

ENPM665 Homework #1 – AWS Account setup

Version 2.2 – August 30th 2022

Estimated time to complete this assignment: 1 hour.

NOTE: OSX users may want to follow this guide on setting up a “sane” Python environment for OSX: <https://www.digitalocean.com/community/tutorials/how-to-install-python-3-and-set-up-a-local-programming-environment-on-macos>

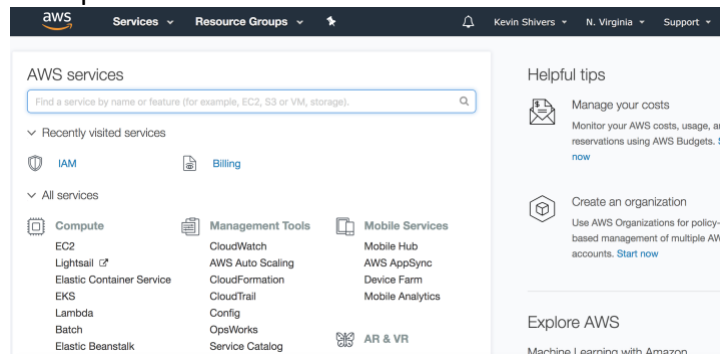
NOTE: Windows user may want to follow this guide on setting up a “sane” Python environment for Windows: <http://docs.python-guide.org/en/latest/starting/install3/win/#install3-windows>

NOTE: Linux users – as you were. 😊

1. Create an AWS Account

1. Open a web browser and go to <https://aws.amazon.com/> and click the “**Create an AWS account**” button at the top right.
2. Follow the steps to create your account.
3. Take a screenshot of the main screen of your AWS Console showing your name at the top right, you’ll use this as part of the deliverable for the homework

Example:



1a. Optional (but highly recommended) – Enable MFA on your AWS root account.

1. In IAM under “**Security Status**” click “**Activate MFA on your root account**” and then the “**Manage MFA**” button

Security Status 2 out of 5 complete.

Delete your root access keys

Activate MFA on your root account

Activate multi-factor authentication (MFA) on your AWS root account to add another layer of protection to help keep your account secure. [Learn More](#)

[Manage MFA](#)

- Select the option. If you want to use the Duo app like you use for UMD's MFA select "virtual MFA device" and then "Next Step"

Manage MFA device

Select the type of MFA device to activate:

☒ A virtual MFA device
☐ A hardware MFA device


For more information about supported MFA devices, see [AWS Multi-Factor Authentication](#).

[Cancel](#) [Next Step](#)

- Review the message on the next screen and then click "**Next Step**"
- Scan the QR code in the screen with Duo (or another app that supports TOTP) and then enter the Authentication codes and finally click "**Activate virtual MFA**"

Manage MFA device

If your virtual MFA application supports scanning QR codes, scan the following QR code with your smartphone's camera.



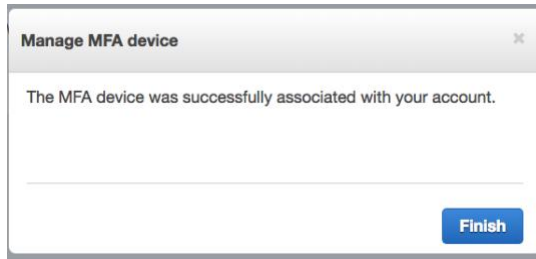
[Show secret key for manual configuration](#)
 After the application is configured, enter two consecutive authentication codes in the boxes below and choose **Activate virtual MFA**.

Authentication code 1

Authentication code 2

[Cancel](#) [Previous](#) [Activate virtual MFA](#)

- If you did everything correctly you'll get a message with a "**Finish**" button at the end. Congrats!



NOTE: If you lose/forget your MFA device you'll need to contact AWS Support to have MFA turned off. Don't lose/forget your device!

2. Add user to IAM

(If you run into issues AWS's documentation for this is here:

https://docs.aws.amazon.com/IAM/latest/UserGuide/getting-started_create-admin-group.html)

1. In AWS Console click **"IAM"** -> **"Groups"** -> **"Create New Group"**
2. Select a Group Name. I will use **"Admins"** and click **"Next Step"**
3. Attach a Policy. Since this is for our CLI use we'll want Administrator Access so click **"Administrator Access"** and then click **"Next Step"**

Attach Policy

Select one or more policies to attach. Each group can have up to 10 policies attached.

Filter: Policy Type ▾		Filter	Showing 356 results		
	Policy Name ↕	Attached Entities ↕	Creation Time ↕	Edited Time ↕	
<input checked="" type="checkbox"/>	AdministratorAccess	0	2015-02-06 13:39 EDT	2015-02-06 13:39 EDT	

4. Review and then click **"Create Group"**
5. In the IAM section of the AWS Console click **"Users"** -> **"Add user"**
6. Give the user a name. I'll use **"kts"**
7. Select the access type. For the CLI we'll use the **"Programmatic access"**

Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name*

[Add another user](#)

Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

- Access type* ☒ **Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.
- ☐ **AWS Management Console access**
Enables a **password** that allows users to sign-in to the AWS Management Console.

8. Click **"Next: Permissions"**
9. Select the **"Admins"** group to add your user to the Admins group.

Set permissions for kts

Add user to group

Copy permissions from existing user

Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. [Learn more](#)

Add user to group

Create group Refresh

Search

Showing 1 result

Group	Attached policies
Admins	AdministratorAccess

10. Click **“Next: Review”**
11. Review and click **“Create user”**
12. You can view the Access key ID and Secret access key. You can also download them as a CSV. We’ll want to add the Access key and secret key into the AWS CLI.

Your credentials will look something like:

Access key ID: AKIAIOSFODNN7EXAMPLE

Secret access key: wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY

3. Install the AWS CLI (command line interface) tool

1. Follow the steps here to install the CLI tool: <https://aws.amazon.com/cli/> Windows, Mac, and Linux are all supported.
2. Configure the AWS CLI tool to access your AWS account. Steps: <https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-welcome.html>

Example:

```
[oitsec:Cloud kts$ aws configure
AWS Access Key ID [None]: AKIAINS7TJAJUBUW5UUQ
AWS Secret Access Key [None]: 
Default region name [None]: us-east-1
Default output format [None]: text
oitsec:Cloud kts$
```

aws configure will save what you enter into **~/.aws/config** and **~/.aws/credentials**

3. To confirm everything is set up correctly run the command **aws iam list-users**
4. **Take a screenshot of the results.** You’ll submit that as part of the deliverable for this homework.

Example:

```
[oitsec:Cloud kts$ aws iam list-users
USERS    arn:aws:iam::425398327873:user/kts    2018-06-29T20:47:38Z    /    AIDAICC73Q4SSMW6YGFA2    kts
oitsec:Cloud kts$
```

Deliverable:

Provide screenshots of the following (hopefully you took them during the steps above.)

1. The main screen of your AWS Console showing your name at the top right
2. A screenshot of the output from running **`aws iam list-users`**

Please copy and paste the screenshots into a single document (Word .docx or PDF) and upload the .docx/PDF. Don't forget to check your work after you submit the assignment to verify it was correctly submitted!