


Team member	Sisi Zhang, Harish Ram
Login into you AWS account Do not use your root account!	<div data-bbox="709 331 865 428"></div> <div data-bbox="709 493 1073 540"><h3>Sign in as IAM user</h3></div> <div data-bbox="709 578 1157 610"><p>Account ID (12 digits) or account alias</p></div> <div data-bbox="716 623 1247 678"><input type="text" value="430782206656"/></div> <div data-bbox="709 717 896 748"><p>IAM user name</p></div> <div data-bbox="716 761 1247 818"><input type="text" value="admin-user"/></div> <div data-bbox="709 857 837 888"><p>Password</p></div> <div data-bbox="716 901 1247 958"><input type="password" value="....."/></div> <div data-bbox="716 985 1247 1039"><input type="button" value="Sign in"/></div> <div data-bbox="709 1075 1026 1107"><p>Sign in using root user email</p></div> <div data-bbox="709 1127 919 1161"><p>Forgot password?</p></div>

Go to AWS Console, service IAM,
and select the user you want to
allow to create S3 from an EC2

Summary

User ARN arn:aws:iam::430782206656:user/admin-user 

Path /

Creation time 2021-09-13 22:01 EDT

Permissions

Groups (1)

Tags

Security credentials

Access Advisor

Sign-in credentials

Summary

• Console sign-in link: <https://430782206656.signin.aws.amazon.com/console> 

Console password Enabled (last signed in Today) | [Manage](#)

Assigned MFA device Not assigned | [Manage](#)

Signing certificates None 

Access keys

Use access keys to make programmatic calls to AWS from the AWS CLI, Tools for PowerShell, AWS SDKs, or direct AWS API calls. You can create, update, or delete access keys (active or inactive) at a time.


For your protection, you should never share your secret keys with anyone. As a best practice, we recommend frequent key rotation.


If you lose or forget your secret key, you cannot retrieve it. Instead, create a new access key and make the old key inactive. [Learn more](#)

Create access key

Access key ID	Created	Last used
	2021-09-13 22:01 EDT	N/A

Create an access key and keep in a safe place. You can download it as a csv file or copy and past both the access key ID and Secrete Access Key in a safe place


 **Success**
This is the **only** time that the secret access keys can be viewed or downloaded. You cannot recover them later. However, you can create new access keys at any time.

