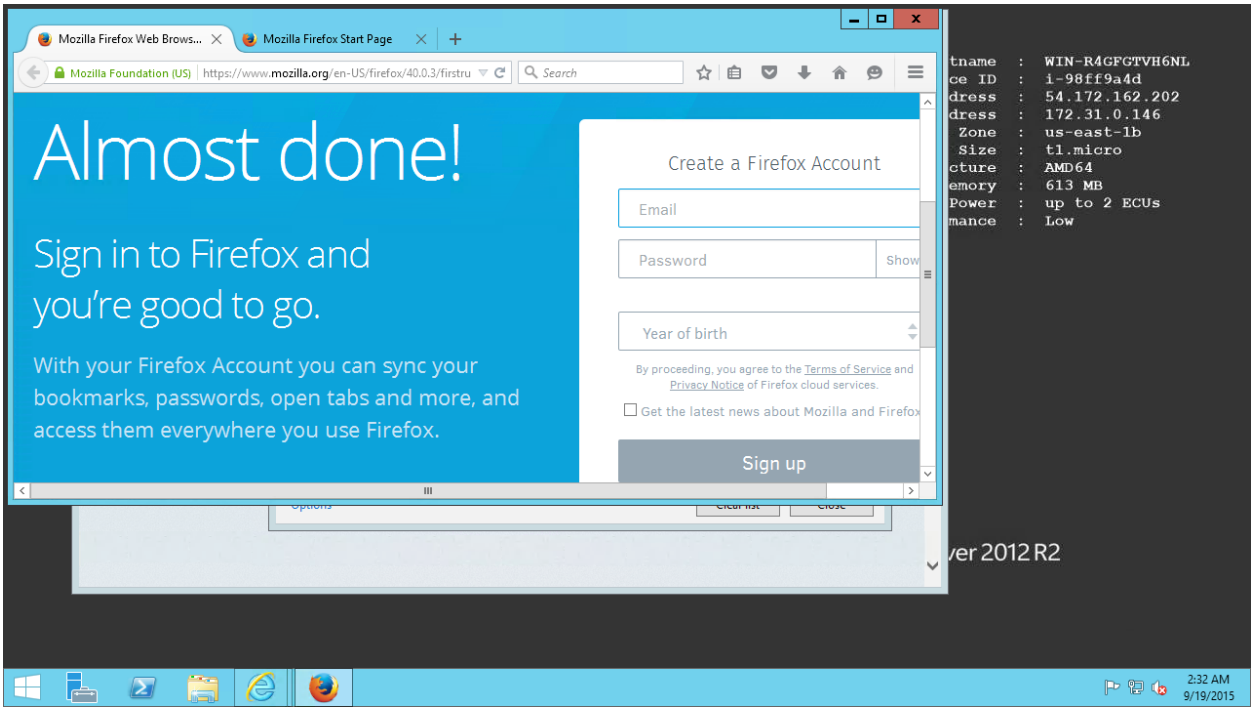


Next, open a browser and download any software you wish.

