

CSE 6331- Cloud Computing

Spring 2017

### Assignment 3: Amazon Web Services – EC2 & S3

In this assignment you will configure EC2 as the webserver that host the python flask application that can store, list and delete images stored in S3.

You need to initially authenticate the user by using the file (contains authorized users to use the service) stored in S3. After authorizing the user, user should be able to upload, download and delete the images to and from S3.

Create an AWS account at <https://aws.amazon.com/>



#### Login Credentials

Use the form below to create login credentials that can be used for AWS as well as Amazon.com.

My name is:

My e-mail address is:

Type it again:

note: this is the e-mail address that we will use to contact you about your account

Enter a new password:

Type it again:

Type the characters you see in this image.

Image: 

Type characters:

[Having trouble or sight impaired?](#)

Launch the EC2 instance after creating the account.

You can follow the tutorial here to create and connect to the EC2 instance

[http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2\\_GetStarted.html#ec2-launchinstance\\_linux](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EC2_GetStarted.html#ec2-launchinstance_linux)

Make sure you add the following rules in the inbound rules of the security group.

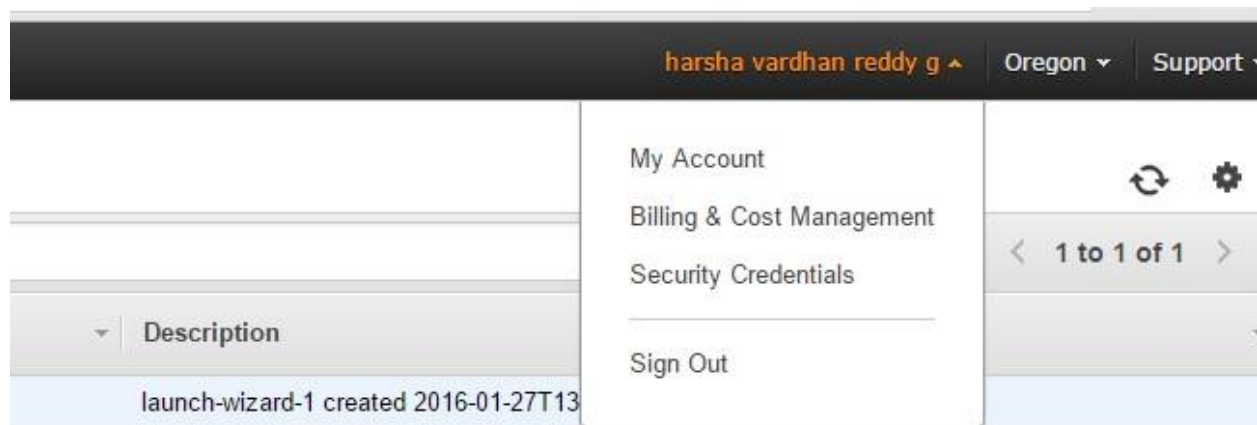
Edit inbound rules

Type	Protocol	Port Range	Source
HTTP	TCP	80	Anywhere 0.0.0.0/0
SSH	TCP	22	My IP

Install AWS Command Line interface (CLI) –

<http://docs.aws.amazon.com/cli/latest/userguide/installing.html>

You can download the root user's access id and secret as follows: Click on your account



Select Security Credentials and then Click on to security credentials and then expand Access Keys. You can download the root account Access Key ID and Secret Access.

+	Password
+	Multi-Factor Authentication (MFA)
+	Access Keys (Access Key ID and Secret Access Key)
+	CloudFront Key Pairs
+	X.509 Certificates
+	Account Identifiers

For security reasons it is advised to create IAM users than to use root credentials. You can read more about IAM users here -

[http://docs.aws.amazon.com/IAM/latest/UserGuide/introduction\\_identitymanagement.html](http://docs.aws.amazon.com/IAM/latest/UserGuide/introduction_identitymanagement.html)

Configuring EC2 as web server:

The following blog helps you to set up EC2 as the web server to run the python flask app.

<http://www.datasciencebytes.com/bytes/2015/02/24/running-a-flask-app-on-aws-ec2/>

Boto 3 – Boto is AWS SDK for python, which allows developers to write software that make use of AWS services like EC2 and S3. Boto interface is used to connect the S3 (Simple Storage Service) from your application to upload, download and list images stored in S3.

Refer to the following upload Boto 3 Documentation - <https://boto3.readthedocs.org/>