 Download .csv file


Access key ID	Secret access key
AKIAI44QH8DHBEXAMPLE	***** Show

Close

Then, select Services menu option EC2

 **Services** ▲


Search for services, features, marketplace products

 **Favorites**
Add favorites by clicking on the star next to the service name.

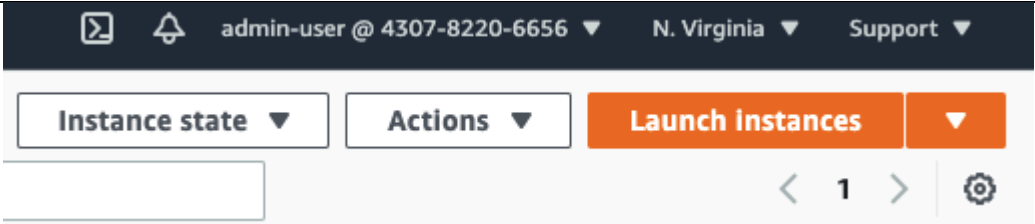
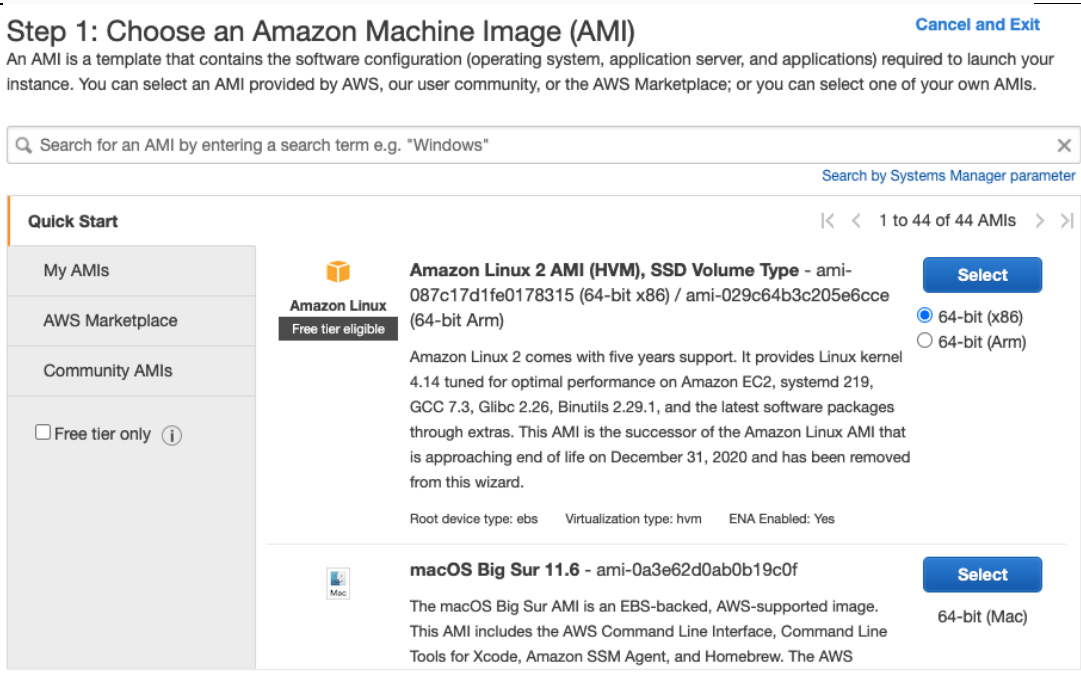

Recently visited

- EC2
- Console Home
- IAM
- VPC
- Billing
- S3

All services

 **Compute**

- ☆ EC2
Lightweight **F2** Virtual Servers in the Cloud
- Lambda
- Batch
- Elastic Beanstalk
- Serverless Application Repository
- AWS Outposts
- EC2 Image Builder
- AWS App Runner

<p>Launch Instance. Make sure you are inside the US East (N Virginia) region</p>	 <p>The screenshot shows the top of the AWS Management Console. It includes a header with the user 'admin-user @ 4307-8220-6656', the region 'N. Virginia', and a 'Support' link. Below the header are buttons for 'Instance state', 'Actions', and 'Launch Instances'. A pagination bar shows '1' of 1 items.</p>
<p>select Amazon Linux AMI 2018.03.0</p>	 <p>The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' wizard. It includes a search bar, a 'Quick Start' sidebar with 'My AMIs', 'AWS Marketplace', and 'Community AMIs' (with a 'Free tier only' filter), and a list of AMIs. The 'Amazon Linux 2 AMI (HVM), SSD Volume Type' is selected, showing its ID 'ami-087c17d1fe0178315' and a 'Free tier eligible' badge. Below it, the 'macOS Big Sur 11.6' AMI is also visible.</p>
<p>Select Free Tier</p>	 <p>The screenshot shows the instance type selection screen. It features a sidebar with a blue square icon, and two main options: 't2' and 't2.micro'. The 't2.micro' option is highlighted with a green 'Free tier eligible' badge.</p>

Make sure you lunch it in the Public Subnet of the VPC you have created previous.

In addition, enable Auto-Assign Public IP. If you do not do so, you will not be able to access it later on via the internet.

