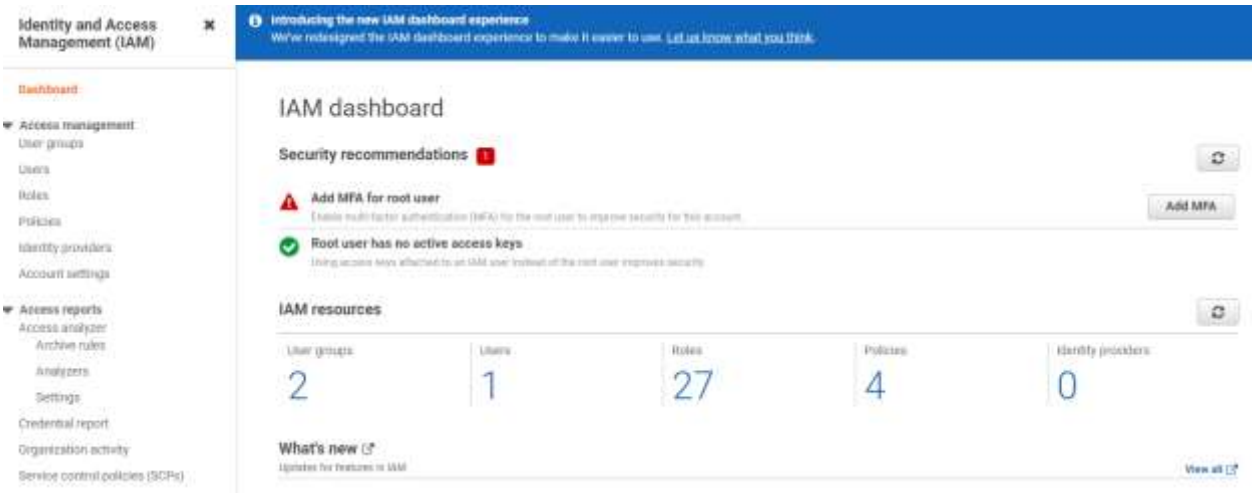
HOE 2 - Setup IAM Role and Deploy Cluster, Query with Query Editor

In this exercise we will deploy a Redshift Cluster after configuring security options and networking. You may want to delete the initial cluster.

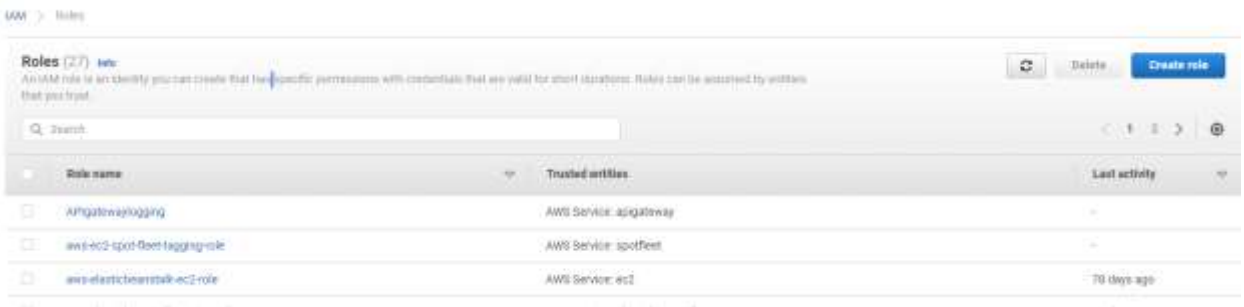
After completing Exercise 1. (if you want avoid additional cloud spend)

Before we can actually do any real work with the cluster we will need to allow access to the Redshift. To do this we would allow access by creating a role for Redshift.

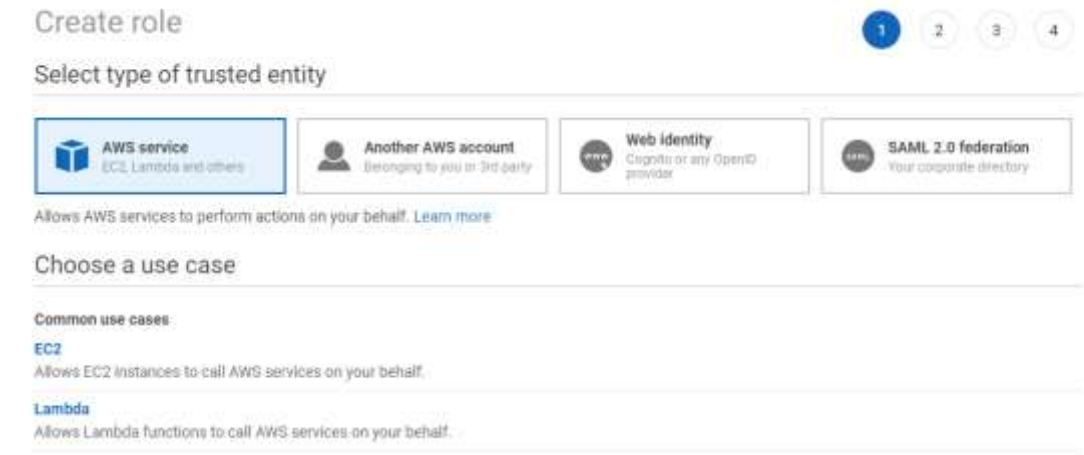
Choose Roles from left panel.



1. Choose Create role from right.

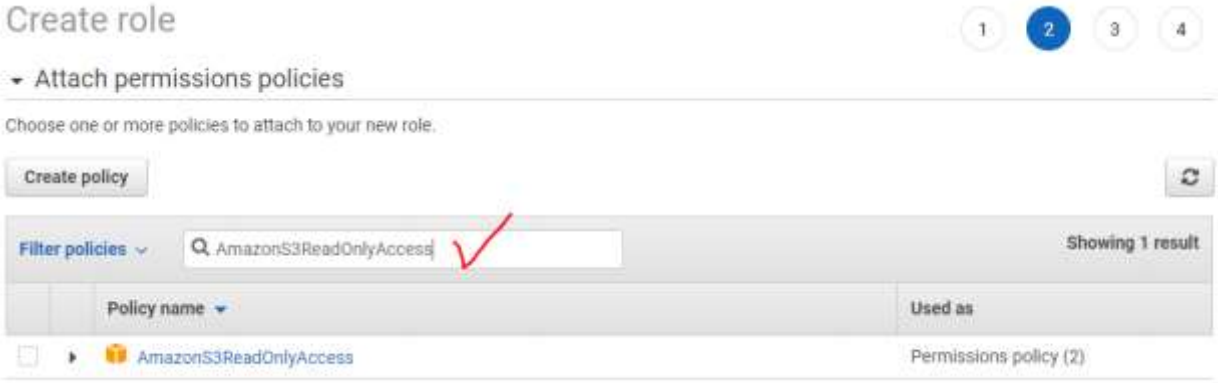


In the AWS Service group, choose Redshift.

