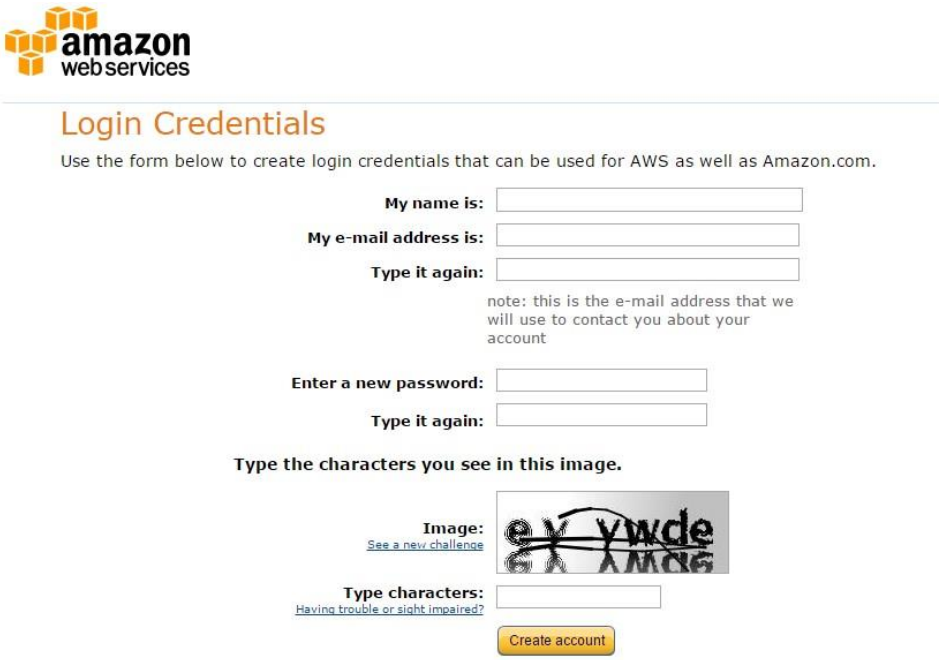
CSE 6331- Cloud Computing
Spring 2017
Assignment 3: Amazon Web Services – EC2 & S3

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.

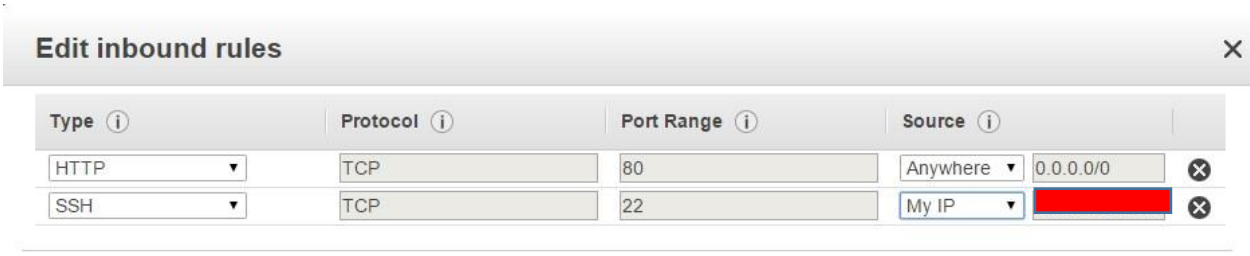
Create an AWS account at https://aws.amazon.com/



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

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



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.

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

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/