

EXPERIMENT 6

Querying Data in S3 with Amazon Athena

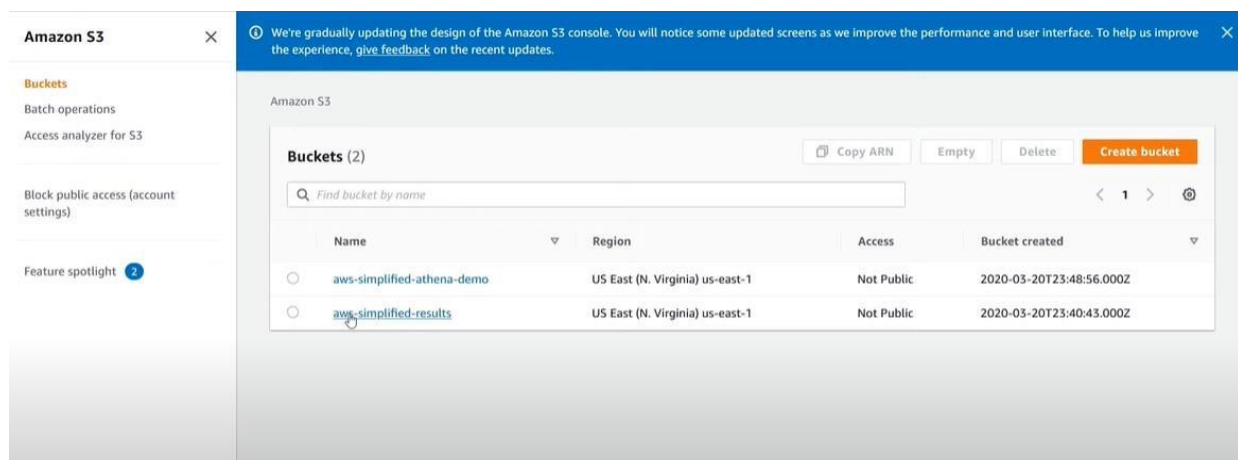
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Aim: Querying Data in S3 with Amazon Athena

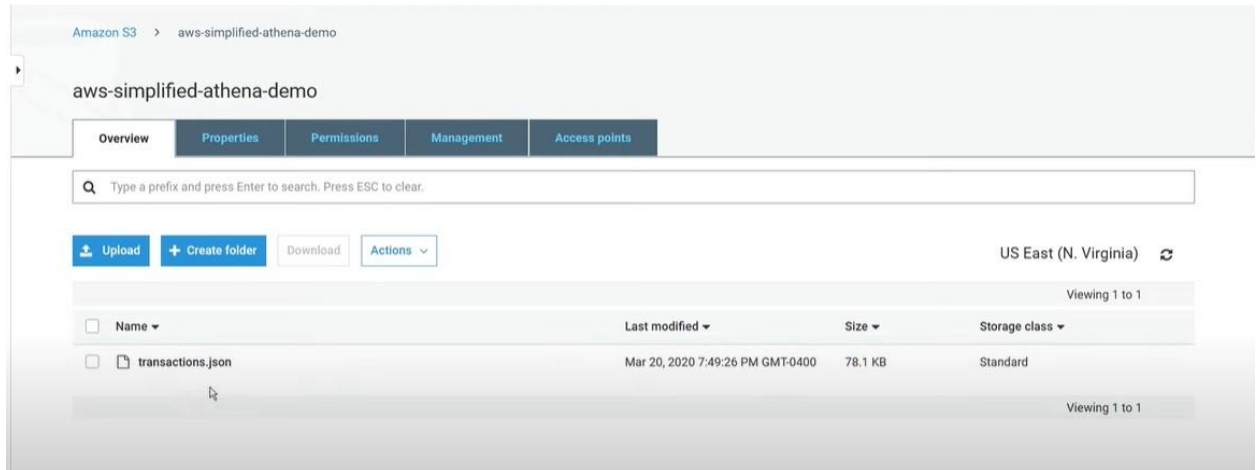
Step 1:

Go to buckets and create two buckets.