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AML, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	<input type="text" value="1"/>	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	<input type="text" value="vpc-01e278157d7a9f202 Fall2021_"/>	Create new VPC
Subnet	<input type="text" value="subnet-0c8d58ff5ec2de184 Public subnet us-east"/> 249 IP Addresses available	Create new subnet
Auto-assign Public IP	<input type="text" value="Enable"/>	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	<input type="text" value="Open"/>	
Domain join directory	<input type="text" value="No directory"/>	Create new directory
IAM role	<input type="text" value="None"/>	Create new IAM role
Shutdown behavior	<input type="text" value="Stop"/>	
Stop - Hibernate behavior	<input type="checkbox"/> Enable hibernation as an additional stop behavior	

Accept the default configuration
of storage

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda	snap-0699a041095ac5492	8	General Purpose S	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypt
Add New Volume								

Name the EC2, e.g., PythonEc2

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key	Value	Instances	Volumes	Network Interfaces
(128 characters maximum)	(256 characters maximum)			
<input type="text" value="Name"/>	<input type="text" value="PythonEc2"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="button" value="Add another tag"/> (Up to 50 tags maximum)				

Create a new Security groups and make sure the following ports are open from anywhere

- 22 (port used by SSH)
- 80 (Port used by HTTP)
- 8888 (Port used by Jupiter)
- 443 (Port used by Boto)

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☒ Create a new security group
☐ Select an existing security group

Security group name:

Description:

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
HTTP	TCP	80	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
Custom TCP F	TCP	8888	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
Custom TCP F	TCP	443	Anywhere 0.0.0.0/0, ::/0	e.g. SSH for Admin Desktop
<input type="button" value="Add Rule"/>				

Review and lunch EC2

Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.



Improve your instances' security. Your security group, Fall2021SG, is open to the world.

Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.

You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

▼ AMI Details

[Edit AMI](#)

Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-087c17d1fe0178315

Free tier
eligible

Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is a...

Root Device Type: ebs Virtualization type: hvm

▼ Instance Type

[Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

If you do not have a PEM Key, create one.
If you have already one PEM key, use it.
Make sure you actually have it!

And Launch the instance

Select an existing key pair or create a new key pair ✕

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Choose an existing key pair ▼

Select a key pair

Fall2021KeyPair | RSA ▼

☒ I acknowledge that I have access to the corresponding private key file, and that without this file, I won't be able to log into my instance.

[Cancel](#) [Launch Instances](#)

Your new instance will show up in the EC2 dashboard

Copy the Public IP address.
You will need it to login into your new EC2

EC2 > Instances > i-0279abdc9401ed92f

Instance summary for i-0279abdc9401ed92f (PythonEc2) [Info](#) [Refresh](#) [Connect](#) [Instance state ▼](#) [Actions ▼](#)

Updated less than a minute ago

Instance ID i-0279abdc9401ed92f (PythonEc2)	Public IPv4 address 44.197.228.181 open address	Private IPv4 addresses 20.0.0.251
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-44-197-228-181.compute-1.amazonaws.com open address
Private IPv4 DNS ip-20-0-0-251.ec2.internal	Instance type t2.micro	Elastic IP addresses -
VPC ID vpc-01e278157d7a9f202 (Fall2021_)	AWS Compute Optimizer finding Opt-In to AWS Compute Optimizer for recommendations. Learn more	IAM Role -
Subnet ID subnet-0c8d58ff5ec2de184 (Public subnet)		

Select the instance in the EC2 dashboard and select Action, Connect

Search for services, features, marketplace products, and docs [Option+S]

admin-user @ 4307-8220-6656 N. Virginia Support

Instances (1/1) Info

Connect Instance state

Actions Launch instances

Filter instances

Name: PythonEc2 X Clear filters

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Sta
<input checked="" type="checkbox"/>	PythonEc2	i-0279abdc9401ed92f	Running	t2.micro	

Connect

View details

Manage instance state

Instance settings

Networking

Security

Image and templates

Monitor and troubleshoot

1

>

Availability

us-east-1f

Connect to instance Info

Connect to your instance i-0279abdc9401ed92f (PythonEc2) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 Serial Console

Instance ID

[i-0279abdc9401ed92f \(PythonEc2\)](#)

1. Open an SSH client.

2. Locate your private key file. The key used to launch this instance is Fall2021KeyPair.pem

3. Run this command, if necessary, to ensure your key is not publicly viewable.
chmod 400 Fall2021KeyPair.pem

4. Connect to your instance using its Public DNS:
ec2-44-197-228-181.compute-1.amazonaws.com

Example:
ssh -i "Fall2021KeyPair.pem" ec2-user@ec2-44-197-228-181.compute-1.amazonaws.com

