Module 7

Redshift Assignment

Problem Statement:

You work for XYZ Corporation. Their application requires a database service that can store data which can be retrieved if required. Implement suitable service for the same. While migrating, you are asked to perform the following tasks:

1. Create a Redshift data warehouse.

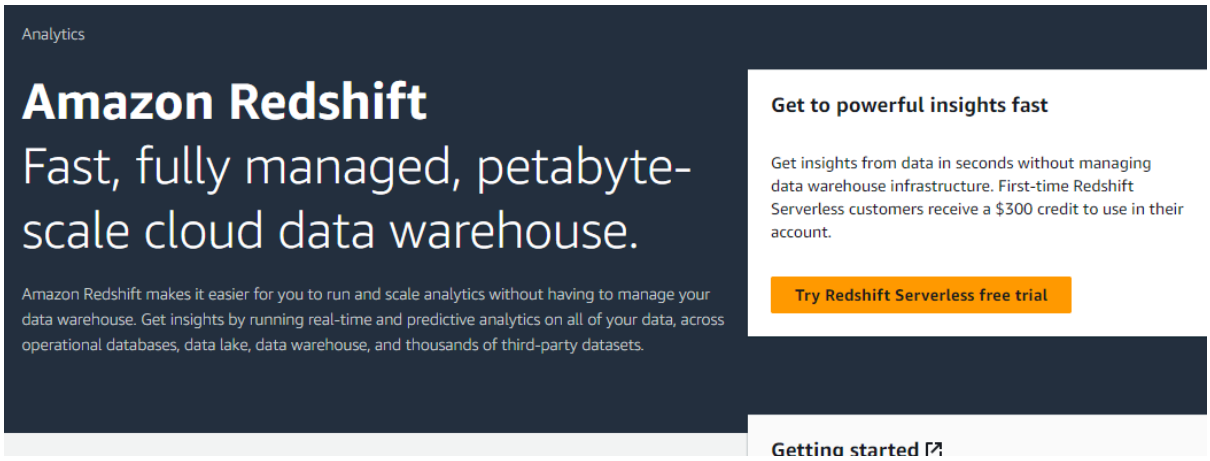
2. Using the query editor:

    a. Load some data

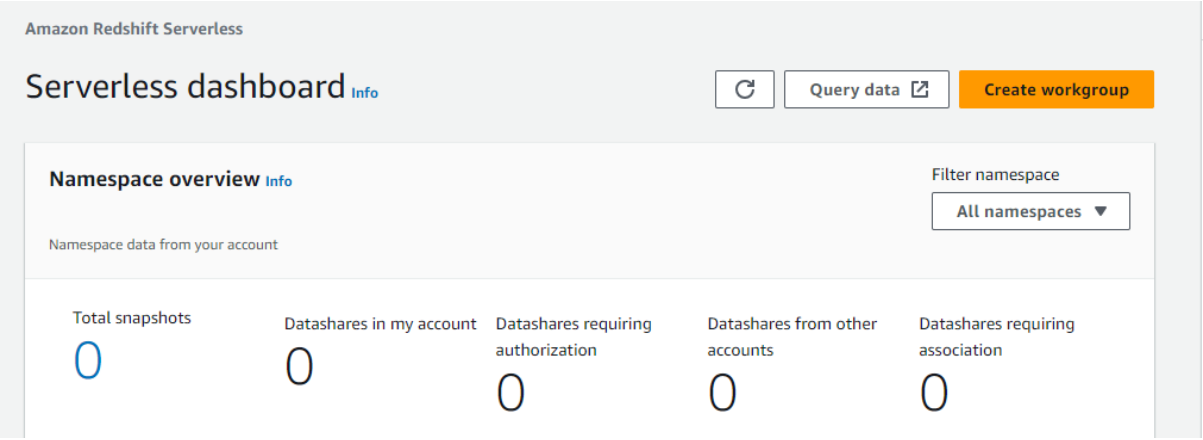
    b. Query the data

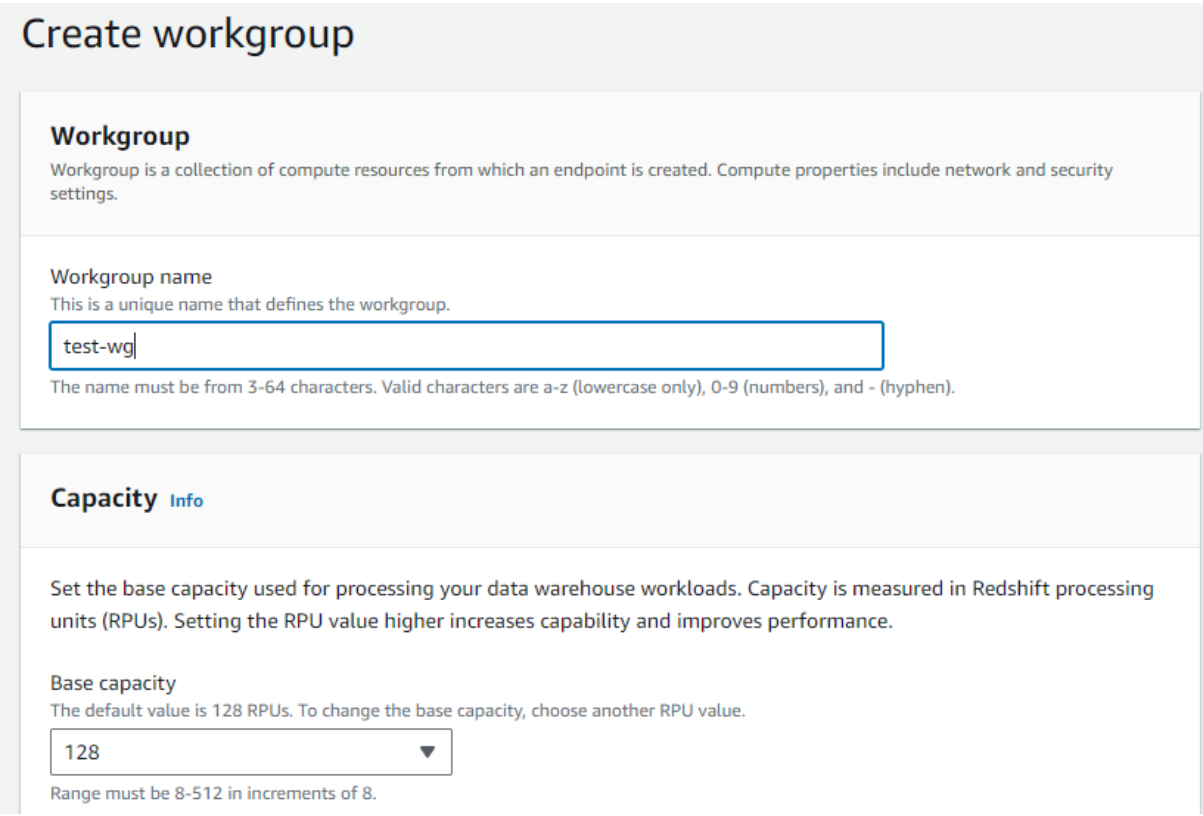
Solutions:

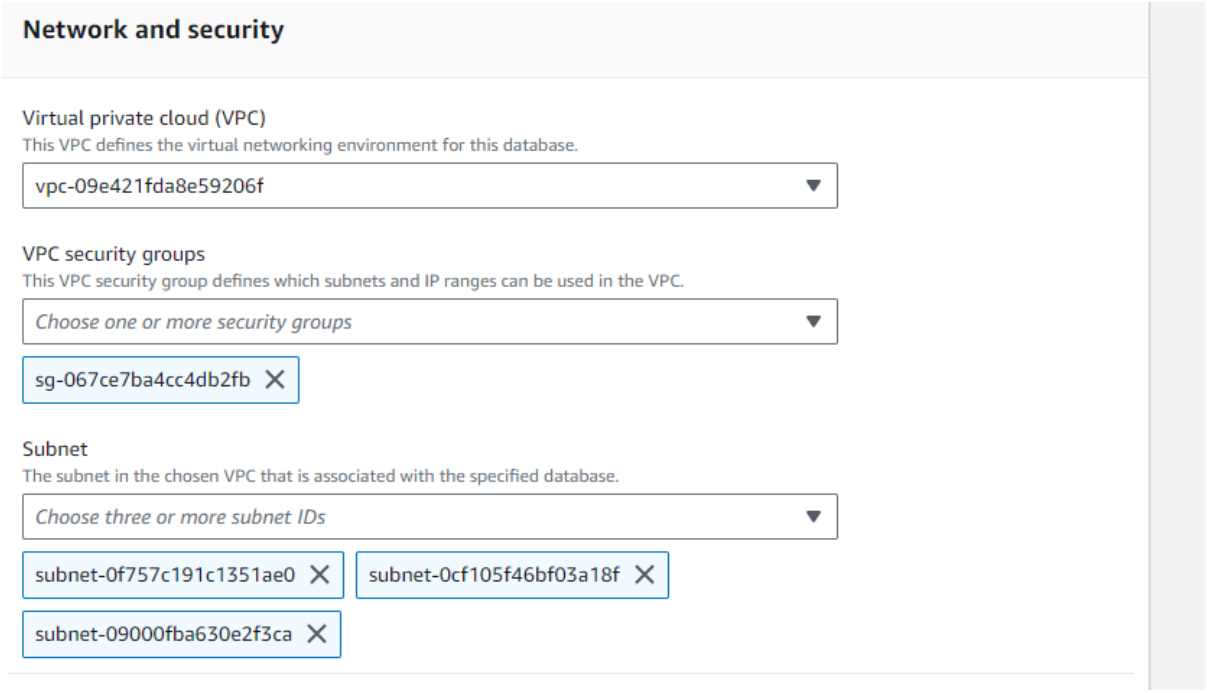
Open Amazon Redshift



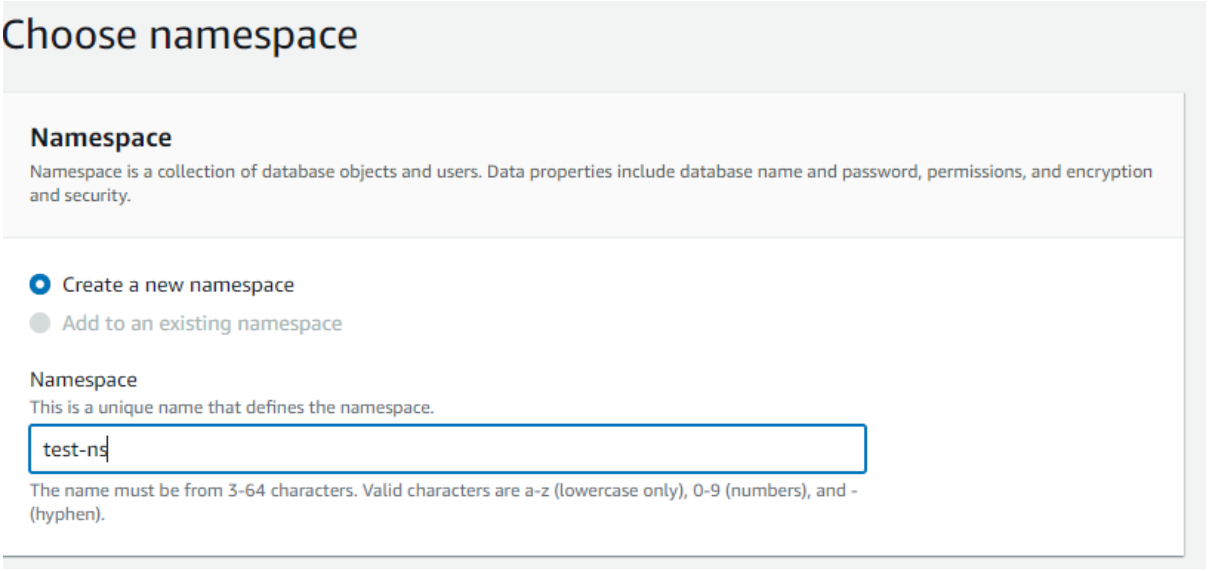
Create workgroup



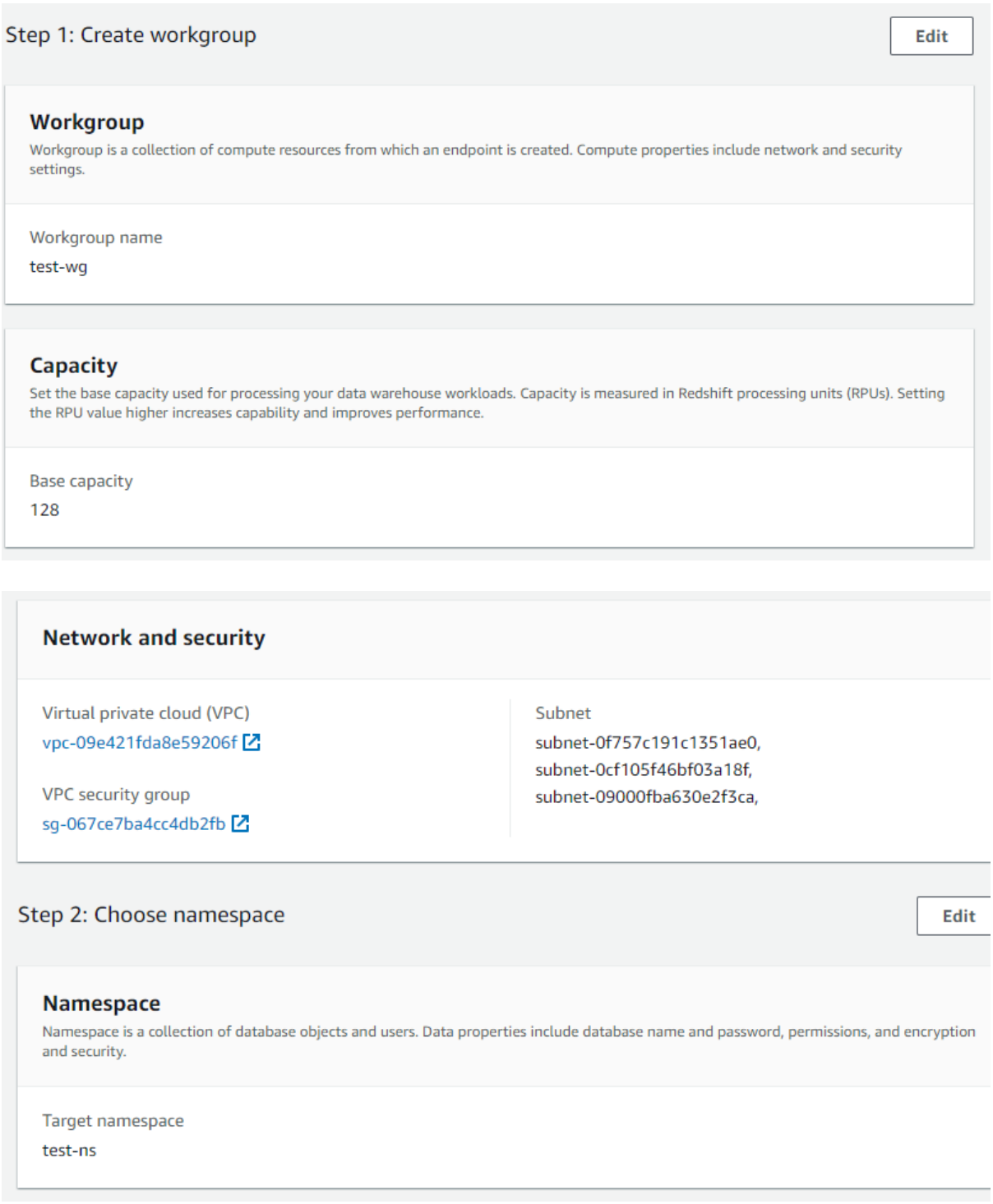


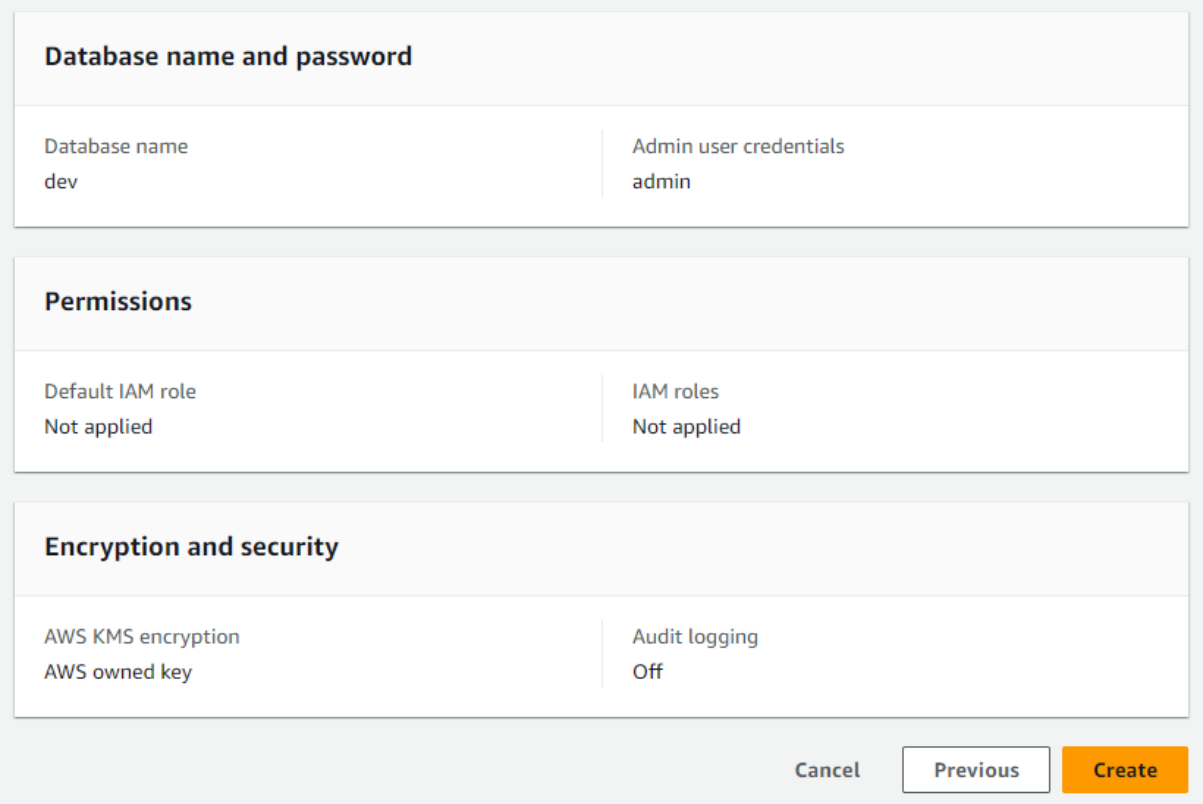


Create Namespace for workgroup

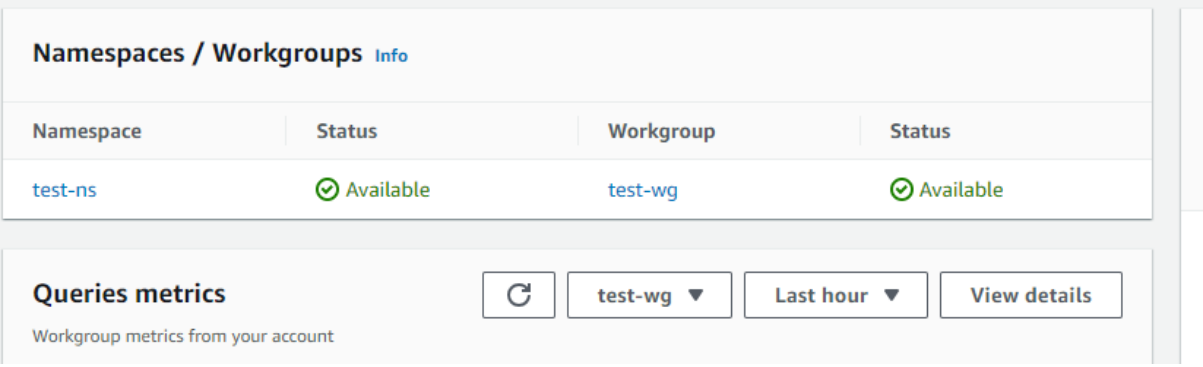


Review the data and Create

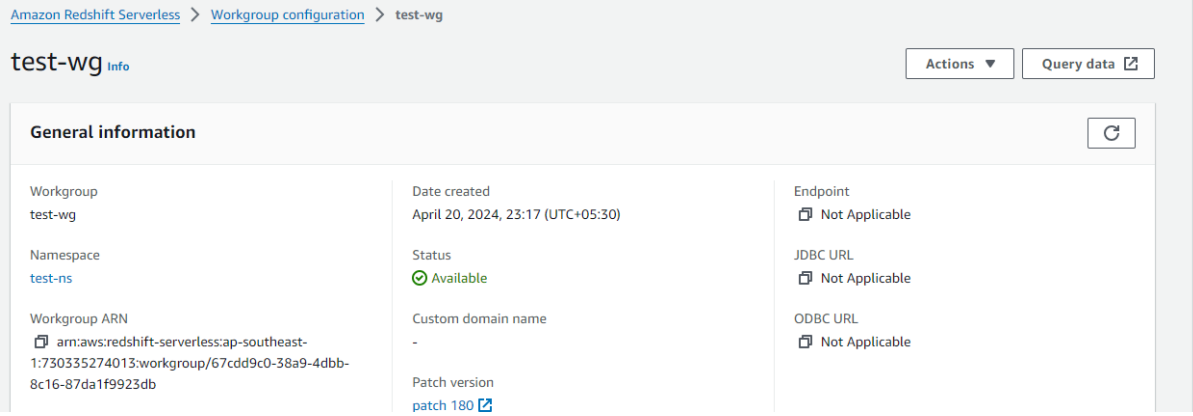