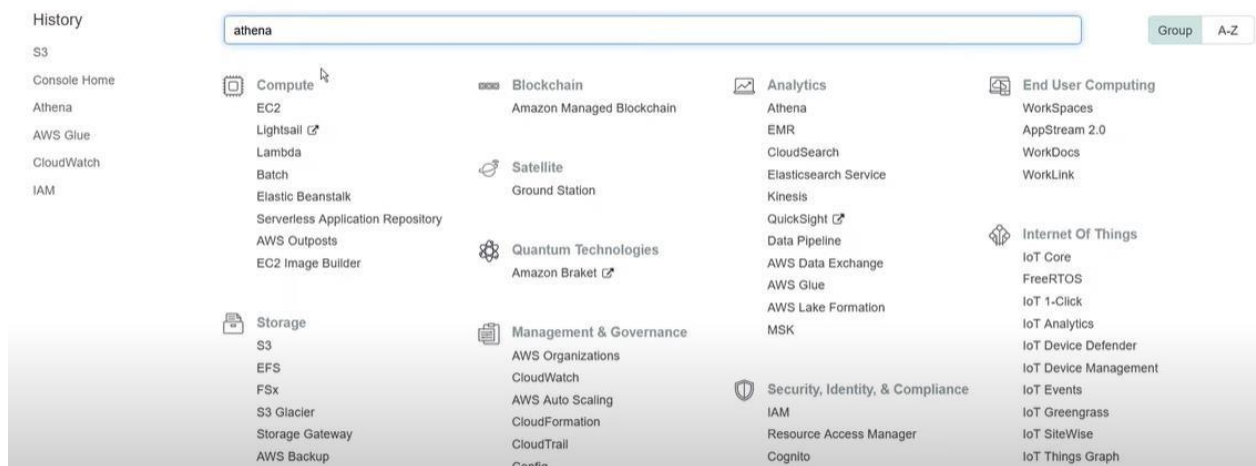
Step 2:

After clicking onto the bucket add files to it.



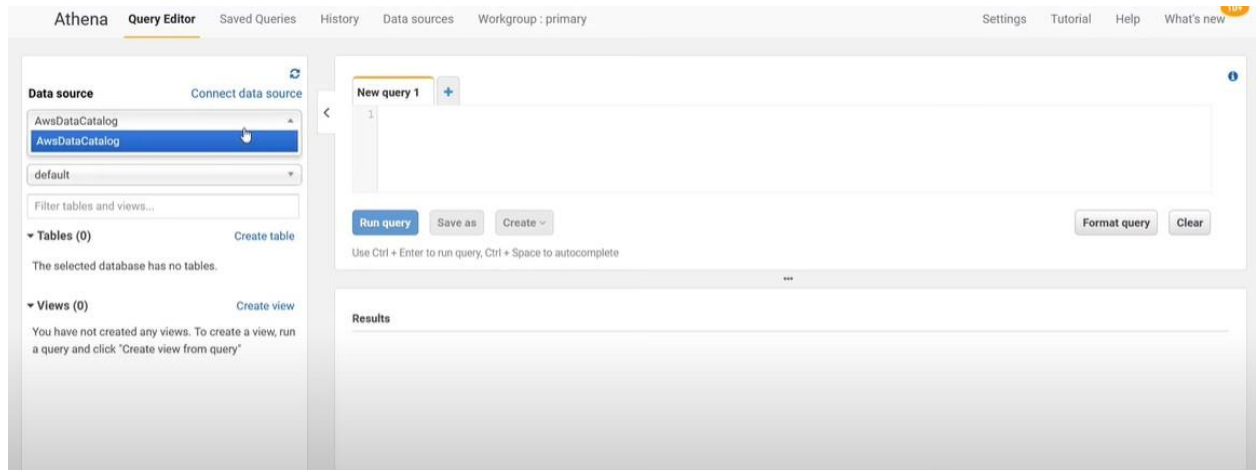
Step 3:

Now go to Amazon Athena.