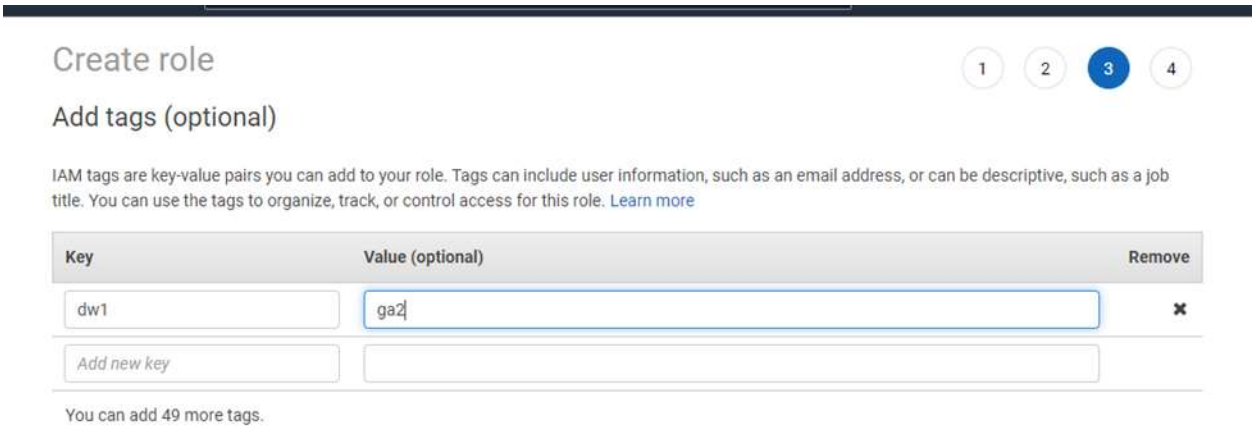


Under Select your use case, choose Redshift - Customizable, then choose Next: Permissions.

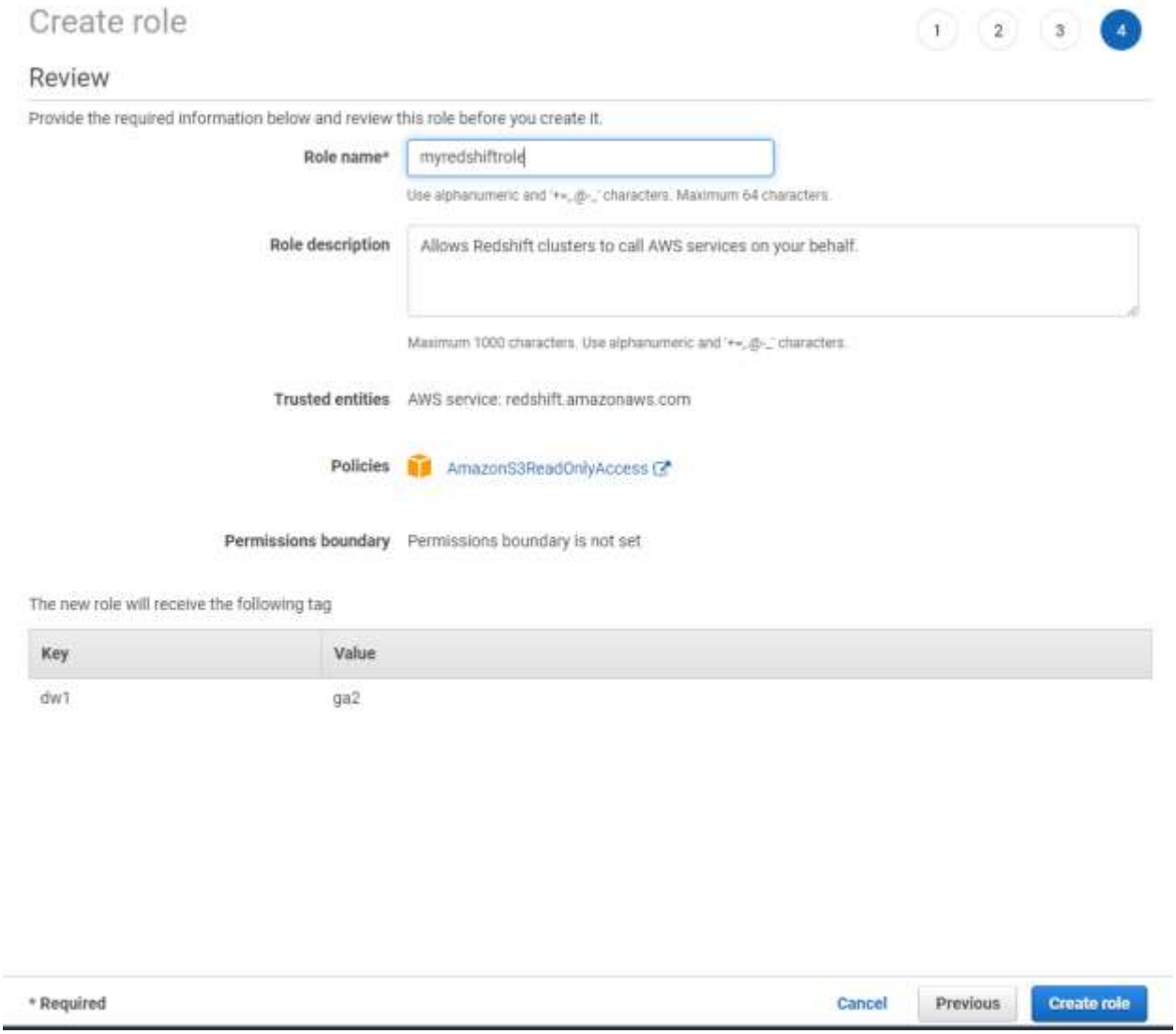
On the Attach permissions policies page, choose AmazonS3ReadOnlyAccess. You can leave the default setting for Set permissions boundary. Then choose Next: Tags.



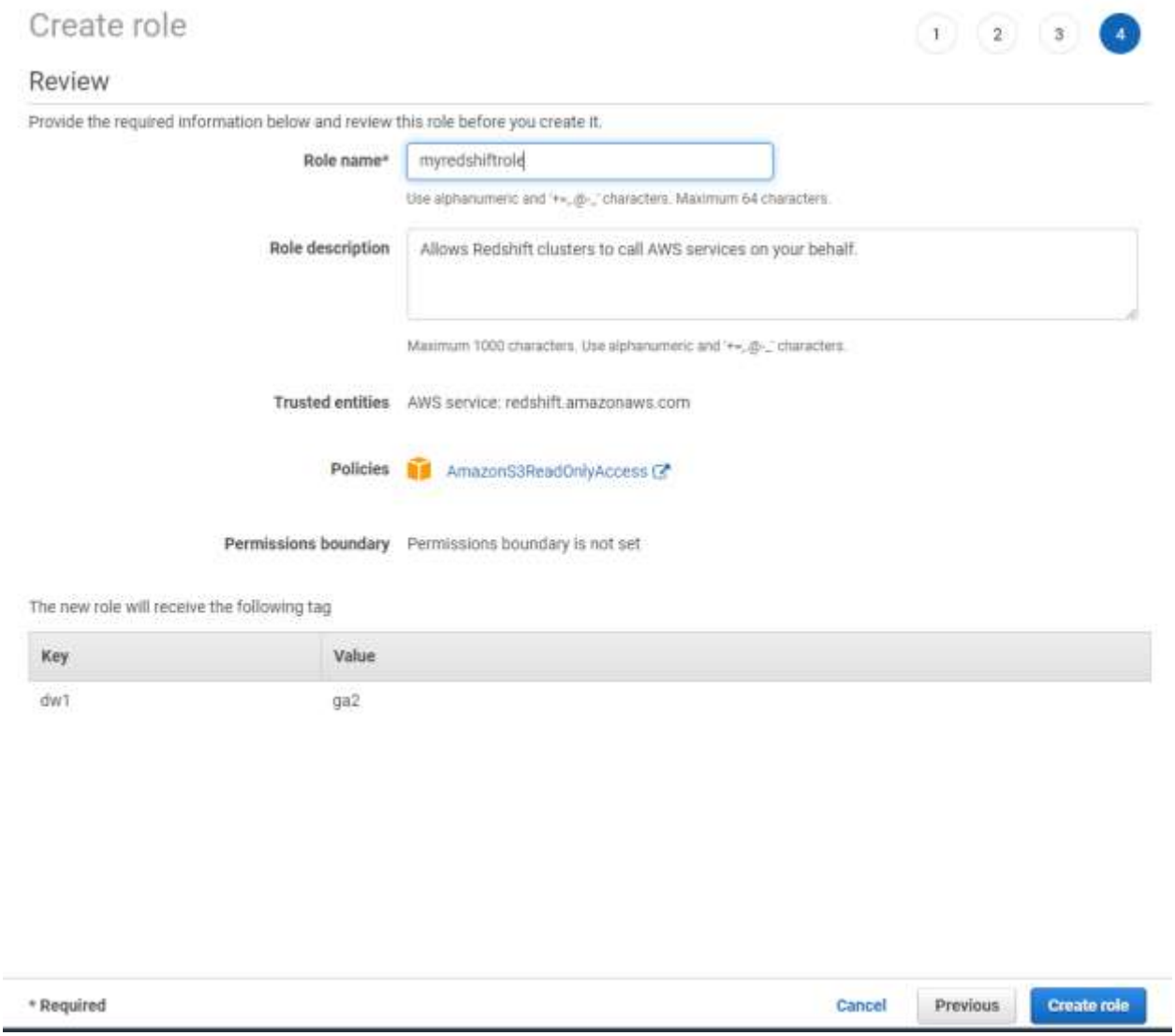
The Add tags page appears. You can optionally add tags. Choose Next: Review.