Note:

In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

<p>Ssh to your EC2</p> <p>First time you ssh into your EC2, you will get a message asking if you want to continue, type yes</p>	<pre>((base) sisizhang@Sisis-MacBook-Pro key % sudo ssh -i "Fall2021KeyPair.pem" ec2-user@ec2-44-197-228-181.compute-1.amazonaws.com Password: Sorry, try again. Password: The authenticity of host 'ec2-44-197-228-181.compute-1.amazonaws.com (44.197.228.181)' can't be established. ECDSA key fingerprint is SHA256:4Vcxhp3ttHSVr0BrhUER9A2cKG1wmK1nuycpnblZtNs. Are you sure you want to continue connecting (yes/no/[fingerprint])? </pre>
<p>As soon as you ssh into your EC2, update it by issuing the command:</p> <p>sudo yum update</p>	<pre>-- -- _) _ (/ Amazon Linux 2 AMI --- \--- ---</pre> <p>https://aws.amazon.com/amazon-linux-2/ 11 package(s) needed for security, out of 35 available Run "sudo yum update" to apply all updates. [ec2-user@ip-20-0-0-251 ~]\$ sudo yum uodate Loaded plugins: extras_suggestions, langpacks, priorities, update-motd No such command: uodate. Please use /bin/yum --help [ec2-user@ip-20-0-0-251 ~]\$ sudo yum update</p>
<p>Then execute the following commands to install s3fs-fuse: this would allow you to mount a S3 bucket as a Unix folder (directory)</p> <p>If you have launched another type of EC2, e.g., Ubuntu, please check installation instructions:</p> <p>https://github.com/s3fs-fuse/s3fs-fuse/wiki/Installation-Notes</p>	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ sudo sed -i 's/enabled=0/enabled=1/' /etc/yum.repos.d/epel.repo [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ sudo yum install -y gcc libstdc++-devel gcc-c++ fuse fuse-devel curl-devel libxml2 make openssl-devel git make [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ git clone https://github.com/s3fs-fuse/s3fs-fuse [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ cd s3fs-fuse/ [ec2-user@ip-20-0-0-251 s3fs-fuse]\$./autogen.sh [ec2-user@ip-20-0-0-251 s3fs-fuse]\$./configure --prefix=/usr --with-openssl [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ make [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ sudo make install</pre>
<p>Create a file to keep your AWS credential. You can use nano, vi, vim, or any editor available in your EC2.</p> <p>You can also use your laptop text editor, e.g., notepad, notepad++,</p>	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ mkdir ~/.aws [ec2-user@ip-20-0-0-251 s3fs-fuse]\$ nano ~/.aws/credentials</pre>

and then sftp your credentials file into your EC2.	
<p>Provide the credentials you created and downloaded beforehand, e.g.,</p> <pre>[default] aws_access_key_id=AKIAIOSFODN N7EXAMPLE aws_secret_access_key=wJalrXU t nFEMI/K7MDENG/bPxrFiCYEXAM PLEKEY</pre> <p>If you use nano, to save your changes issue the following commands:</p> <pre>control-o control-x</pre>	<pre>GNU nano 2.9.8 /home/ec2-user/.aws/credentials [default] aws_access_key_id= aws_secret_access_key=</pre>
Then change the access to your credential file	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ chmod 640 ~/.aws/credentials</pre>
<p>Create a bucket using AWS CLI.</p> <p>Note that you will not be able to name your bucket as edu.gwu.ds.cc.fall2010</p> <p>Since I have already done so. Bucket names are unique.</p> <p>You will need to pick a name that does not exit.</p> <p>In this class, you will use the following name rule</p> <p>edu.gwu.ds.cc.YourGNumber</p>	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ aws s3api create-bucket --bucket edu.gwu.ds.cc.fall2021 --region us-east-1</pre>