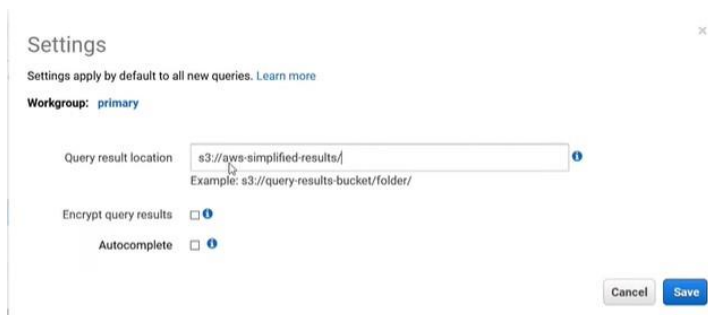
Step 4:

Select Aws Data Catalog in the left side which is present in the data source tab.



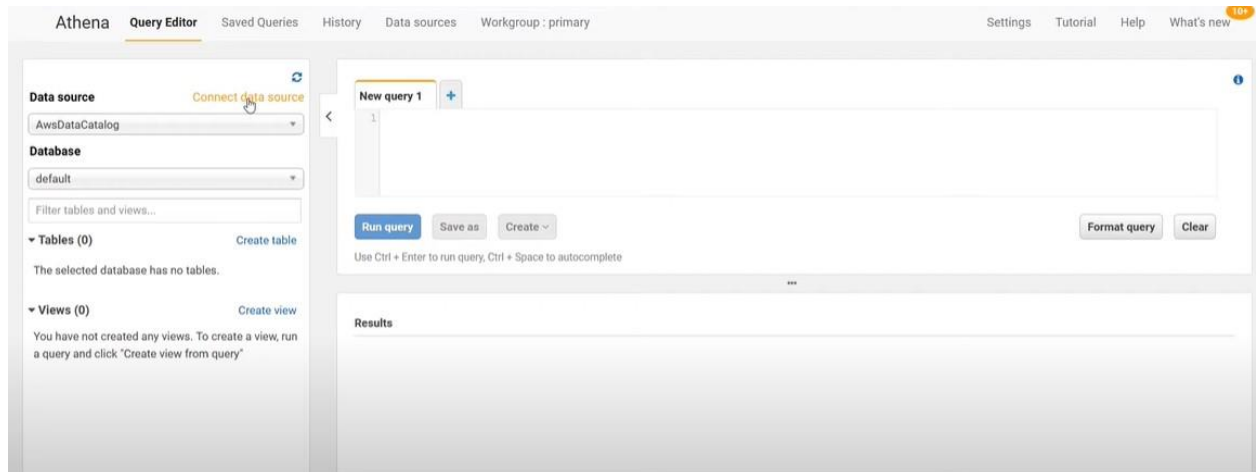
Step 5:

After that go to settings and specify an output path.



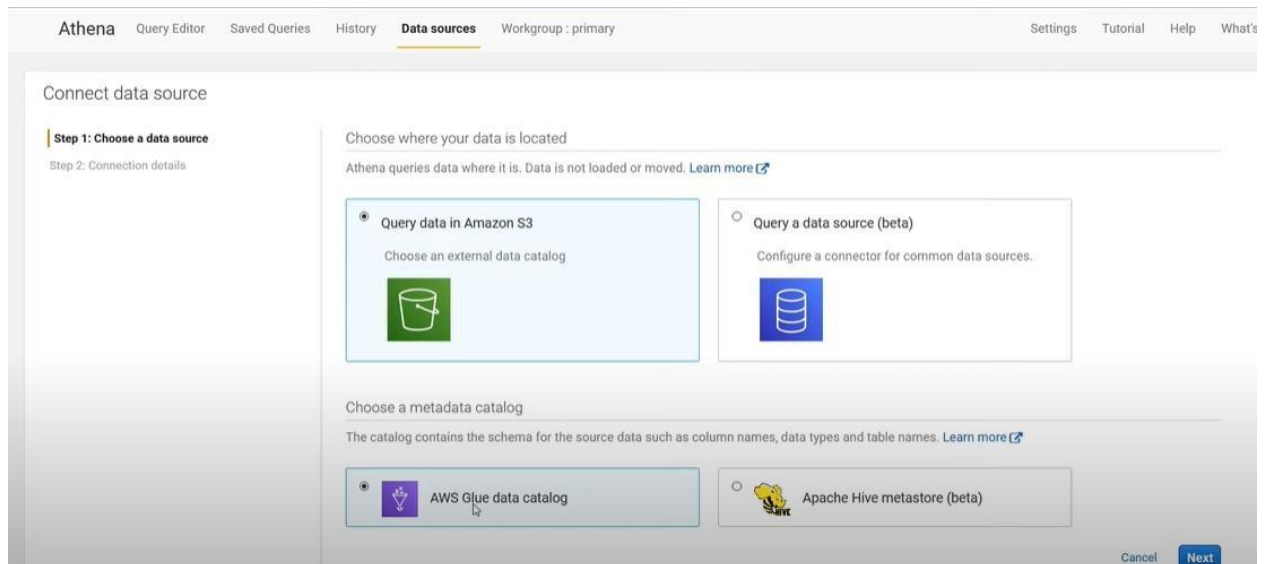
Step 6:

Click on connect data source.



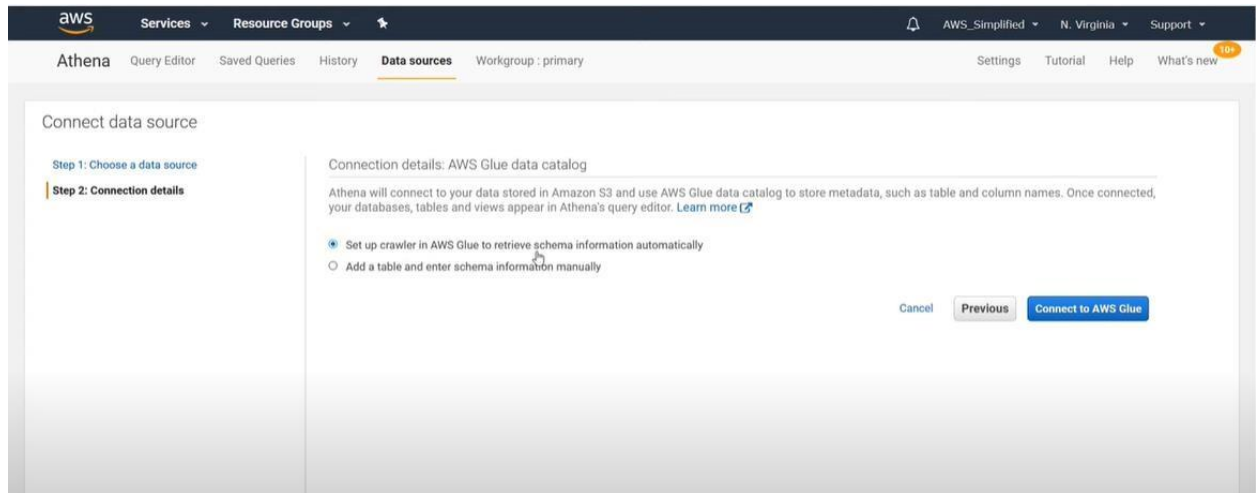
Step 7:

After clicking choose a query in amazon s3 and Aws glue data catalog.