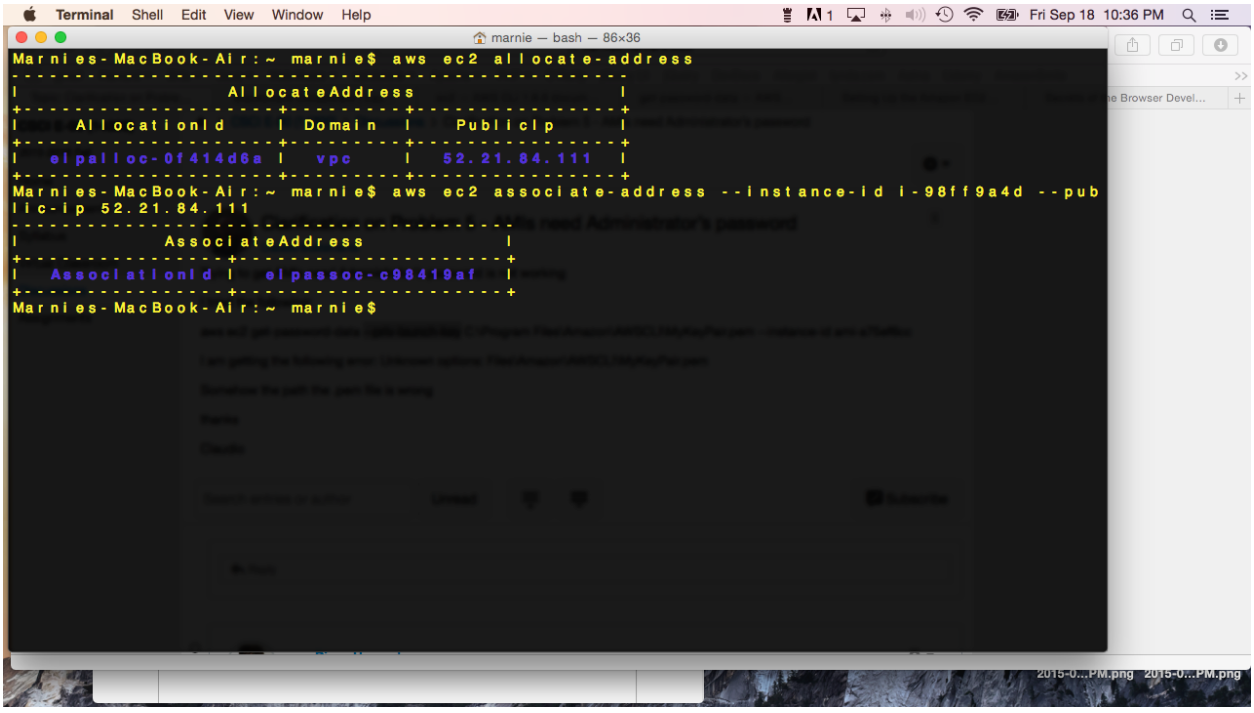




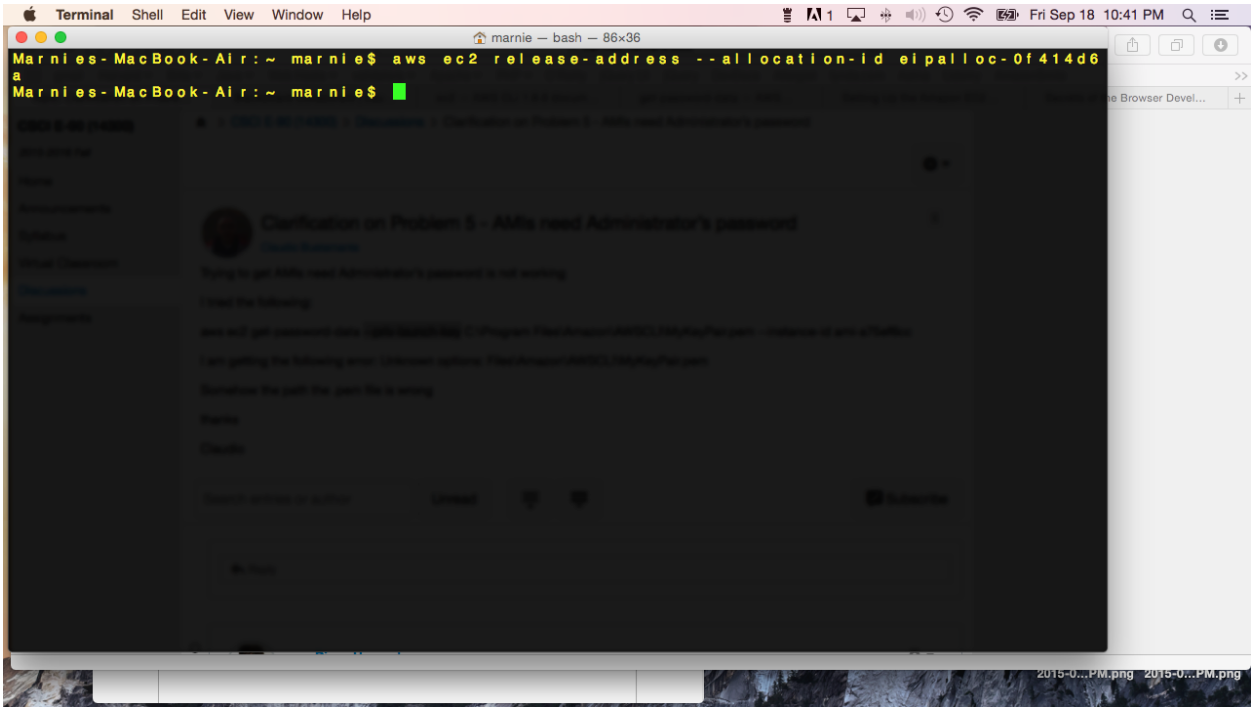
Demonstrate your added software in a screen shot.