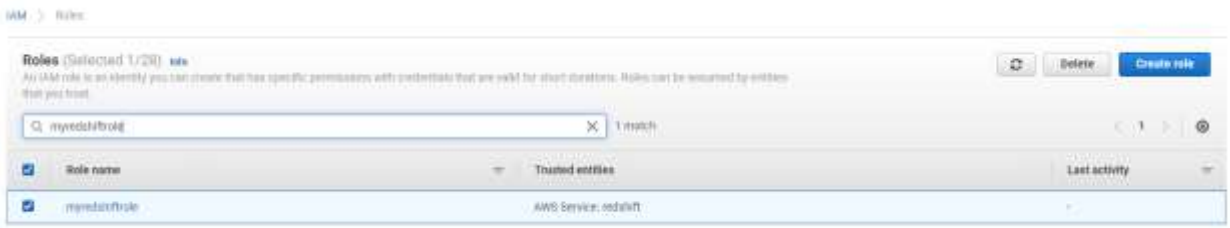
For Role name, enter a name for your role. For this tutorial, enter myRedshiftRole.



Create Role.



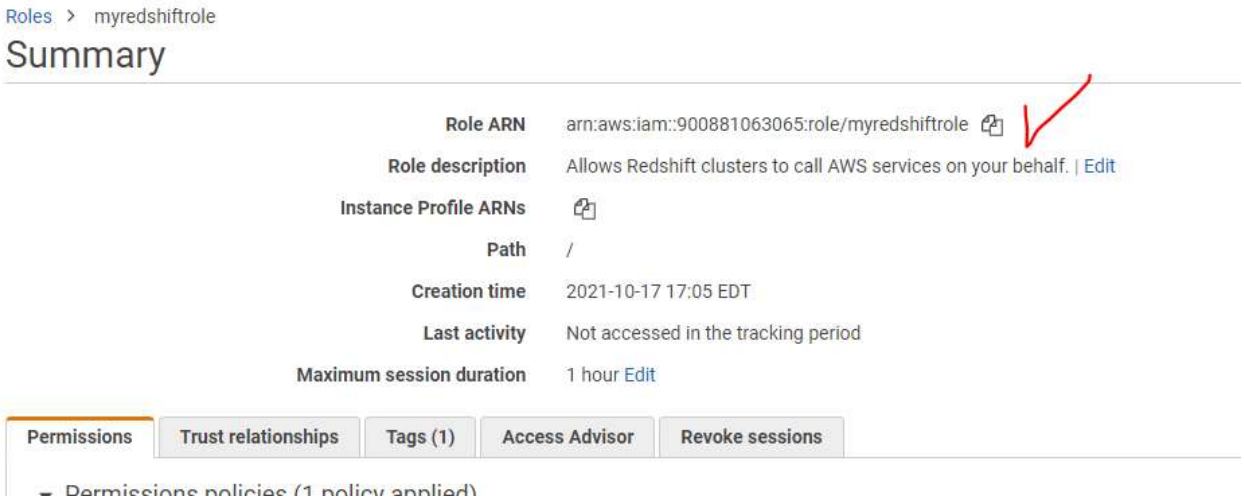
Choose the role name of the role that you just created.



Copy the Role ARN value to your clipboard

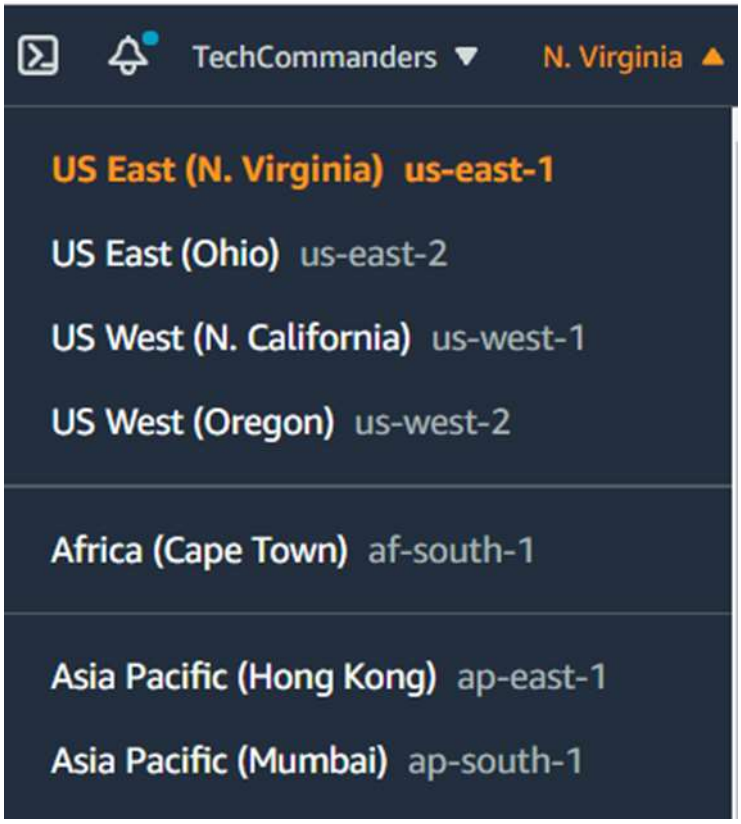
This value is the Amazon Resource Name (ARN) for the role that you just created. You use that value when you use the COPY command to load data