YourGNumber is your GWU G#. In this way, it is unlikely that somebody else names a bucket in this way	
Create a local directory that will be synchronized with your AWS S3 Bucket The option -p will create the upper level directories if they do not exist. This is just an example, you give any folder name that is consistent with Linux directory name rules.	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ mkdir -p ~/edu/gwu/ds/cc/fall2021</pre>
Synchronize your local folder with your aws s3 bucket	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ s3fs 'edu.gwu.ds.cc.fall2021' ~/edu/gwu/ds/cc/fall2021 -o use_path_request_style</pre>
Download SSA baby name file into your local folder: ~/edu/gwu/ds/cc/fall2020	<pre>[ec2-user@ip-20-0-0-251 s3fs-fuse]\$ cd ~/edu/gwu/ds/cc/fall2021 [ec2-user@ip-20-0-0-251 fall2021]\$ wget https://www.ssa.gov/oact/babynames/names.zip</pre>
Unzip names.zip	<pre>[ec2-user@ip-20-0-0-251 fall2021]\$ unzip names.zip</pre>
Using AWS CLI, list the files available in the AWS S3	<pre>[ec2-user@ip-20-0-0-251 fall2021]\$ aws s3 ls s3://edu.gwu.ds.cc.fall2021</pre>

Navigate to the folder where you have uploaded and unzipped the names.zip file and you will see the same list of baby names per year

Amazon S3 > edu.gwu.ds.cc.fall2021

edu.gwu.ds.cc.fall2021 [Info](#)



[Objects](#) | [Properties](#) | [Permissions](#) | [Metrics](#) | [Management](#) | [Access Points](#)

Objects (143)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

[Refresh](#) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) [Actions](#)

[Create folder](#) [Upload](#)

<input type="checkbox"/>	Name ▲	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	 names.zip	zip	October 3, 2021, 22:54:19 (UTC-04:00)	6.9 MB	Standard
<input type="checkbox"/>	 NationalReadMe.pdf	pdf	October 3, 2021, 22:55:52 (UTC-04:00)	108.0 KB	Standard

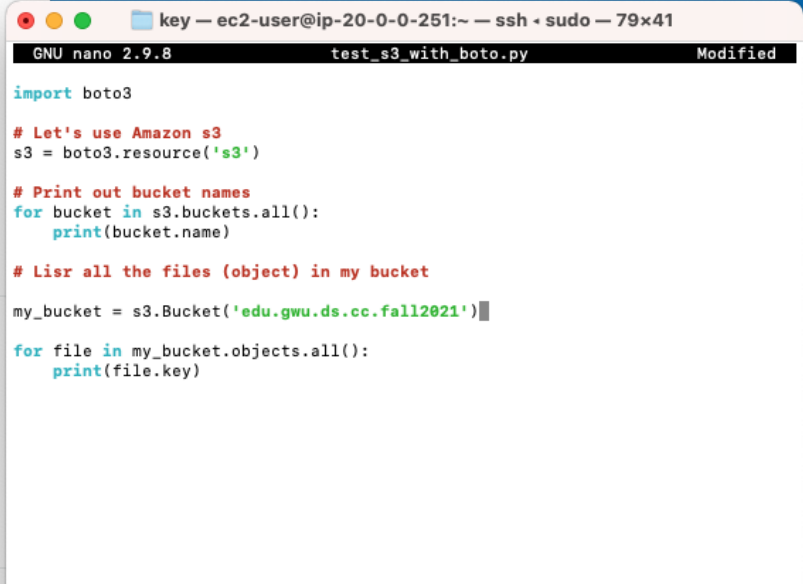
Now let us write a small Python program to manipulate buckets and objects using Python Boto library

Before you do so, you must install Python3.
Normally, the simple “sudo yum install python3” should work, however, sometimes it does not.

```
[[ec2-user@ip-20-0-0-251 ~]$ python3 --version
Python 3.7.10
```

Update pip. To do so:

```
curl -O https://bootstrap.pypa.io/get-pip.py
python3 get-pip.py -user
echo 'export PATH=~/.local/bin:$PATH' >> ~/.bashrc
```