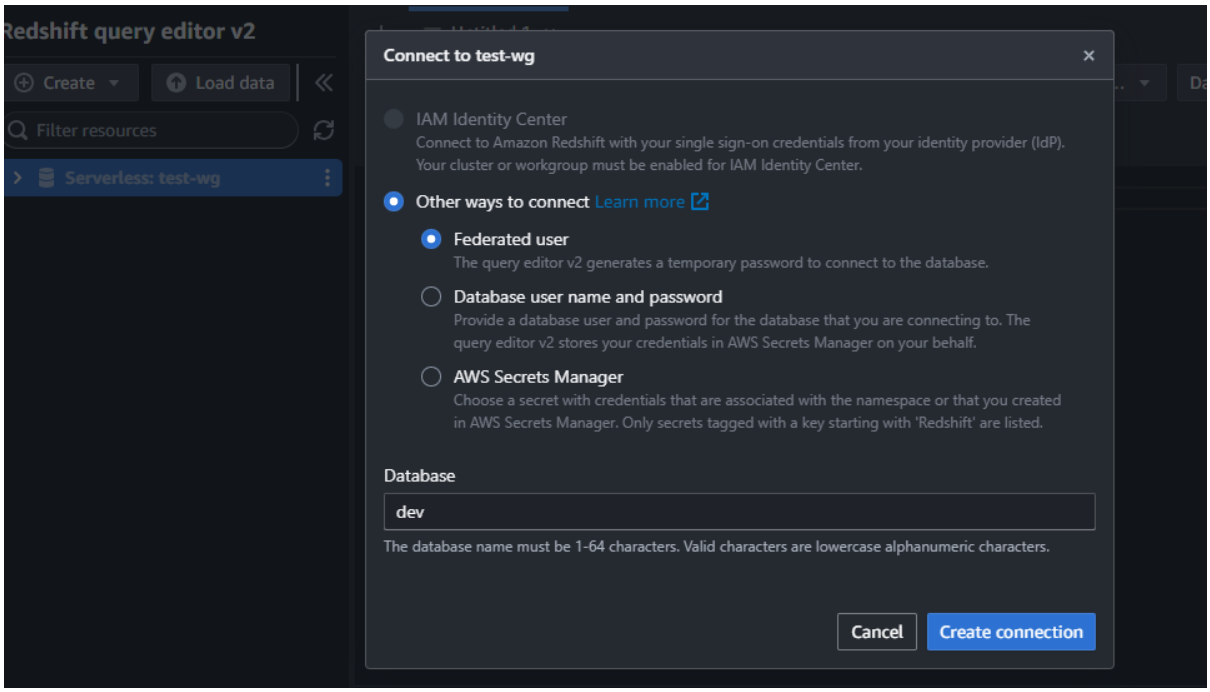
Namespace/ Workgroup is being created



Click on the Query data

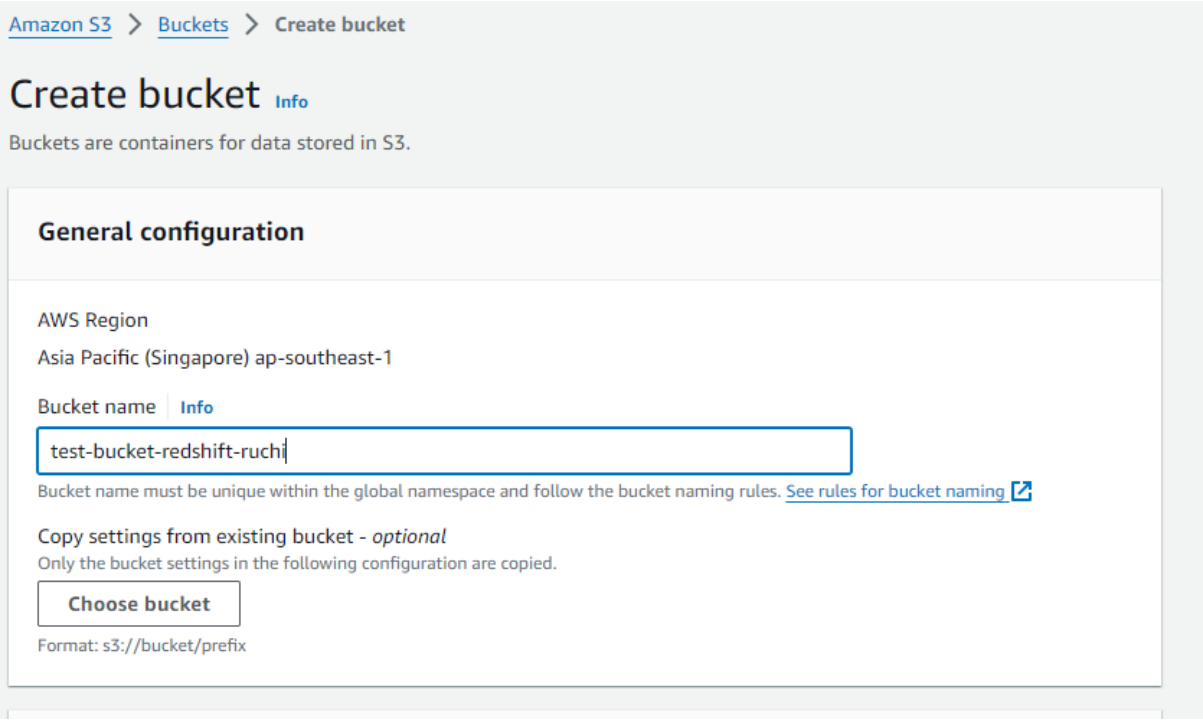


Select Federated user and dev Database > Create connection

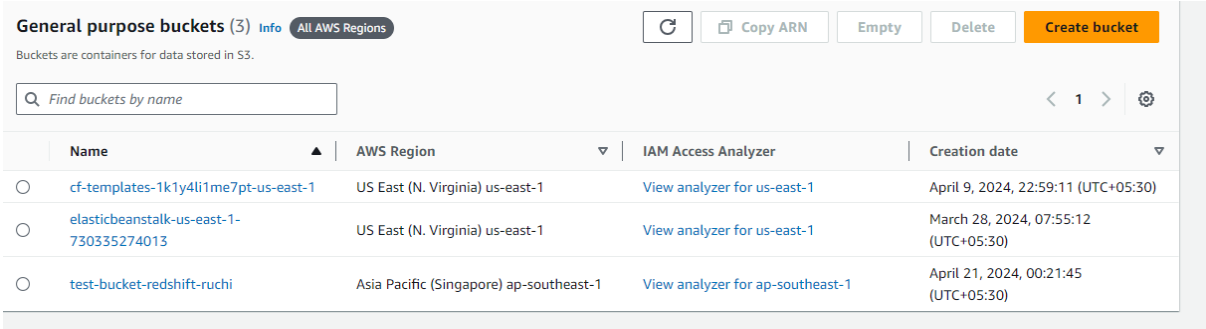


To Load Data First create S3 Bucket

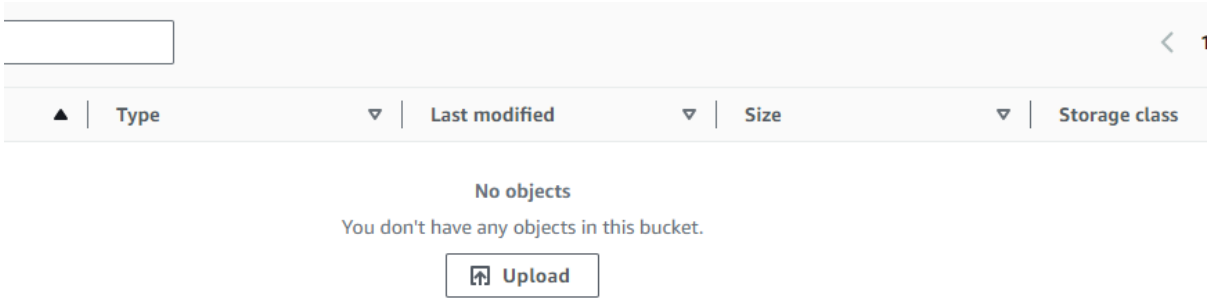
So that the data can be loaded through S3 bucket