arn:aws:iam::900881063065:role/myredshiftrole

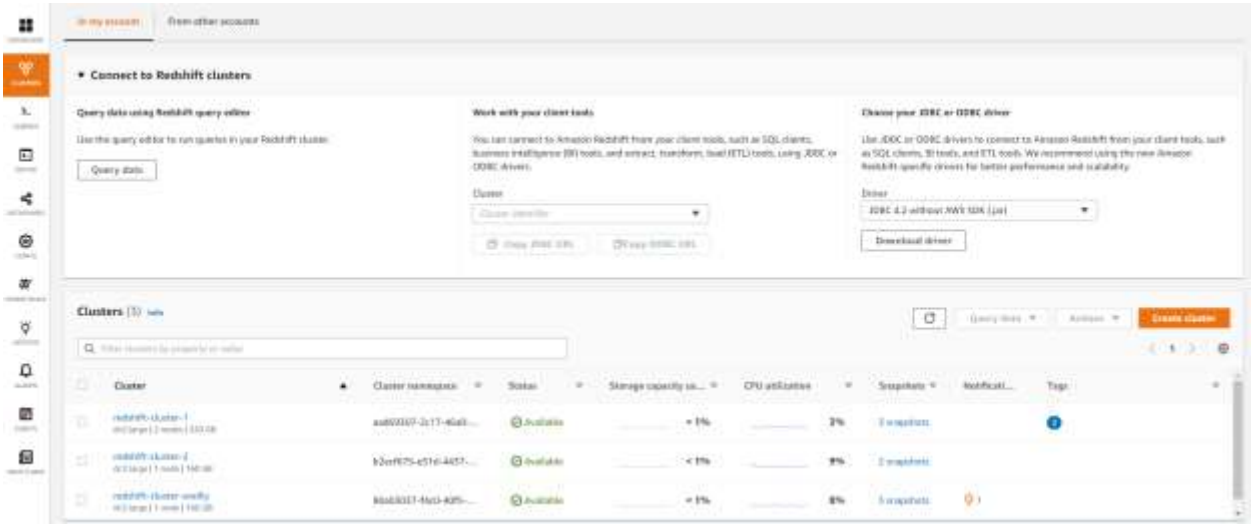


Create a Cluster

1. Select the region where the cluster is to be created using the Region menu on the top right-side corner of the screen.



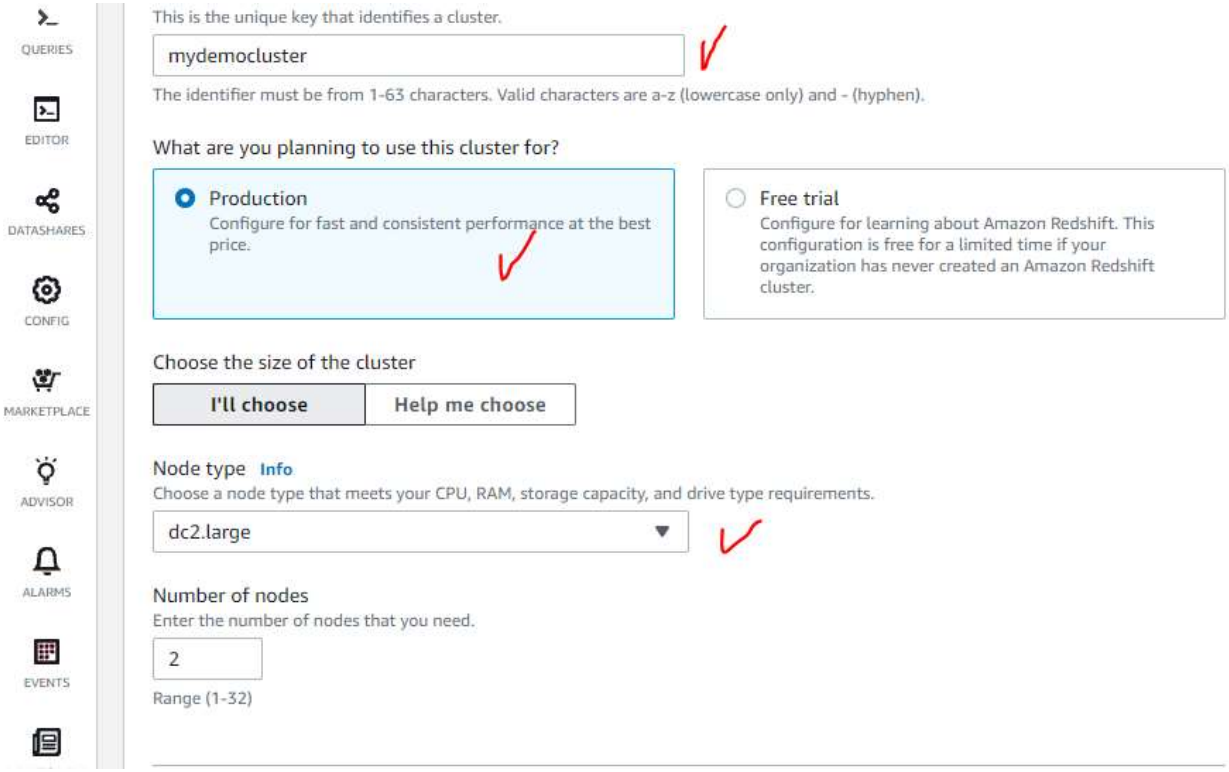
On the navigation menu, choose **CLUSTERS**, then choose **Create cluster**. The **Create cluster** page appears.



In the **Cluster configuration** section, specify values for **Cluster identifier**, **Node type**, **Nodes**, and how you plan to use the cluster:

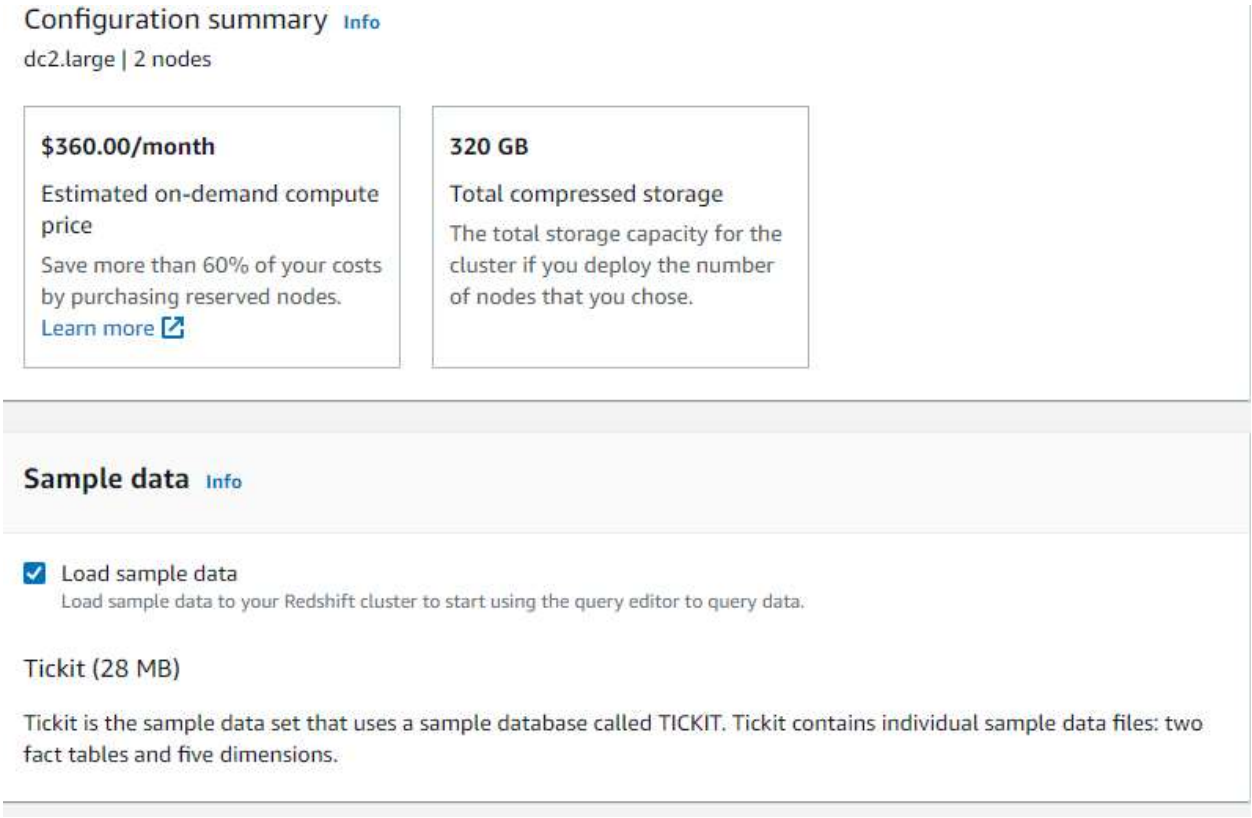
For Cluster identifier, enter mydemocluster for this tutorial.

