Seamless Data Integration between AWS RDS Aurora MySQL and Amazon Redshift

Here's a combined and refined document summarizing the steps for setting up Zero ETL integration between Amazon Aurora MySQL and Amazon Redshift.

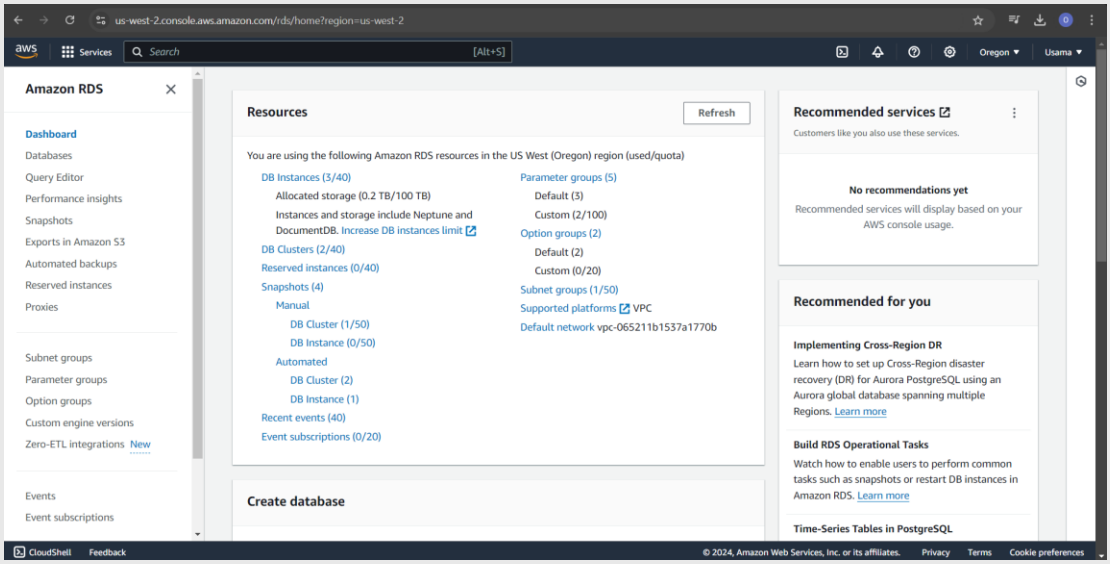
Introduction to Zero ETL

AWS's Zero ETL feature enables seamless data integration between Amazon Aurora MySQL and Amazon Redshift without traditional ETL configurations, streamlining data management.

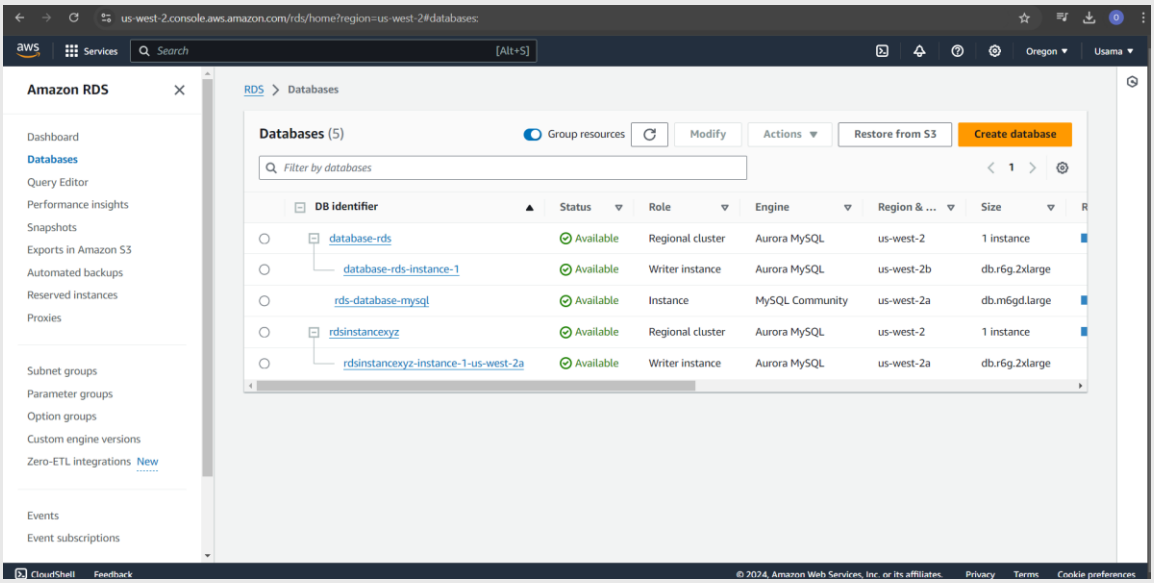
Setting Up Aurora MySQL

Create Aurora MySQL Instance

Go to the RDS console. (Make sure you have to select the US West (Oregon)us-west-2)