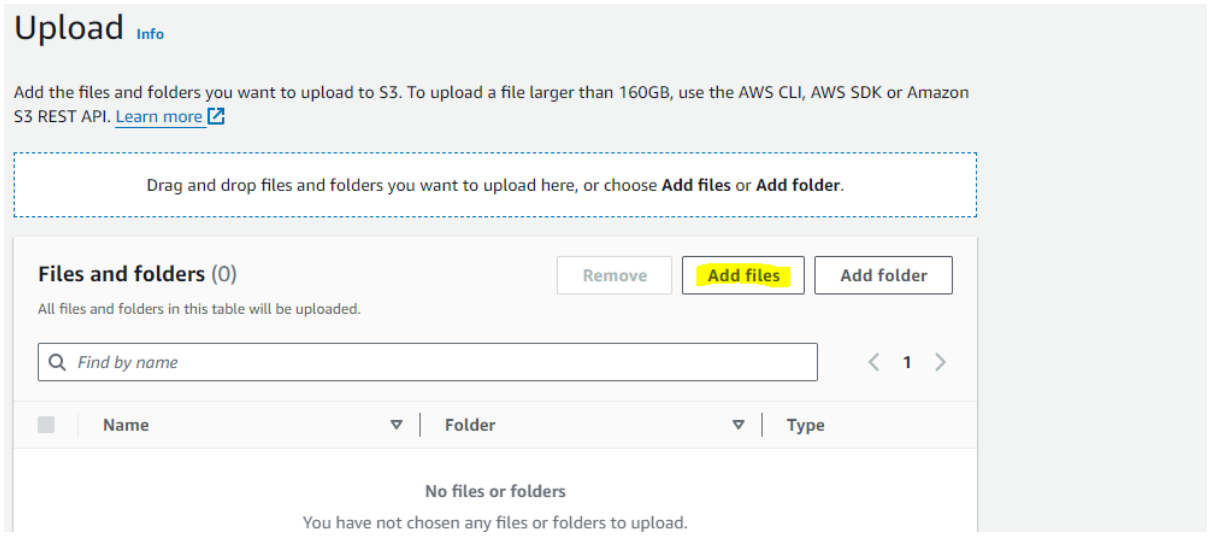
Give name and create Bucket

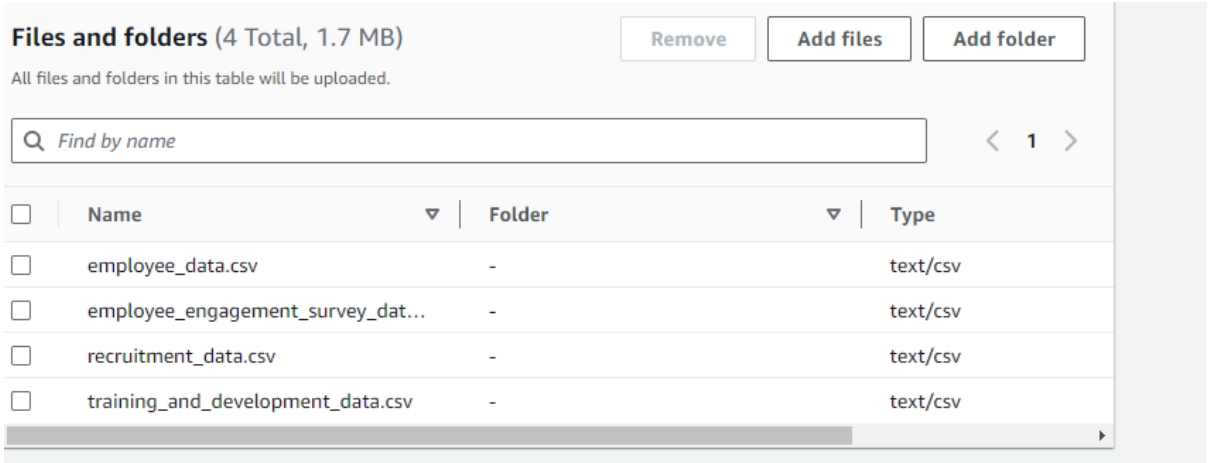


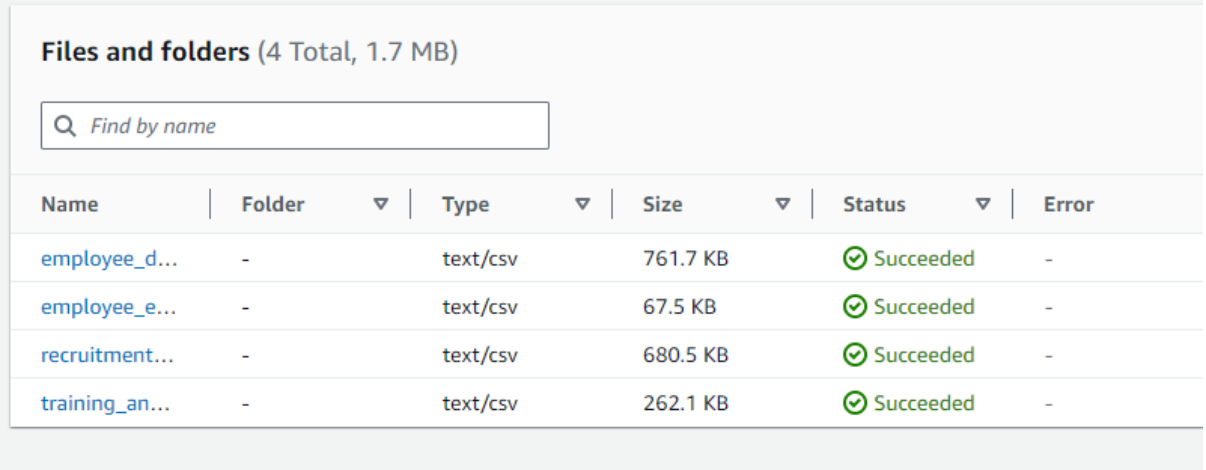
Then Upload the Csv file



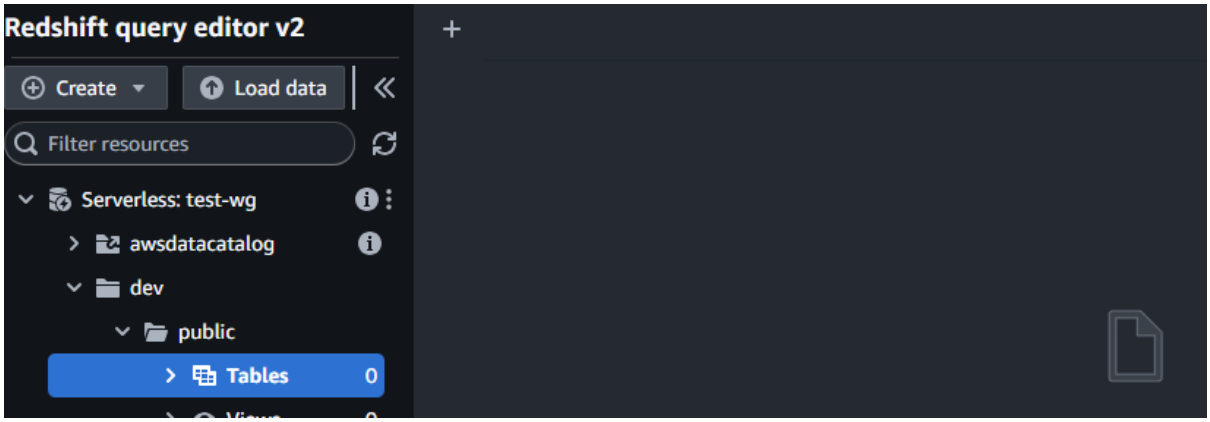
Add and upload the file here



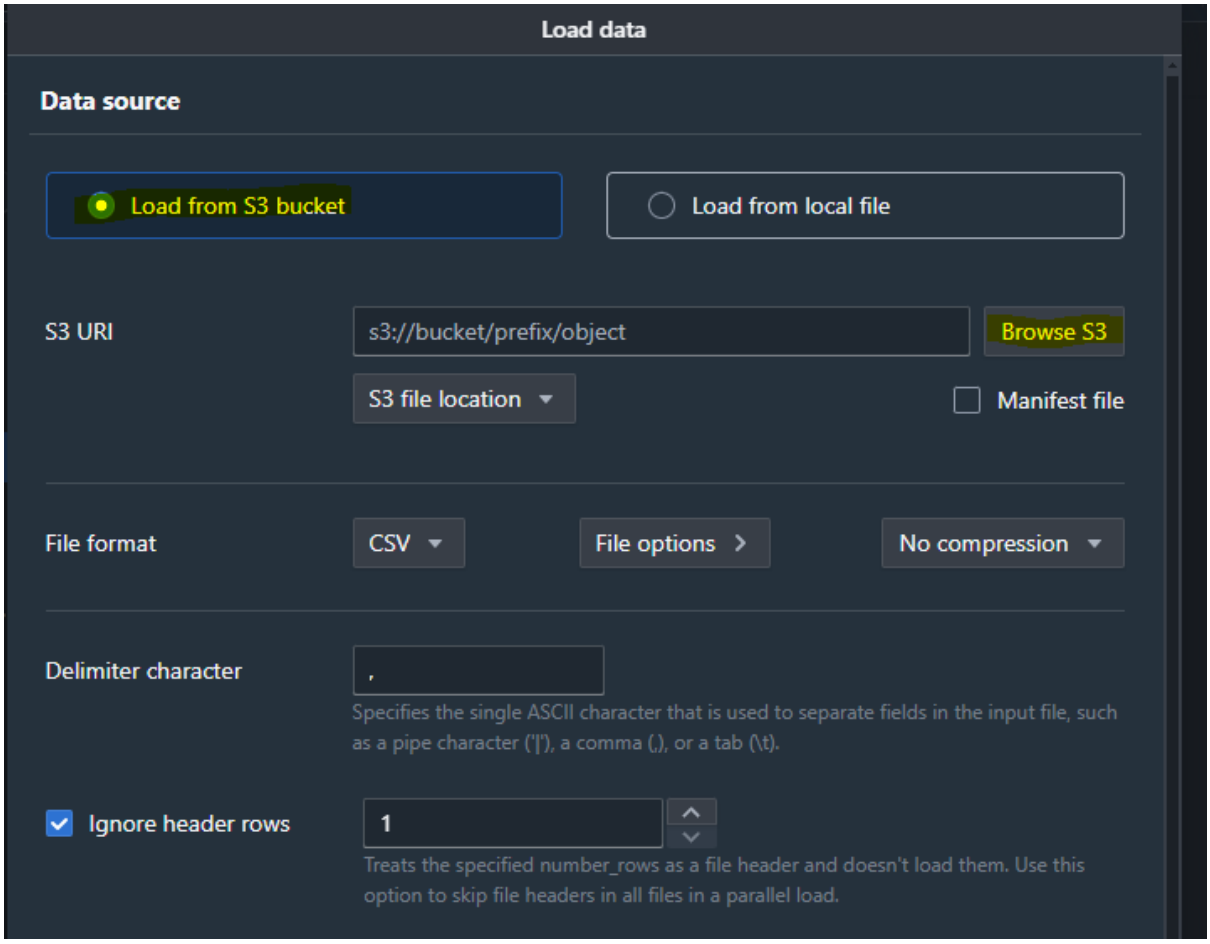




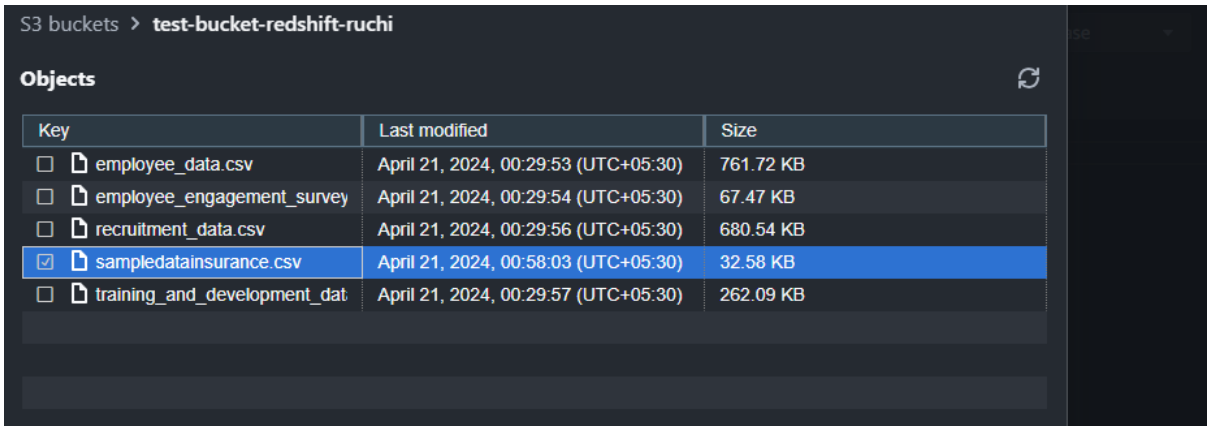
Now go to Redshift query editor and Load the data