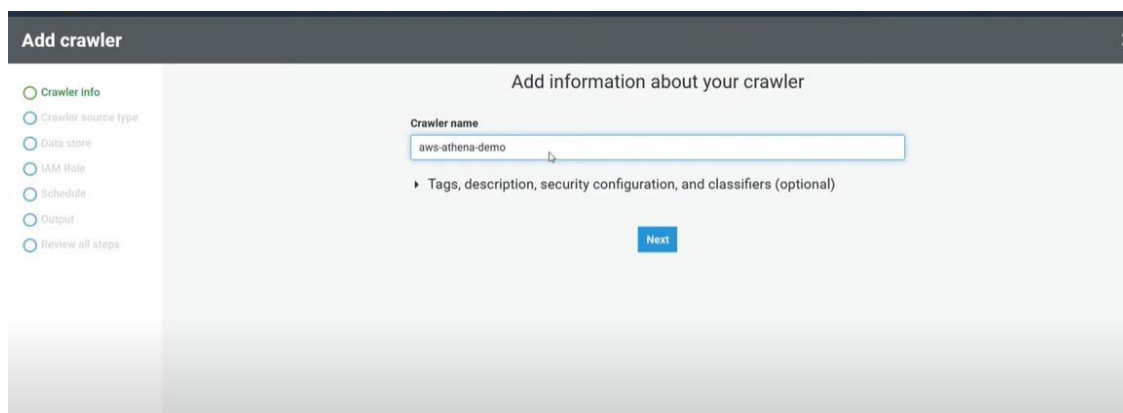
Step 8:

Click on next and select setup a crawler in AWS glue to retrieve schema information automatically.



Step 9:

After selecting that it will redirect to a new page and add crawler and follow below steps to add a new crawler after setting up click on finish.



Add crawler

Crawler info

aws-athena-demo

Crawler source type

Data store

IAM Role

Schedule

Output

Review all steps

Specify crawler source type

Choose Existing catalog tables to specify catalog tables as the crawler source. The selected tables specify the data stores to crawl. This option doesn't support JDBC data stores.

Crawler source type

☒ Data stores

☐ Existing catalog tables

Back

Next

Add crawler

Crawler info

aws-athena-demo

Crawler source type

Data stores

Data store

IAM Role

Schedule

Output

Review all steps

Add a data store

Choose a data store

s3

Crawl data in

☒ Specified path in my account

☐ Specified path in another account

Include path

s3://bucket/prefix/object

Exclude patterns (optional)

Back

Next

Add crawler

Crawler info

aws-athena-demo

Crawler source type

Data stores

Data store

S3: s3://aws-simplifi...

IAM Role

Schedule

Output

Review all steps

Choose an IAM role

The IAM role allows the crawler to run and access your Amazon S3 data stores. [Learn more](#)

☐ Update a policy in an IAM role

☐ Choose an existing IAM role

☒ Create an IAM role

IAM role

AWSGlueServiceRole-

demo

To create an IAM role, you must have **CreateRole**, **CreatePolicy**, and **AttachRolePolicy** permissions. Create an IAM role named "AWSGlueServiceRole-rolename" and attach the AWS managed policy, **AWSGlueServiceRole**, plus an inline policy that allows read access to:

- s3://aws-simplified-athena-demo/

You can also create an IAM role on the [IAM console](#).

Back

Next

Crawler info

aws-athena-demo

Crawler source type

Data stores

Data store

S3: s3://aws-simplif...

IAM Role

arn:aws:iam::398447858632:role/service-role/AWSGlueServiceRole-demo

Schedule

Output

Review all steps

Create a schedule for this crawler

Frequency

Run on demand

Back

Next

Add crawler

Crawler info

aws-athena-demo

Crawler source type

Data stores

Data store

S3: s3://aws-simplif...

IAM Role

arn:aws:iam::398447858632:role/service-role/AWSGlueServiceRole-demo

Schedule

Run on demand

Output

default

Review all steps

Crawler info

Name

aws-athena-demo

Tags

-

IAM role

IAM role

arn:aws:iam::398447858632:role/service-role/AWSGlueServiceRole-demo

Schedule

Schedule

Run on demand

Output

Database

default

Prefix added to tables (optional)

Create a single schema for each S3 path

false

Step 10:

Crawler is successfully created and now click on the crawler and click run crawler.

AWS Glue

Data catalog

Databases

Tables

Connections

Crawlers

Classifiers

Settings

ETL

Workflows

Jobs

ML Transforms

Triggers

Dev endpoints

Notebooks

Crawlers

A crawler connects to a data store, progresses through a prioritized list of classifiers to determine the schema for your data, and then creates metadata tables in your data catalog.

Attempting to run crawler "aws-athena-demo"...