Then Choose Production and then select a node size of dc2.large



To use the sample dataset that Amazon Redshift provides, in Sample data, choose Load sample data. Amazon Redshift loads the sample dataset Tickit to the default dev database and public schema.

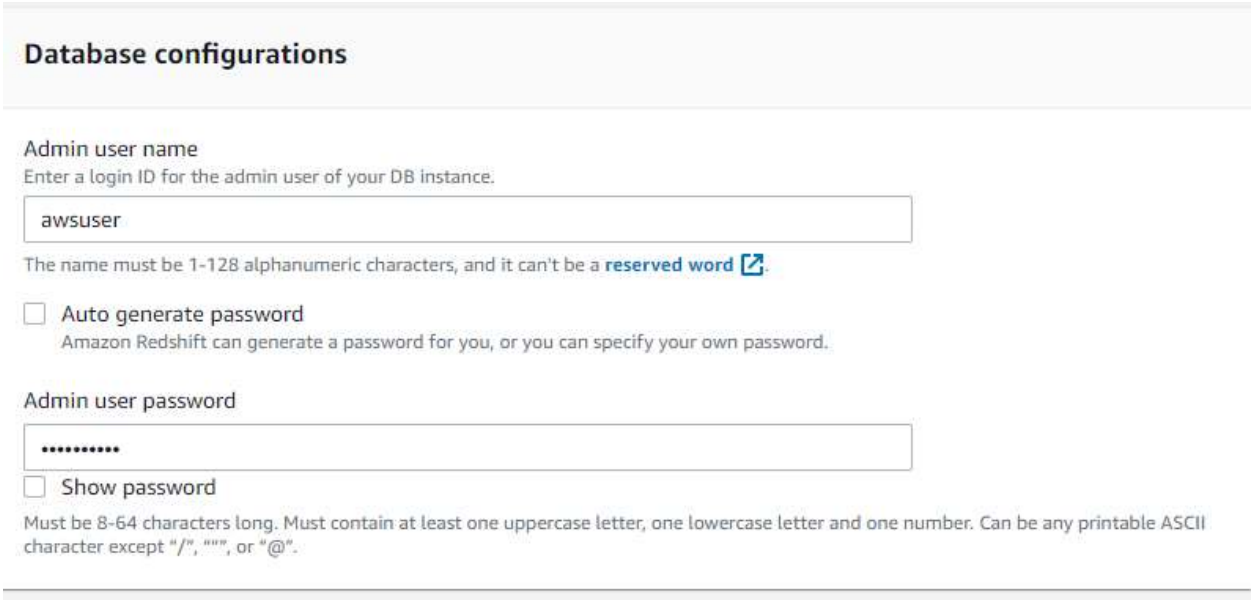
Choose Load Sample



In the Database configuration section, specify values for Database name (optional), Database port , Admin user name, and Admin user password. Or choose Generate password to use a password generated by Amazon Redshift.

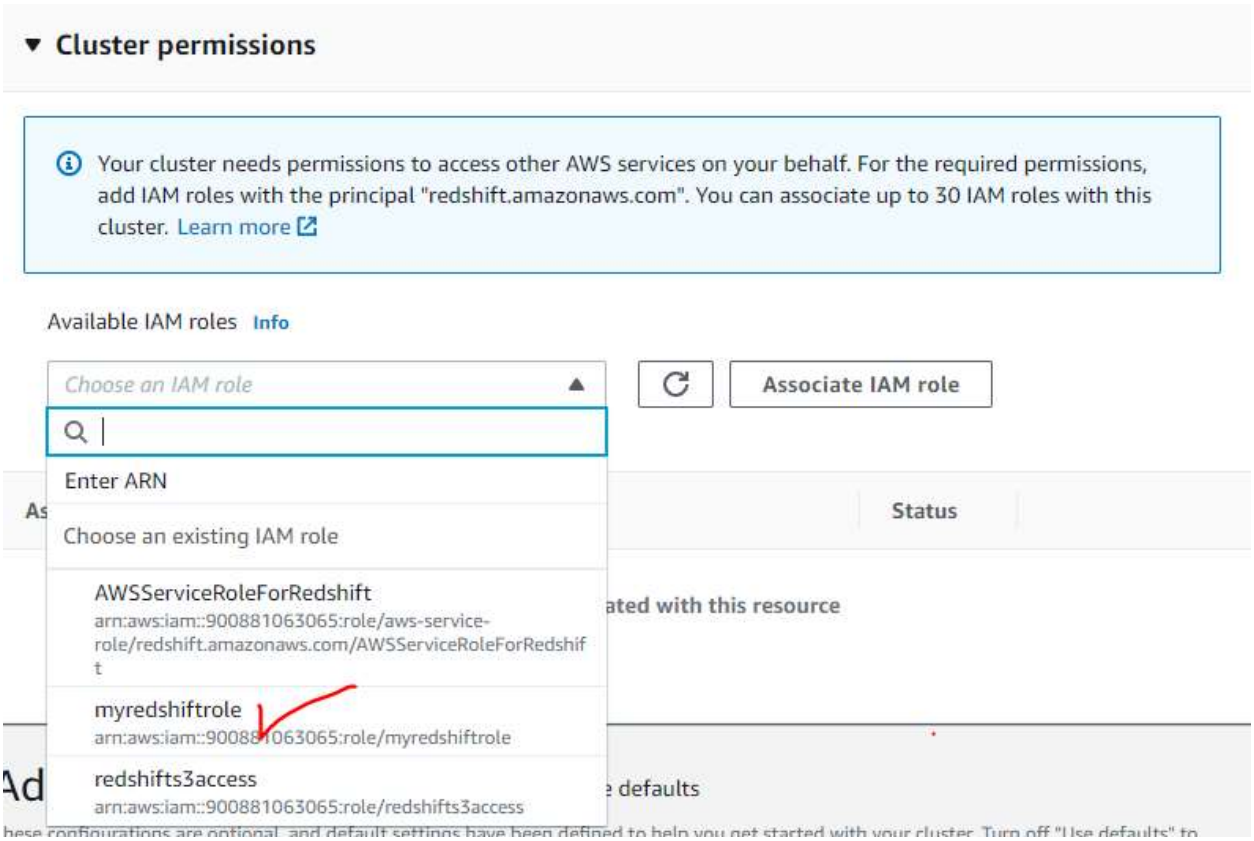
In this tutorial, use these values:

- Database name (optional): Enter dev.
- Database port (optional): Enter 5439.
- Admin user name: Enter awsuser.