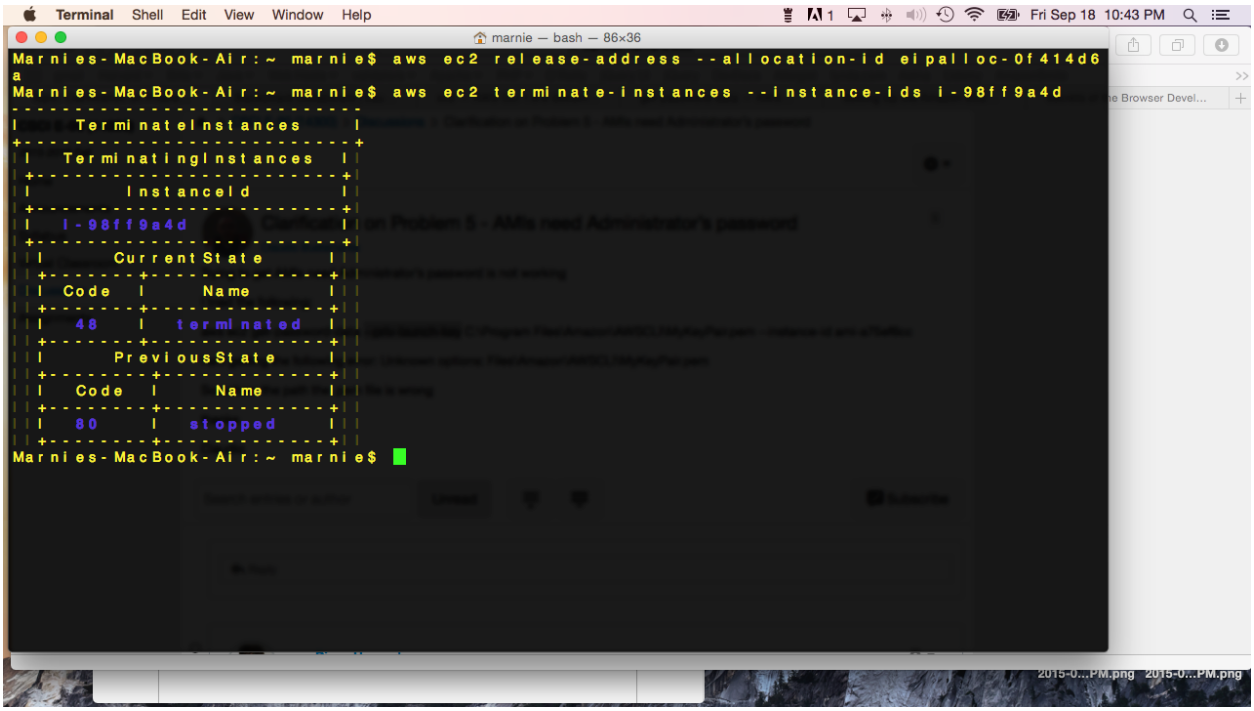
Acquire an Elastic IP address (could you do it with AWS Tools?) and associate it with your instance.



Release your Elastic IP address.

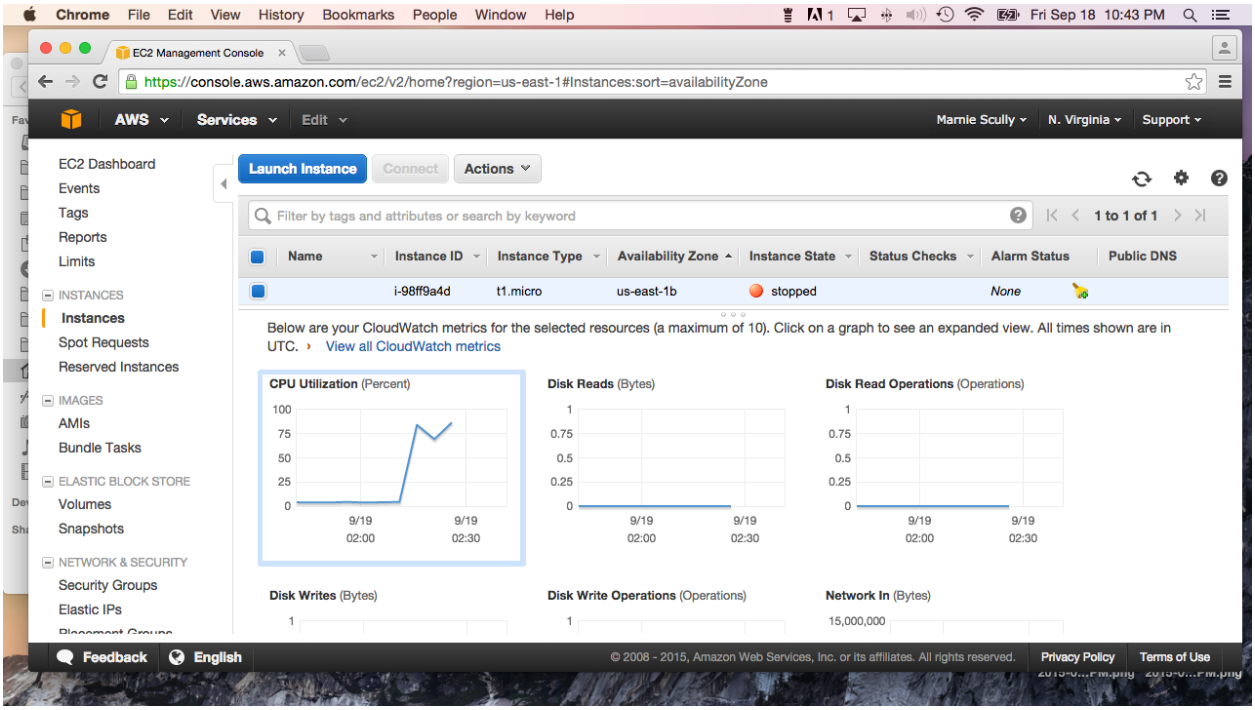


Terminate your instance using AWS CLI Tools**.** Capture all dialogues.



Problem 6:

Show your Instances are stopped from AWS Console.



Show your Month-to-Date Top Services by Spend (cost amounts) for your Amazon Services (EC2, S3, …) from your Billing & Cost Management Page.