Add crawler

Run crawler

Action

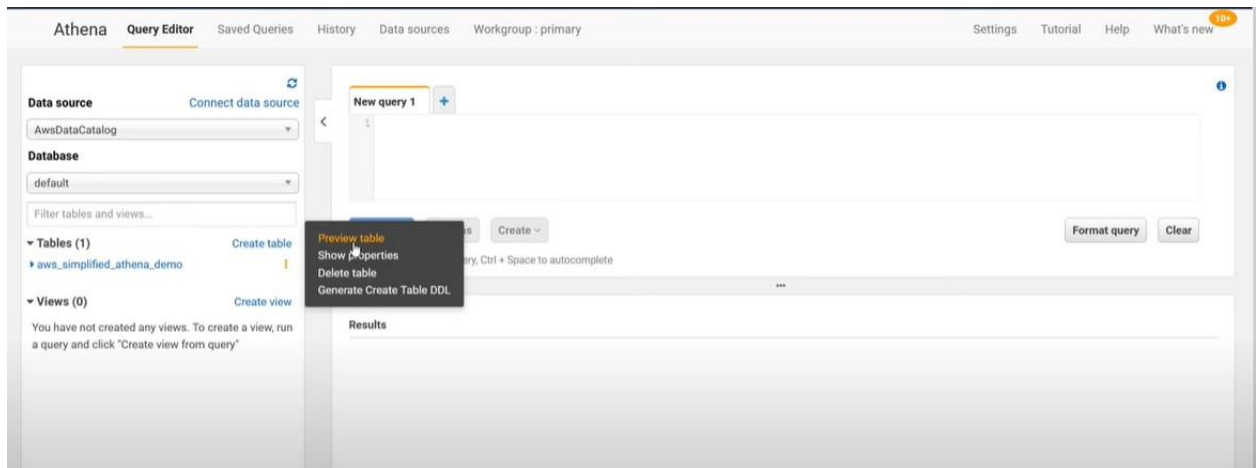
Filter by tags and attributes

Showing: 1 - 1

| Name | Schedule | Status | Logs | Last runtime | Median runtime | Tables updated | Tables added |
|-----------------|----------|--------|------|--------------|----------------|----------------|--------------|
| aws-athena-demo | | Ready | | 0 secs | 0 secs | 0 | 0 |

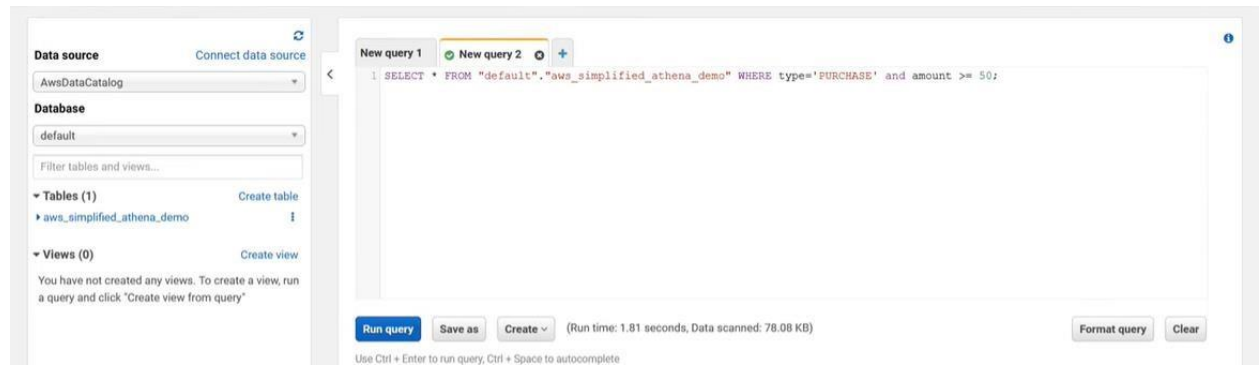
Step 11:

After running the crawler go back to Athena you will see a table created on table column select that and click on preview table.



Step 12:

Now the query can be executed.



Result:

Querying Data in S3 with Amazon Athena is done and output is verified.