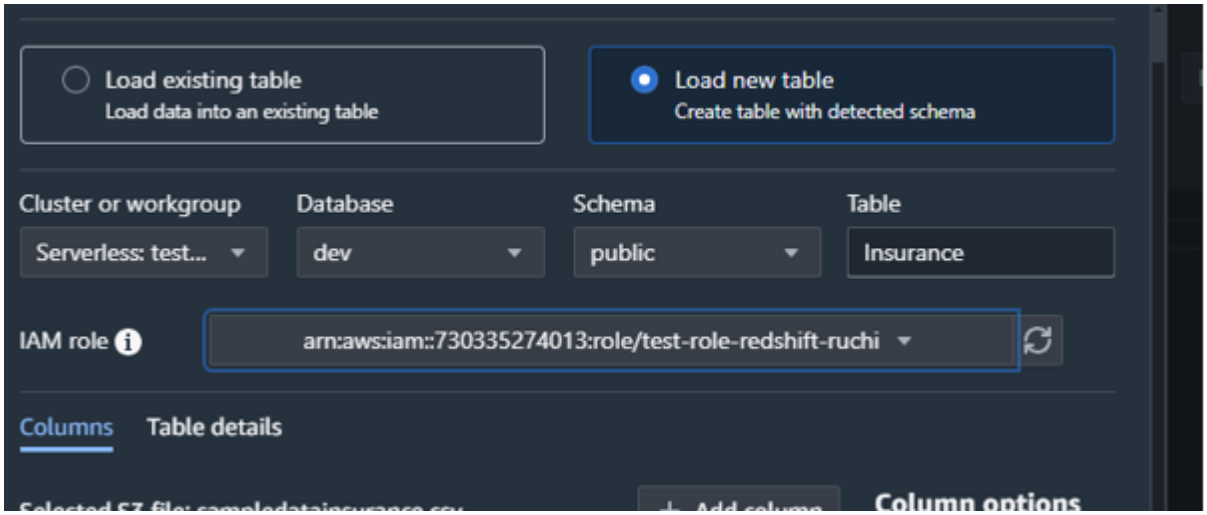
Select Load from S3 bucket, then Browse and select the Csv files



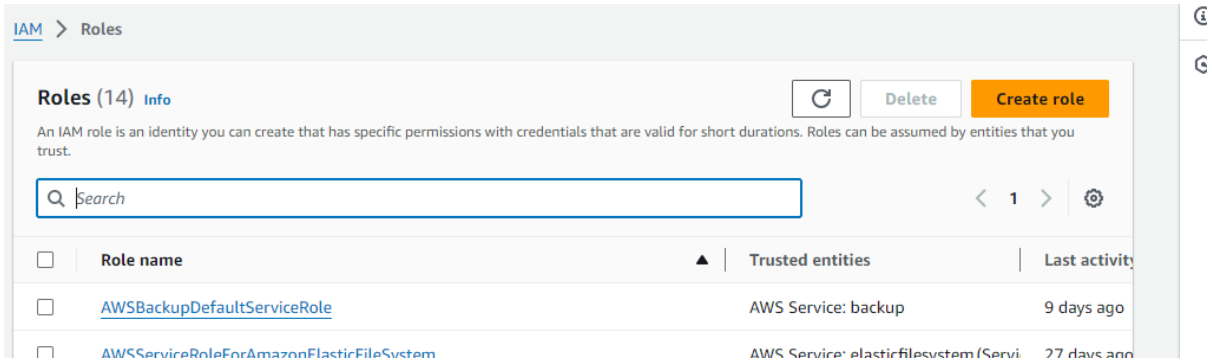
Select the File key and give Next



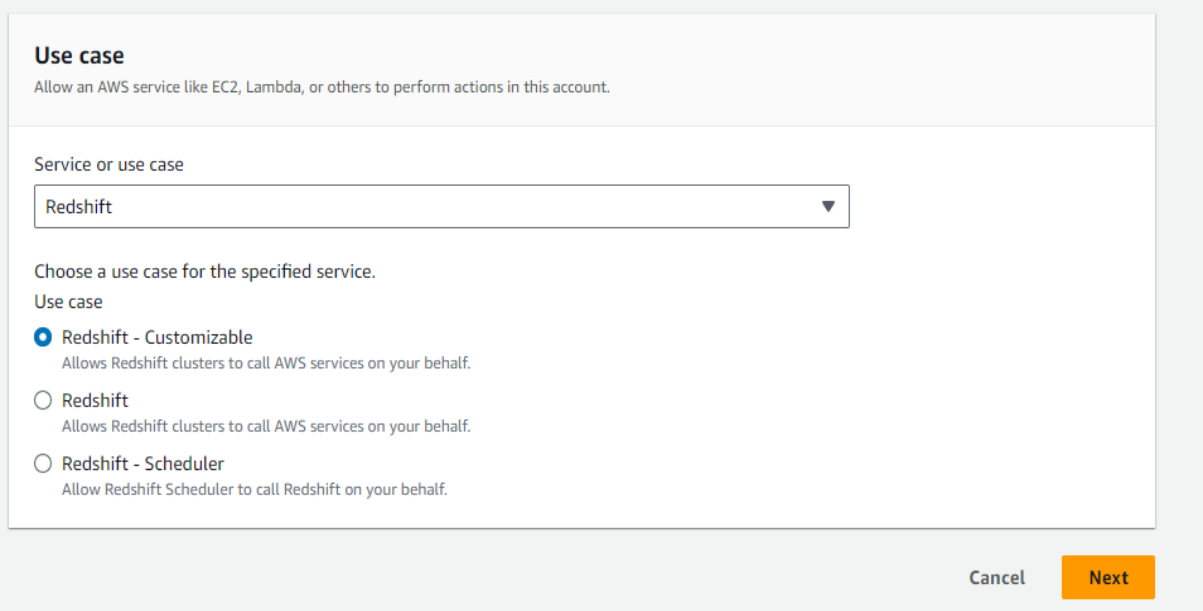
Choose Load new table and select IAM role



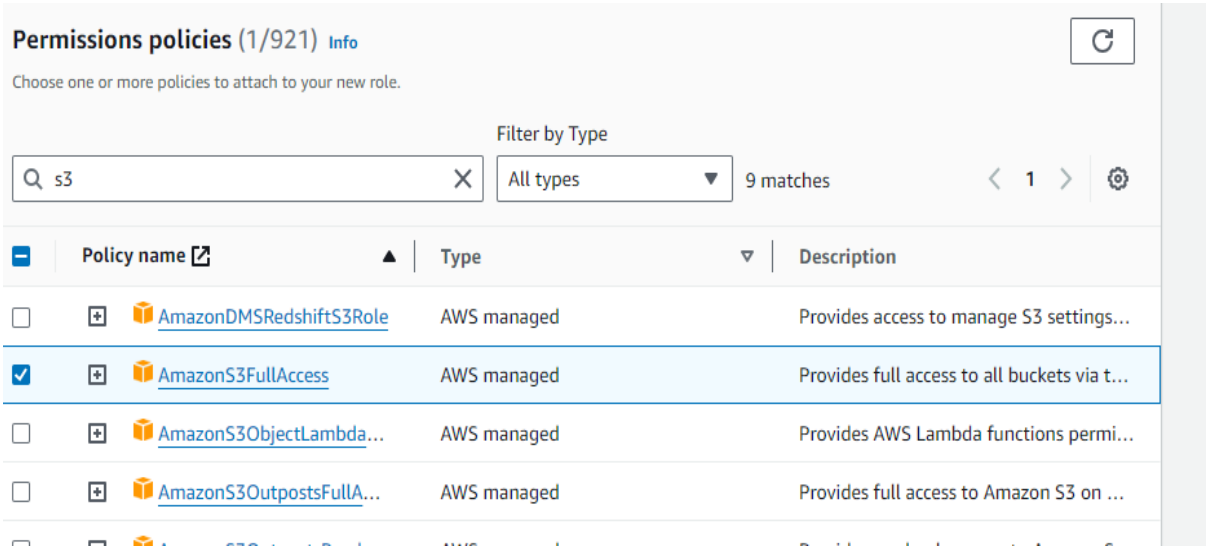
If IAM Role not present Create a new Role for Redshift



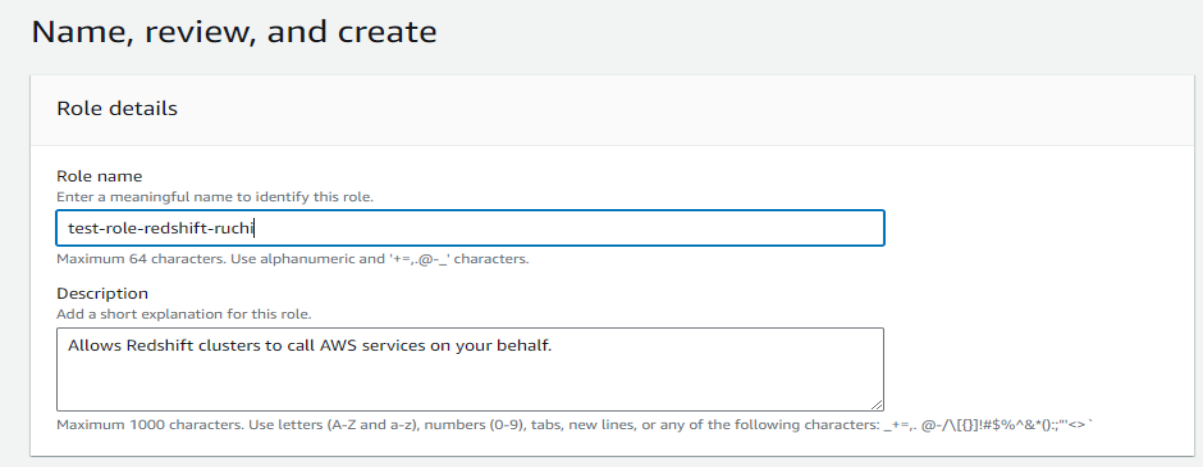
Choose the Service as Redshift and Click Next