<ol style="list-style-type: none"> 1. Download the installation script from pypa.io. 2. Execute the script 3. Add pip3 to path 	<pre>source ~/.bashrc [ec2-user@ip-20-0-0-251 ~]\$ curl -O https://bootstrap.pypa.io/get-pip.py % Total % Received % Xferd Average Speed Time Time Time Current Dload Upload Total Spent Left Speed 100 1901k 100 1901k 0 0 34.3M 0 --:--:-- --:--:-- --:--:-- 34.3M [ec2-user@ip-20-0-0-251 ~]\$ python3 get-pip.py --user [[ec2-user@ip-20-0-0-251 ~]\$ echo 'export PATH=~/.local/bin:\$PATH' >> ~/.bashrc [[ec2-user@ip-20-0-0-251 ~]\$ source ~/.bashrc</pre>
<p>Install Boto</p> <p>Using your preferred text editor create a python program to list your buckets and the files inside the bucket that you have upload previously. Name this Python program: test_s3_with_boto.py</p>	<pre>[ec2-user@ip-20-0-0-251 ~]\$ pip3 install boto3 --user</pre>  <pre>import boto3 # Let's use Amazon s3 s3 = boto3.resource('s3') # Print out bucket names for bucket in s3.buckets.all(): print(bucket.name) # List all the files (object) in my bucket my_bucket = s3.Bucket('edu.gwu.ds.cc.fall2021') for file in my_bucket.objects.all(): print(file.key)</pre>
<p>Make your Python program executable</p>	<pre>[ec2-user@ip-20-0-0-251 ~]\$ chmod +x test_s3_with_boto.py</pre>
<p>Execute your test_s3_with_boto.py</p>	<pre>[ec2-user@ip-20-0-0-251 ~]\$ python3 test_s3_with_boto.py edu.gwu.ds.cc.fall2021 NationalReadMe.pdf names.zip yob1880.txt yob1881.txt yob1882.txt yob1883.txt</pre>
<p>Congratulations! You made it!</p>	

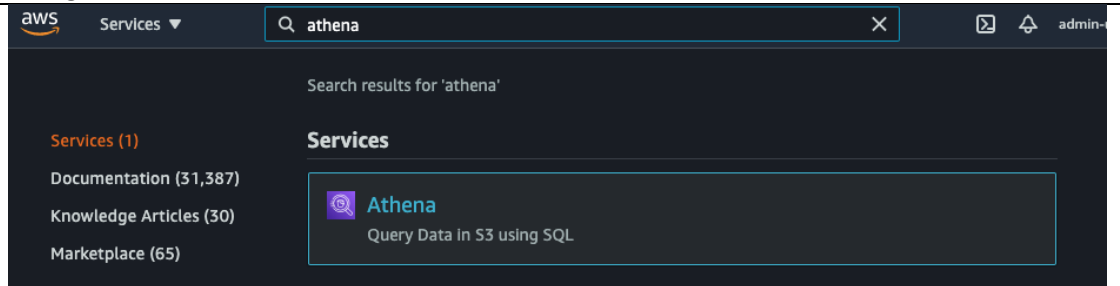
Continue to play with Boto3.
Upload a file into your bucket,
then download another file from
the bucket.

Documentation is available in the
following URL:

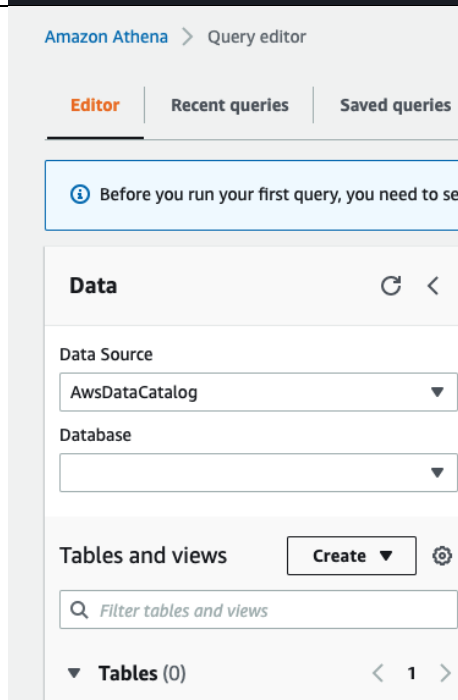
[https://boto3.amazonaws.com/v1
/documentation/api/latest/index.
html](https://boto3.amazonaws.com/v1/documentation/api/latest/index.html)