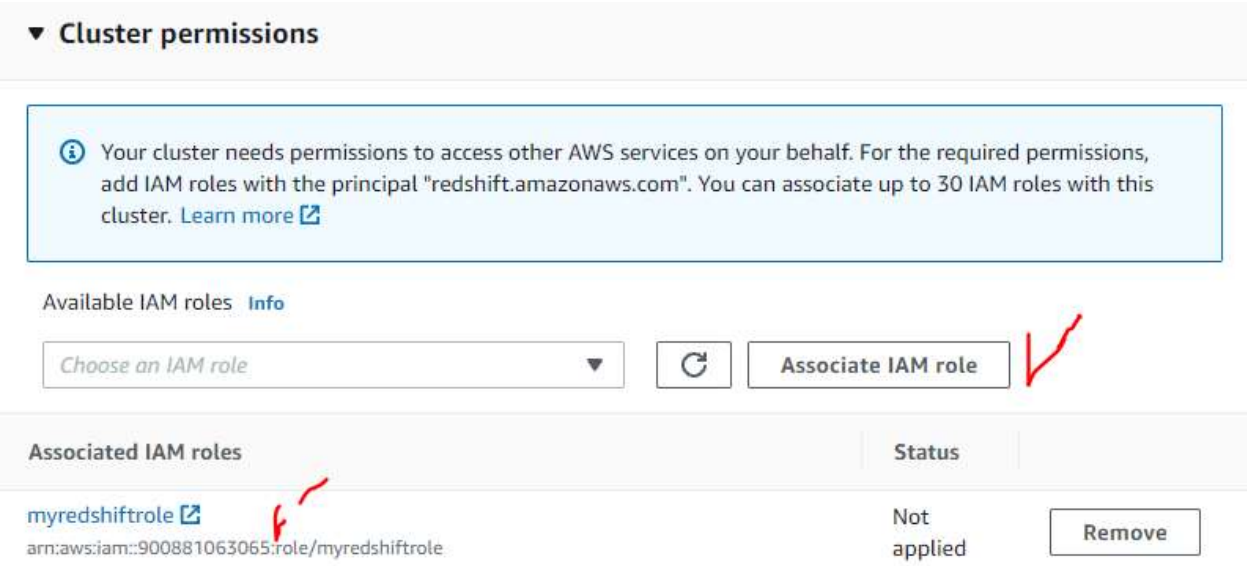


Admin user password: Enter a value for the password.

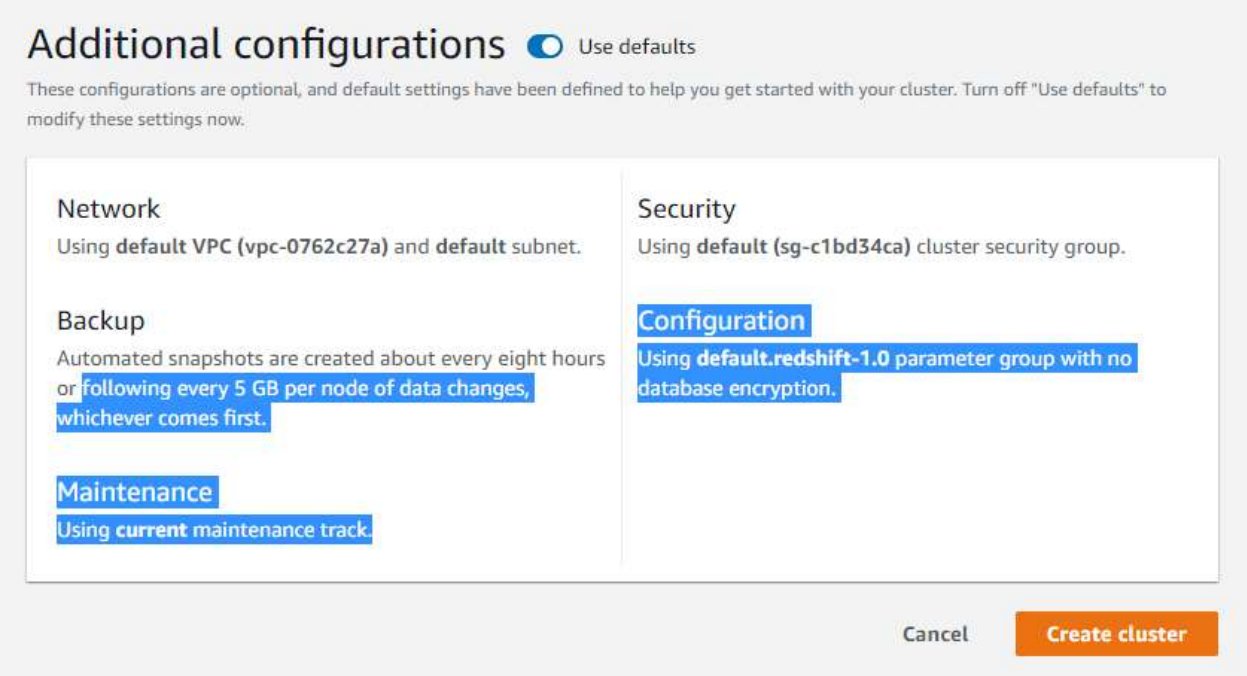
In the Cluster permissions section, for Available IAM roles choose the IAM role that you previously created, myRedshiftRole. Then choose Associate IAM role.



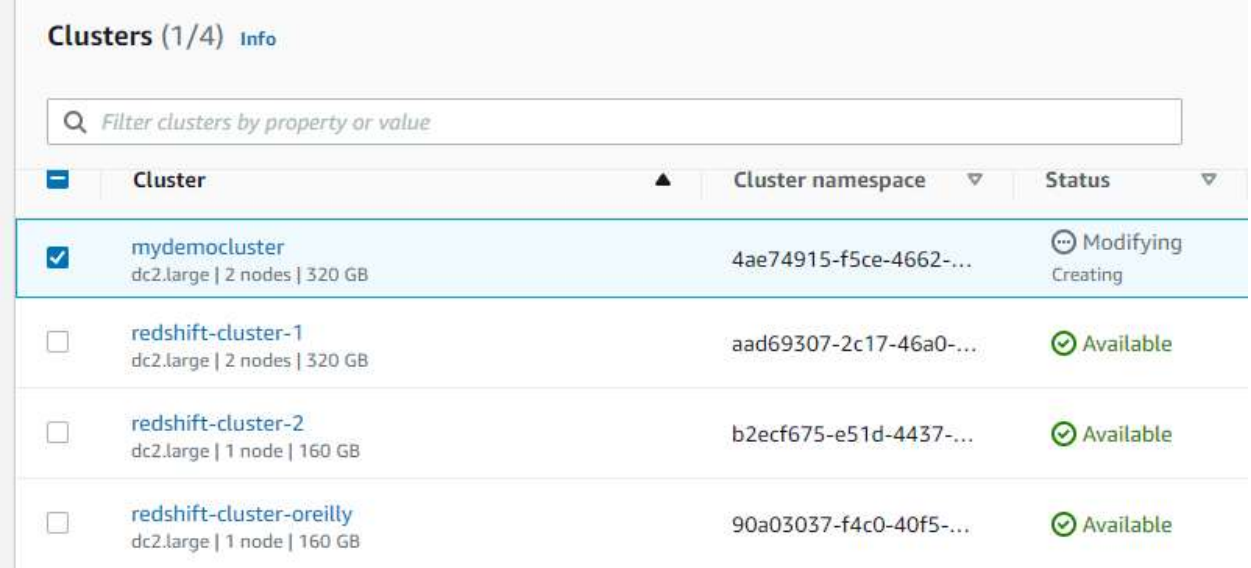
Associate an IAM role to the cluster.