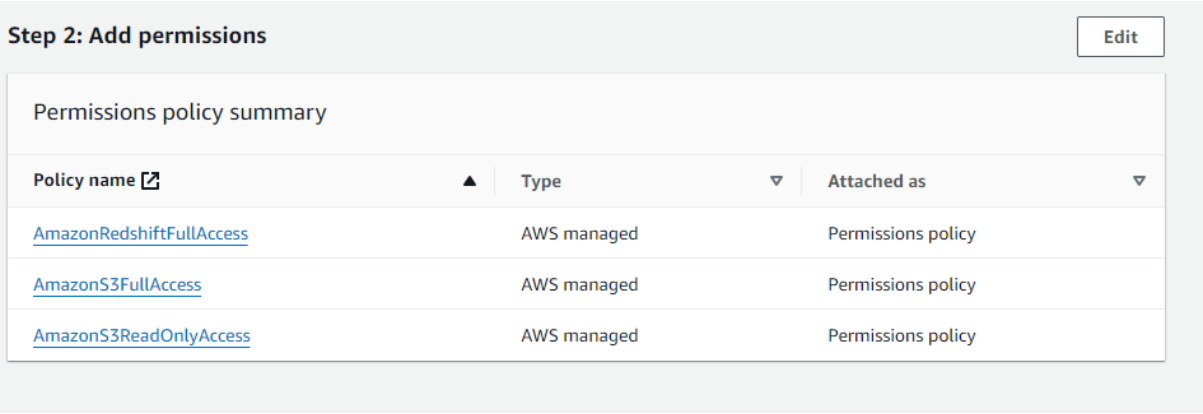


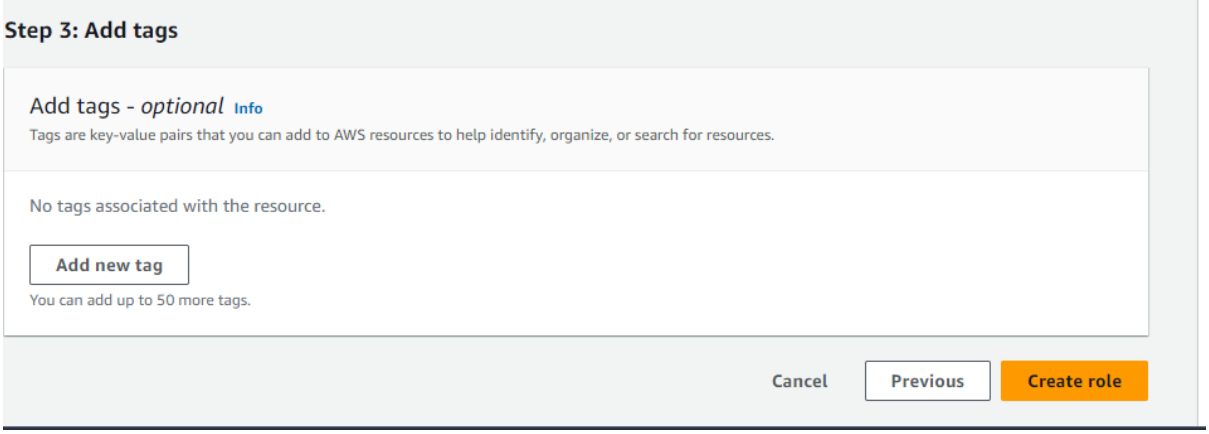
Select the Policies: S3fullAccess, RedshiftFullAccess, S3ReadOnlyAccess



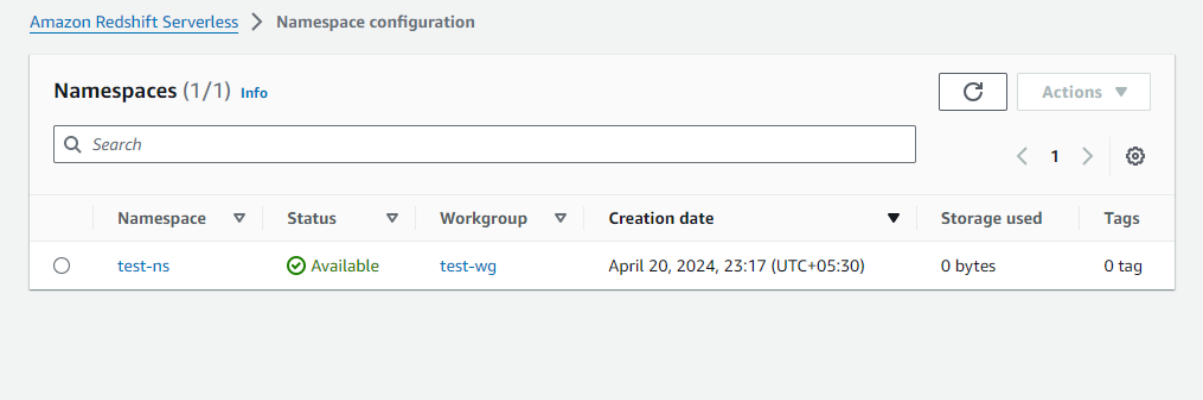
Review and Create the Role.


Name, review, and create
Role details
Role name
Enter a meaningful name to identify this role.
test-role-redshift-ruchi
Maximum 64 characters. Use alphanumeric and '+=,.@-_' characters.
Description
Add a short explanation for this role.
Allows Redshift clusters to call AWS services on your behalf.
Maximum 1000 characters. Use letters (A-Z and a-z), numbers (0-9), tabs, new lines, or any of the following characters: _+=,. @-/\[{}]!#$%^&*();"'<>`

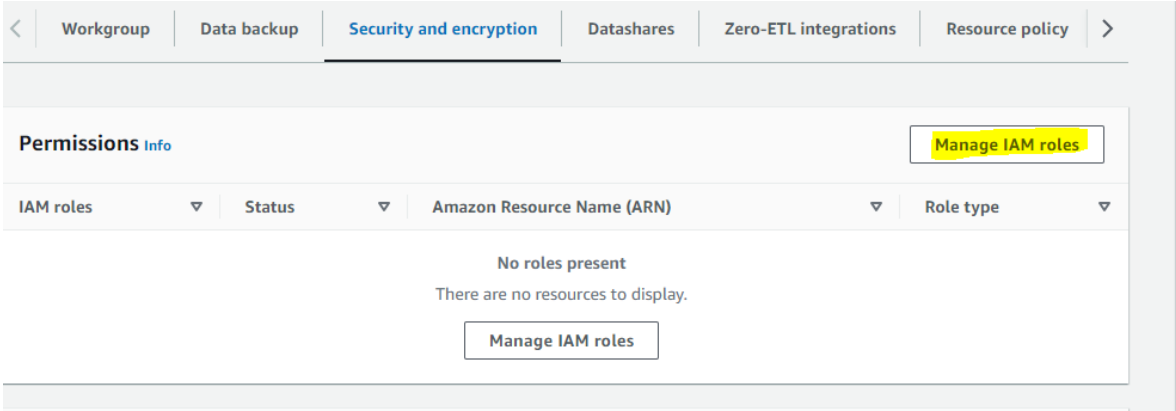

Step 2: Add permissions
Edit
Permissions policy summary
Policy name
Type
Attached as
AmazonRedshiftFullAccess
AWS managed
Permissions policy
AmazonS3FullAccess
AWS managed
Permissions policy
AmazonS3ReadOnlyAccess
AWS managed
Permissions policy


Step 3: Add tags
Add tags - optional
Info
Tags are key-value pairs that you can add to AWS resources to help identify, organize, or search for resources.
No tags associated with the resource.
Add new tag
You can add up to 50 more tags.
Cancel
Previous
Create role

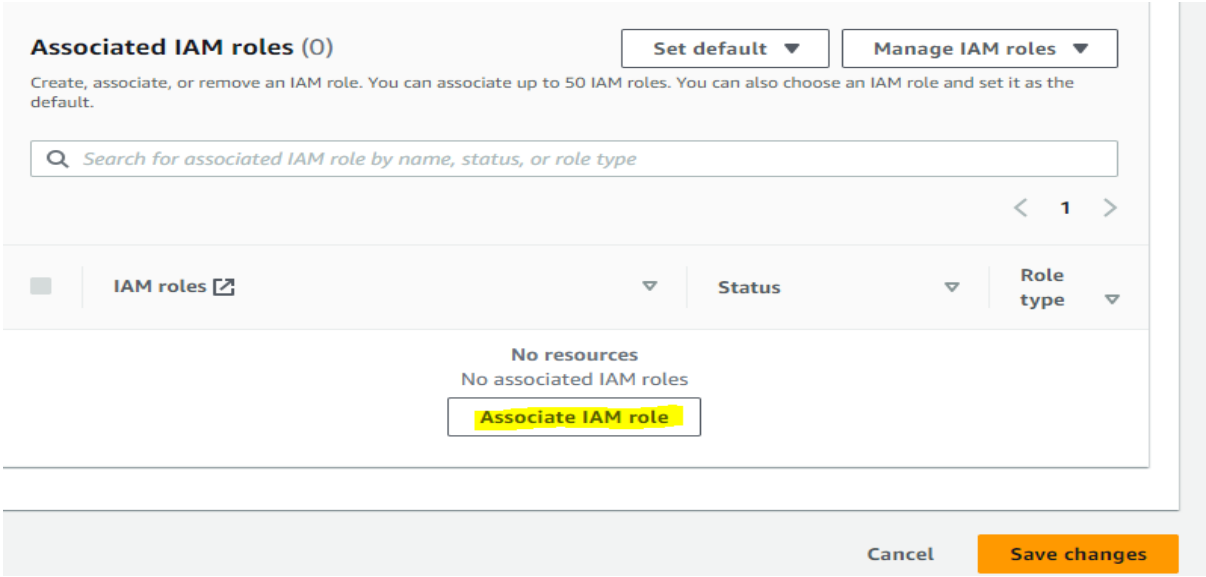
Create the Name configuration under Redshift to Manage the role for Redshift



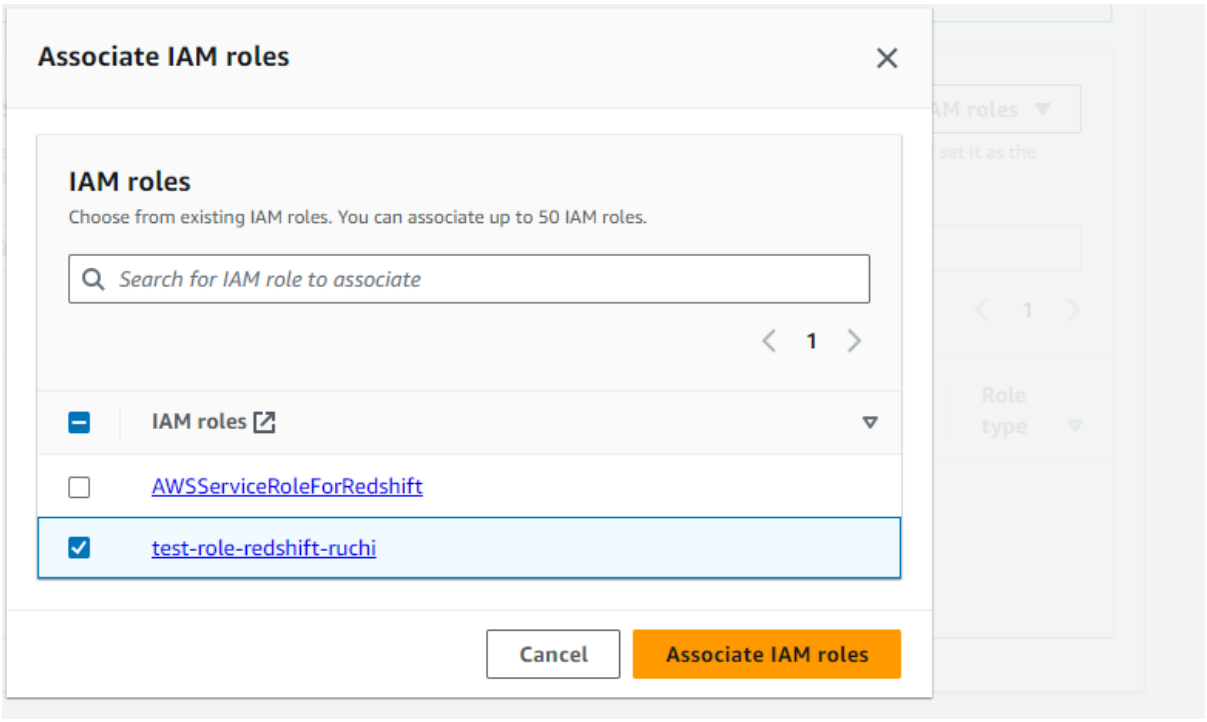
Click on security & encryption tab and click on Manage IAM Role