Now, we will query the names uploaded as S3 files using Athena. Check documentation about Athena

Open the console and find Athena





Select the option Create table



Select the option From S3 bucket data

Data




Data Source

AwsDataCatalog


Database

Tables and views

 *Filter tables and views*


▼ Tables (0)

Create ▲



Create a table from datasource

S3 bucket data

AWS Glue Crawler 

Query 1

1

Select the option “Create a new database” and given a name, e.g., myssanamesdb

Provide a name for the Athena table that will contain your data, e.g., myssanames

Provide the name of the bucket you created previously, e.g.,

s3://edu.gwu.ds.cs.fall2010/

REMEMBER this is my bucket name!
You must have created a bucket with your G#

DO NOT FORGET the last forward slash (/) at the end of the name of the bucket

Click the “next” button

Database configuration [Info](#)

Choose an existing database or create a new database

Choose to access an existing database or to create a new database in order to create a new table. Athena stores the table schema in the AWS Glue Data Catalog.

☐ Choose an existing database

☒ Create a database

Database name

Name your new database

myssanamesdb

Maximum 128 characters. Can include alphanumeric characters and underscores (_). Database names must be unique.

Dataset

Location of input data set

Q s3://edu.gwu.ds.cc.fall2021/ X

View [↗](#)

Browse S3

Input the path to the data set you want to process on Amazon S3. For example if your data is stored at s3://input-data-set/logs/1.csv, please enter s3://input-data-set/logs/. If your data is already partitioned, e.g. s3://input-data-set/logs/year=2004/month=12/day=11/ just input the base path s3://input-data-set/logs/

Encryption [Info](#)

Choose this option if the underlying data is encrypted in Amazon S3.

☐ Encrypted data set

Data format

Data format

CSV ▼

Provide the column names and types, e.g.:

Name type String

Gender type String

Births type Int

Then type next

Do not worry about partitions

Click “Create Table”

Column details

Column name must be single words that start with a letter or a digit. Certain advanced column types (namely, structs) are not exposed in this interface.

Column name

Column type

string ▼

Remove

Column name

Column type

string ▼

Remove

Column name

Column type

int ▼

Remove

Add a column

Bulk add columns

Athena will create the table and will show the DDL used to create it

Query 1 ✕

✔ Query 2 ✕

+

▼

```
1 CREATE EXTERNAL TABLE IF NOT EXISTS myssanamesdb
2   `.myssanames` (
3     `names` string,
4     `gender` string,
5     `births` int
6   )
7 ROW FORMAT SERDE 'org.apache.hadoop.hive.serde2.lazy
8   .LazySimpleSerDe'
9 WITH SERDEPROPERTIES (
10   'serialization.format' = ',',
11   'field.delim' = ',')
12 ) LOCATION 's3://edu.gwu.ds.cc.fall2021/'
13 TBLPROPERTIES ('has_encrypted_data'='false');
```

Create a new query that will show the total number of both female and male births

```
SELECT gender, SUM(births) as total  
FROM myssanames  
GROUP BY gender;
```

Execute the query and check the results

Data Source
AwsDataCatalog

Database
myssanamesdb

Tables and views
Create

Filter tables and views

Tables (1)
myssanames

Views (0)

```
1 SELECT gender, SUM(births) as total  
2 FROM myssanames  
3 GROUP BY gender;
```

Ln 3, Col 17

Run Cancel Save as Clear Create

Completed Time in queue: 0.184 sec Run time: 1.257 sec Data scanned: 24.86 MB

Results (2)
Search rows
Download results

gender	total
F	177378491
M	181102218