Choose Create cluster.



Cluster will take about 5 -10 minutes to complete.



After the cluster shows “Available” we would now want to connect to the cluster with Query Editor

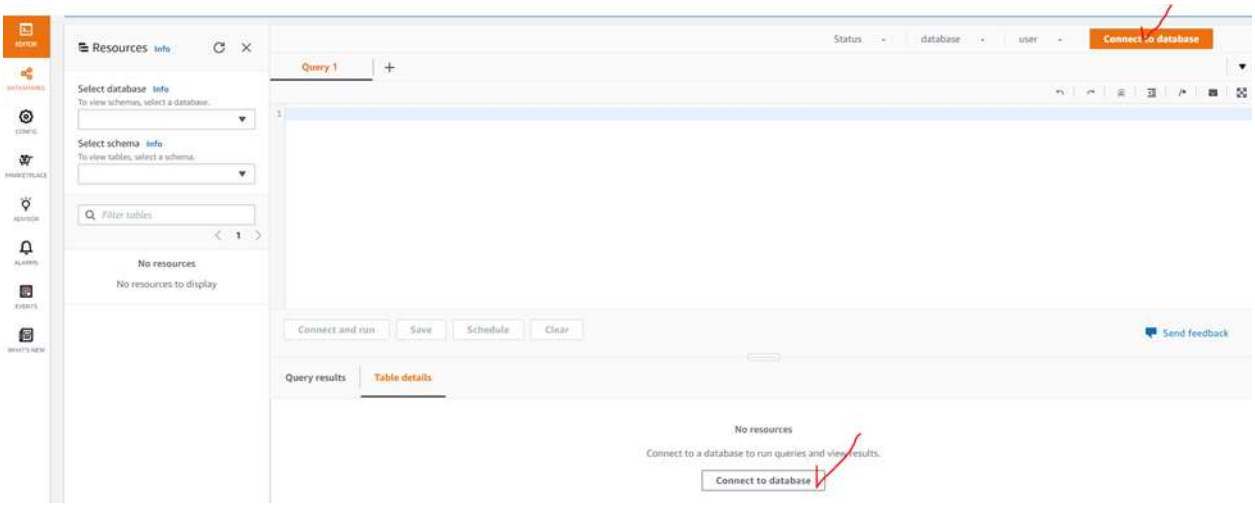
Connect to Cluster from Query Editor

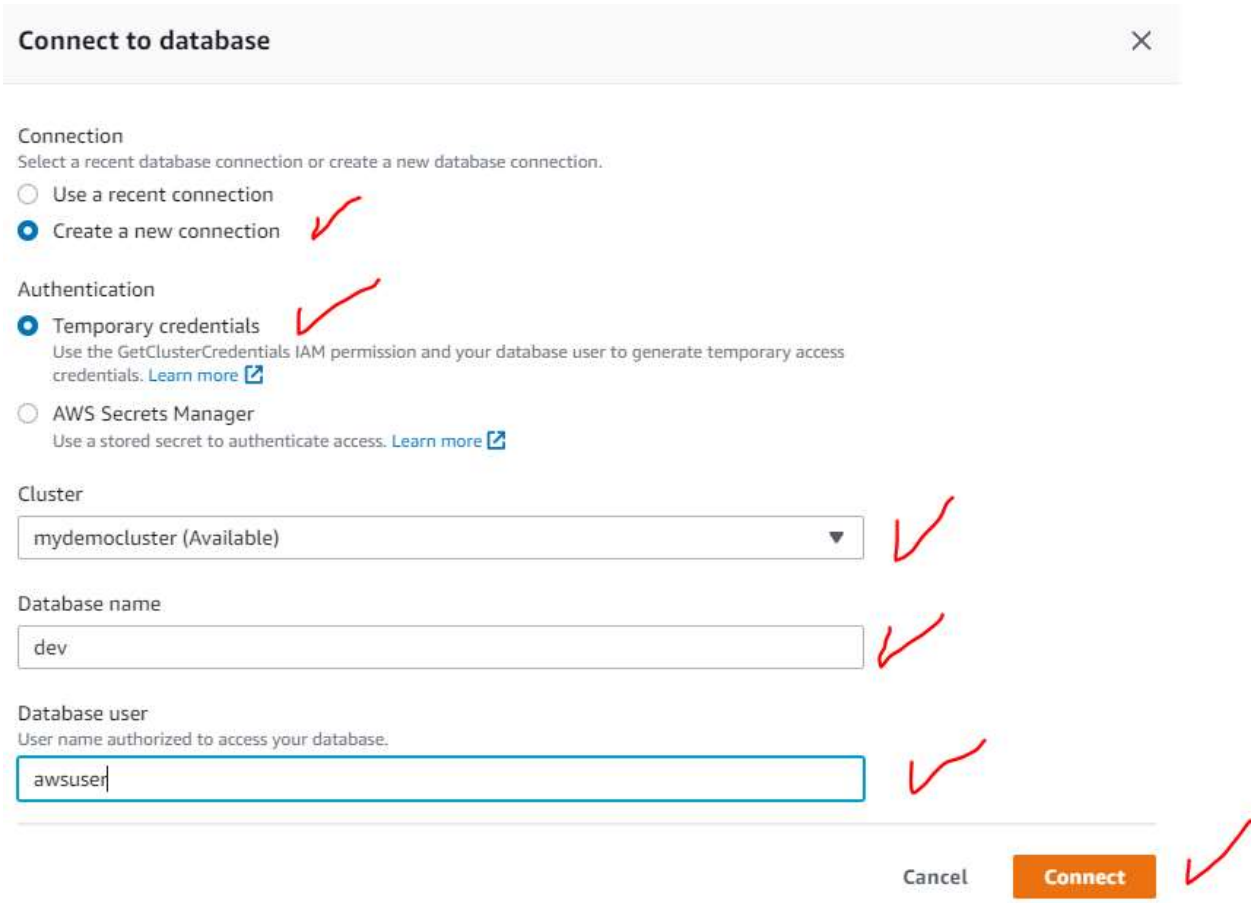
(Note we will config firewall access for access from the internet shortly)

Select the Editor Icon on the left panel.

In this scenario you can use either version of the Query Editor. V1 or V2. For the snaps below it is in V2. Select the cluster “mydemocluster”

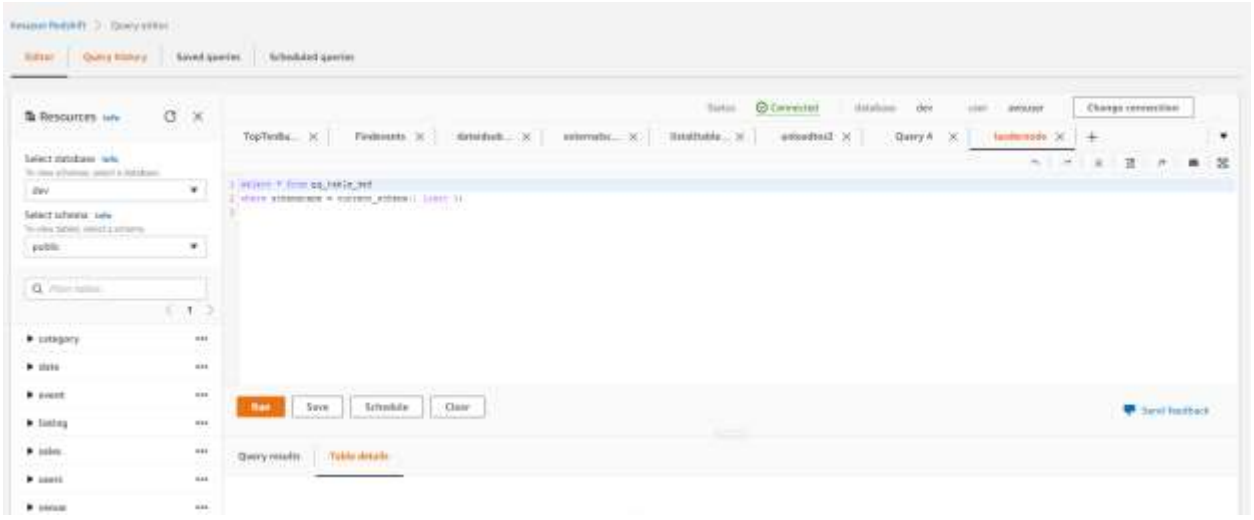
Select “Connect to Database”