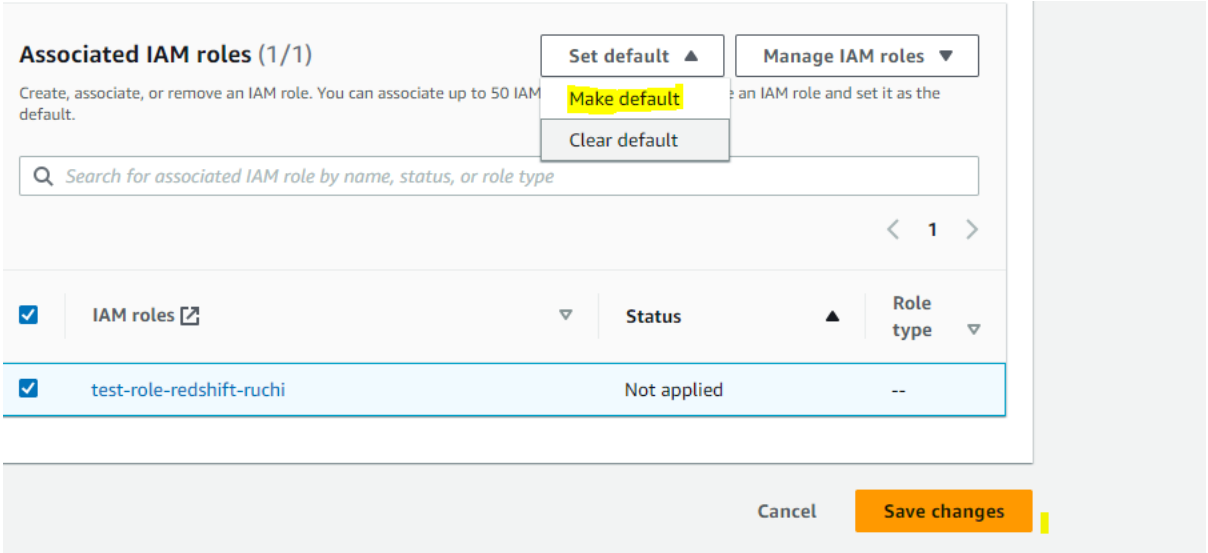
Choose Associate IAM role



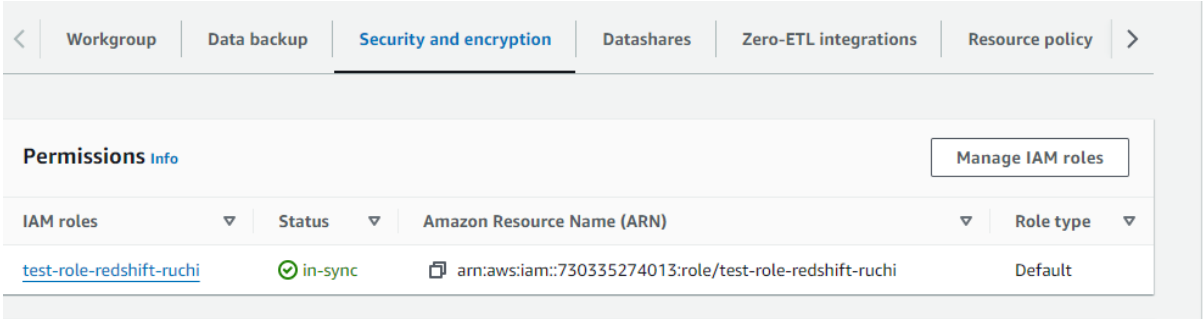
Select the created IAM role



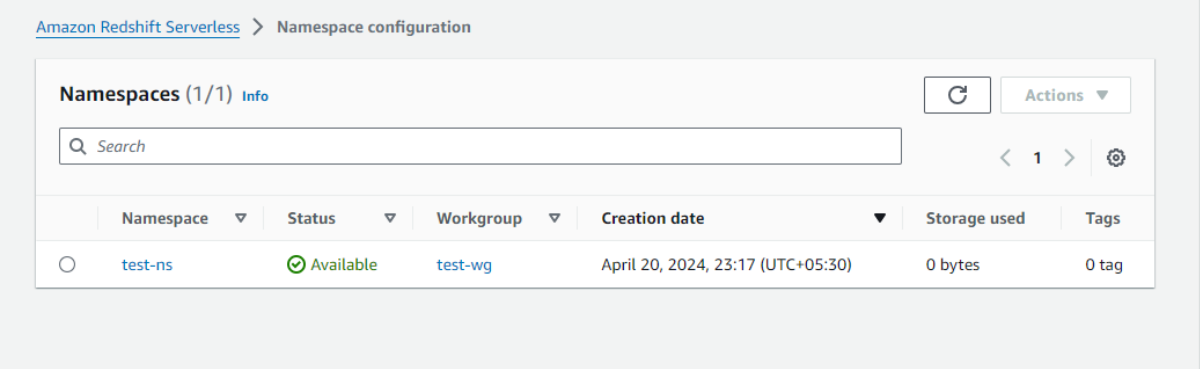
Set the default as Make default and save the changes



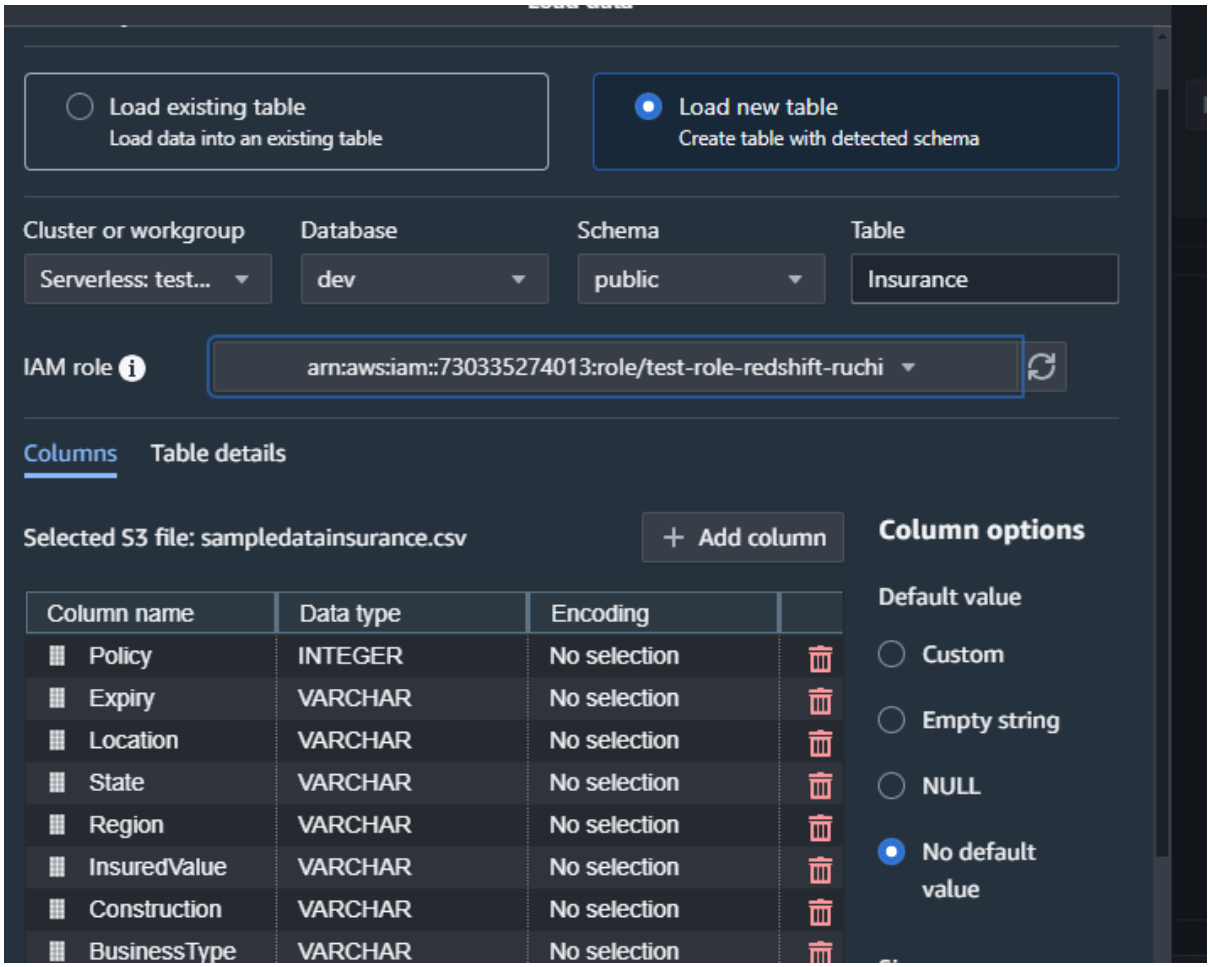
Associated IAM role is created

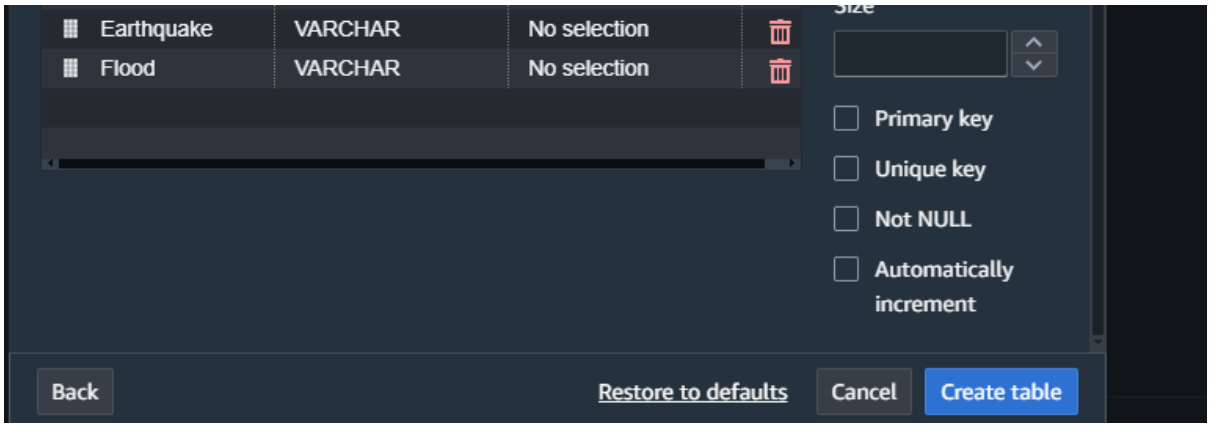


Namespace configuration is Created

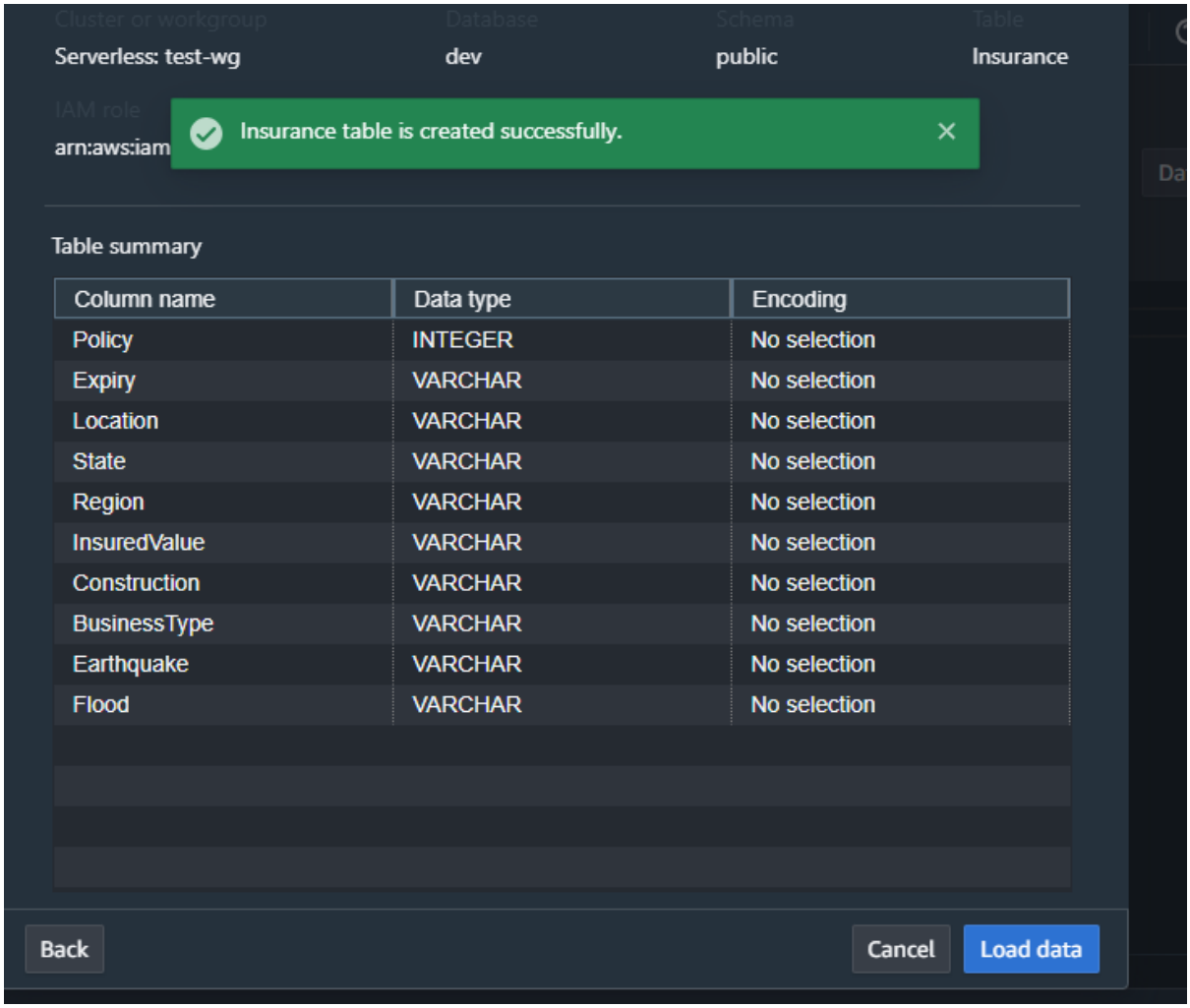


Now IAM Role will reflect then mention the following configuration and create table

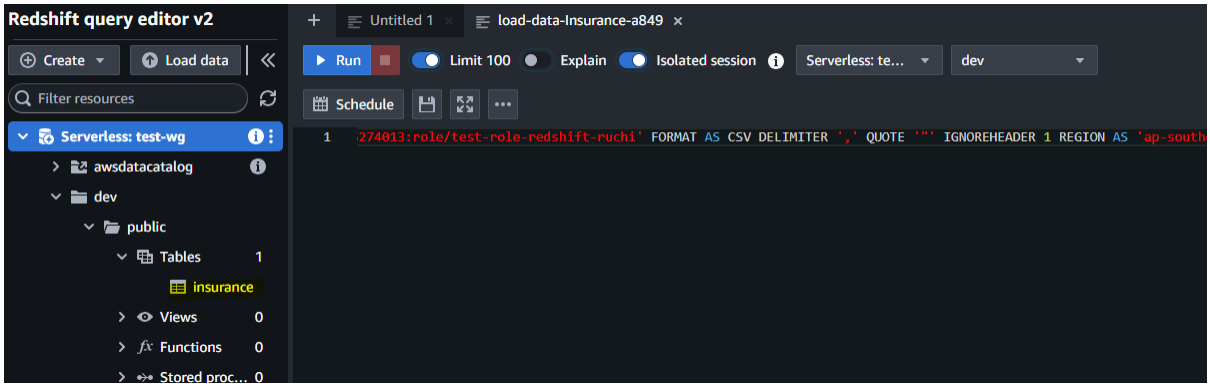




Click on Load Data

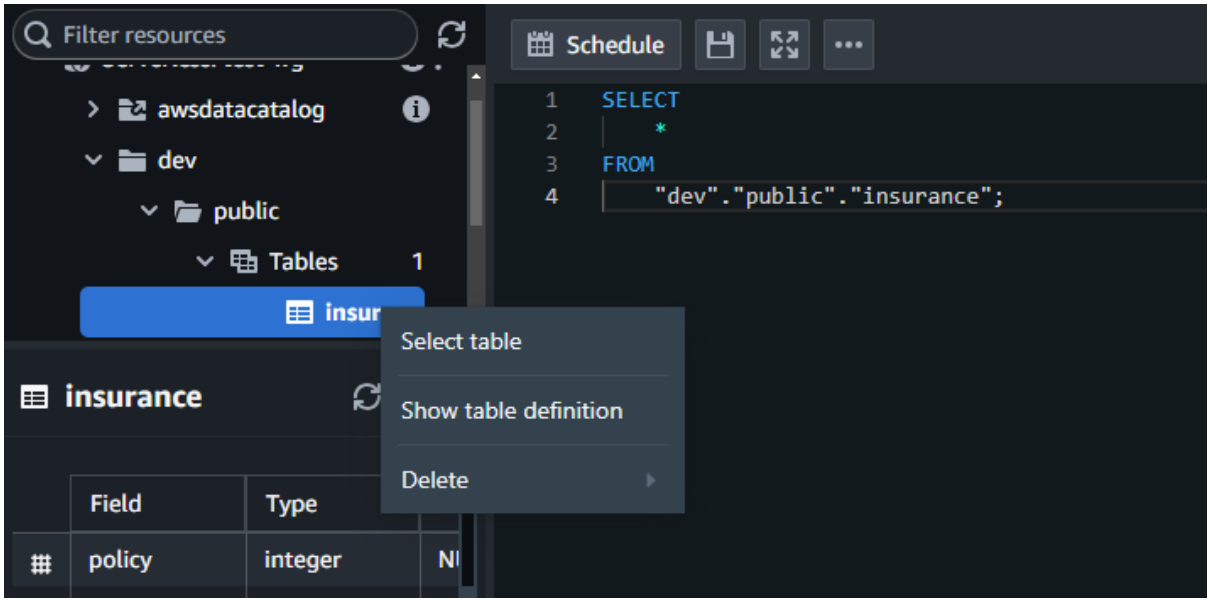


Query is reflecting

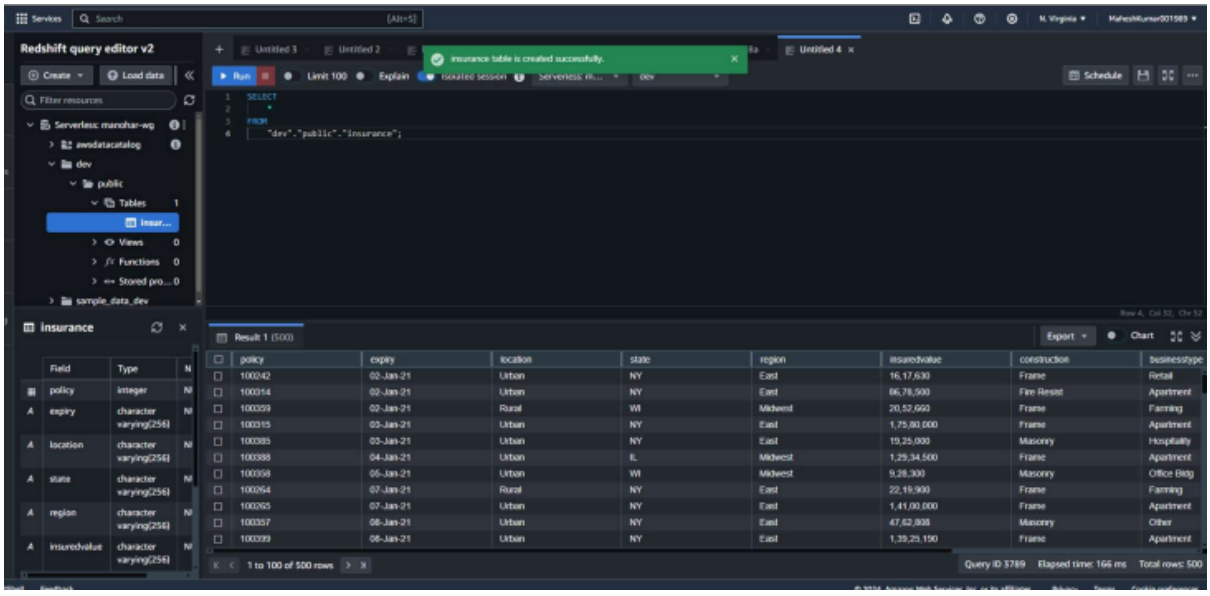



```
COPY dev.public.Insurance FROM 's3://test-bucket-redshift-ruchi/sampledatainsurance.csv' IAM_ROLE 'arn:aws:iam::730335274013:role/test-role-redshift-ruchi' FORMAT AS CSV DELIMITER ',' QUOTE '"' IGNOREHEADER 1 REGION AS 'ap-southeast-1'
```

Right click the insurance, select Table and Then Run the query



The data will be loaded after running the query



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