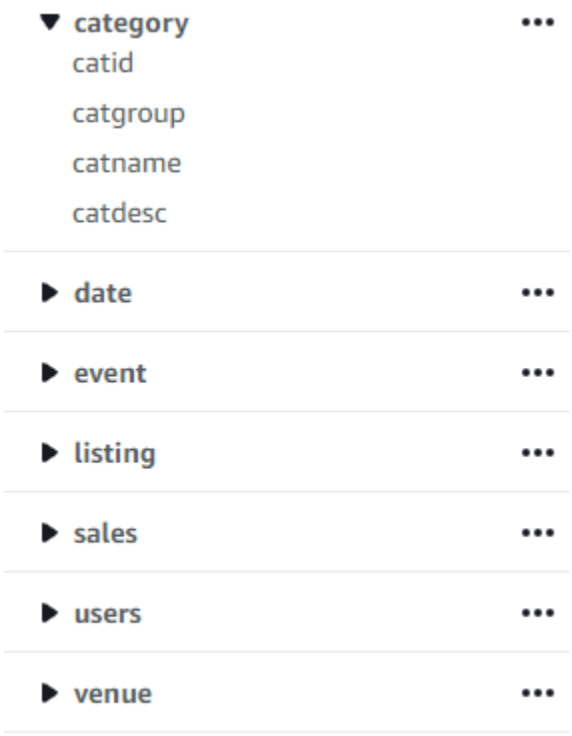


If you receive a SQL error then you likely enter the access information incorrectly. Check again

You should be connected to the database by seeing the following panels. (You wont have any queries yet but will have



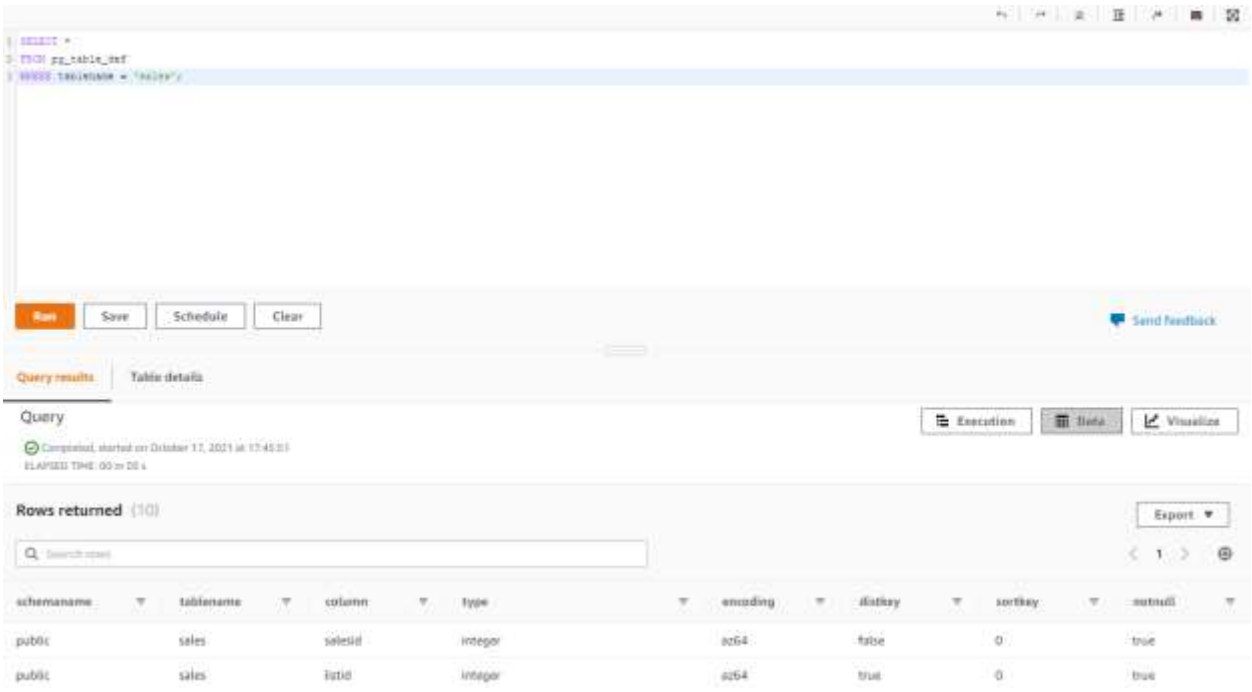
Schema validation



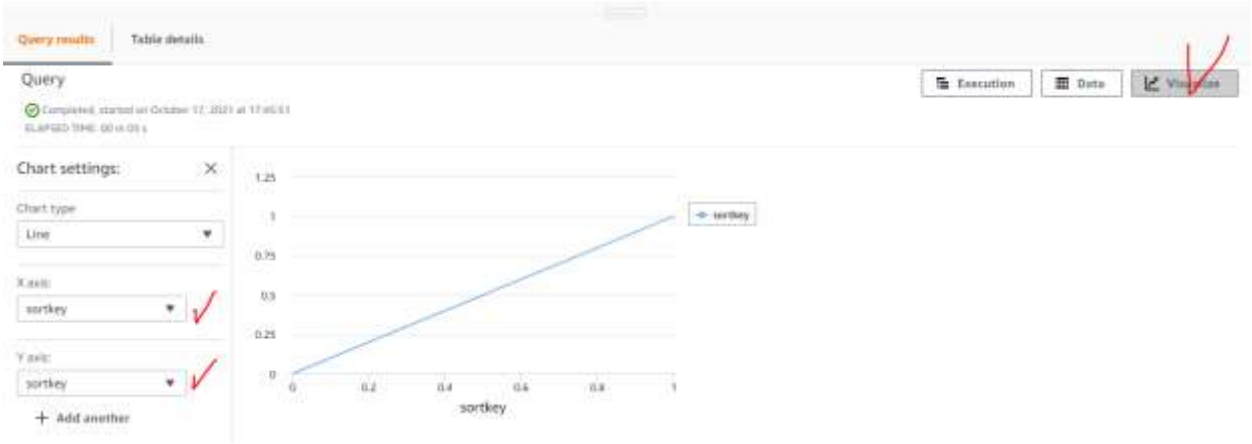
Now lets Query the Sample Data

Copy the following query and paste into query editor.

```
-- Get definition for the sales table.
SELECT *
FROM pg_table_def
WHERE tablename = 'sales';
```



Notice below it also gives the functionality to visualize data.



We are done with this Hands on Exercise. Do not delete since we will be using this cluster for the next few exercises.