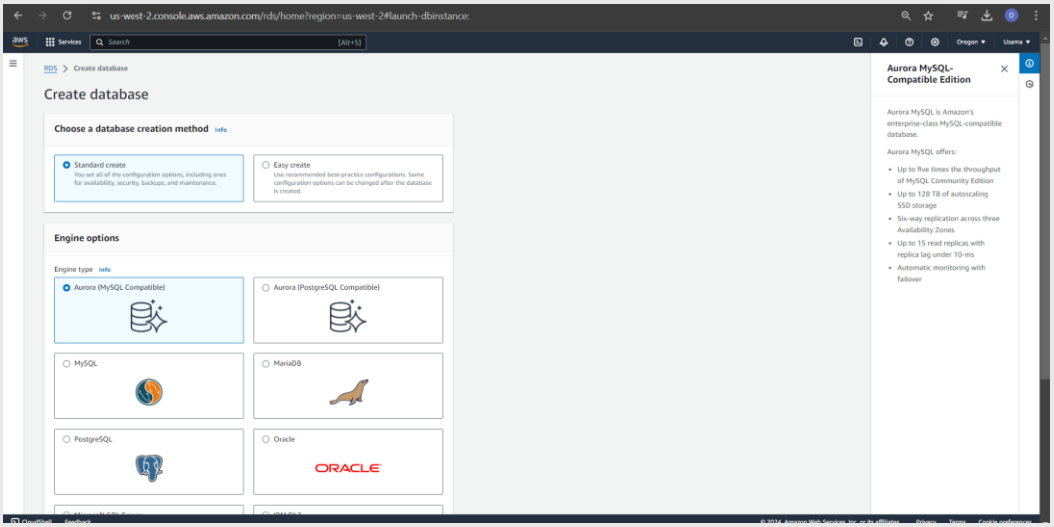


Click; “Database"



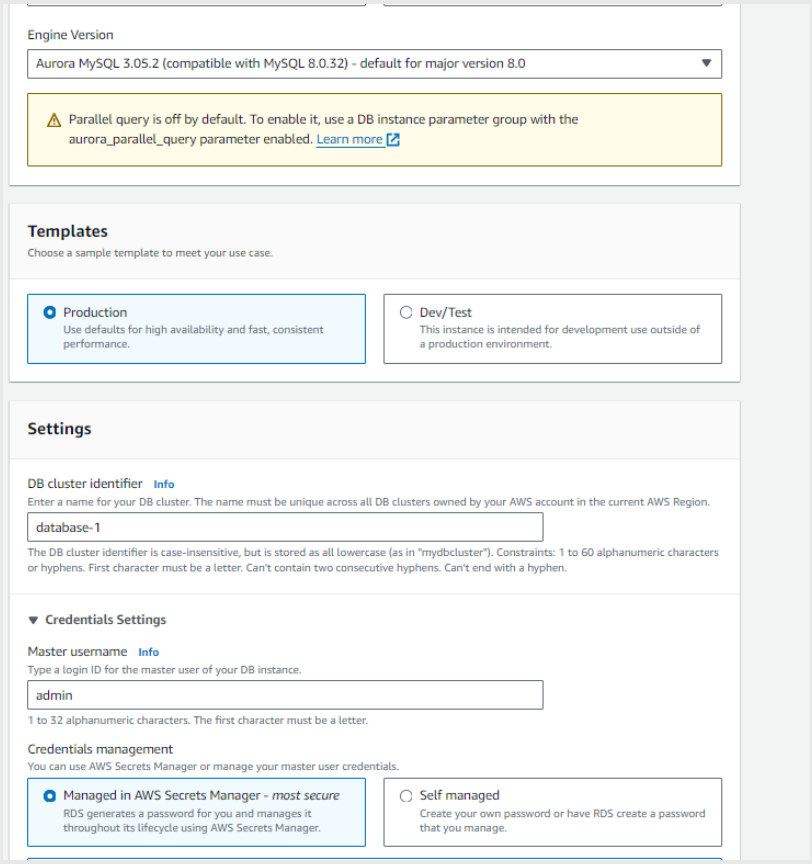
Click; Create Database

- Choose: Standard Create
- Choose: Engine option (Aurora (MySQL Compatible)

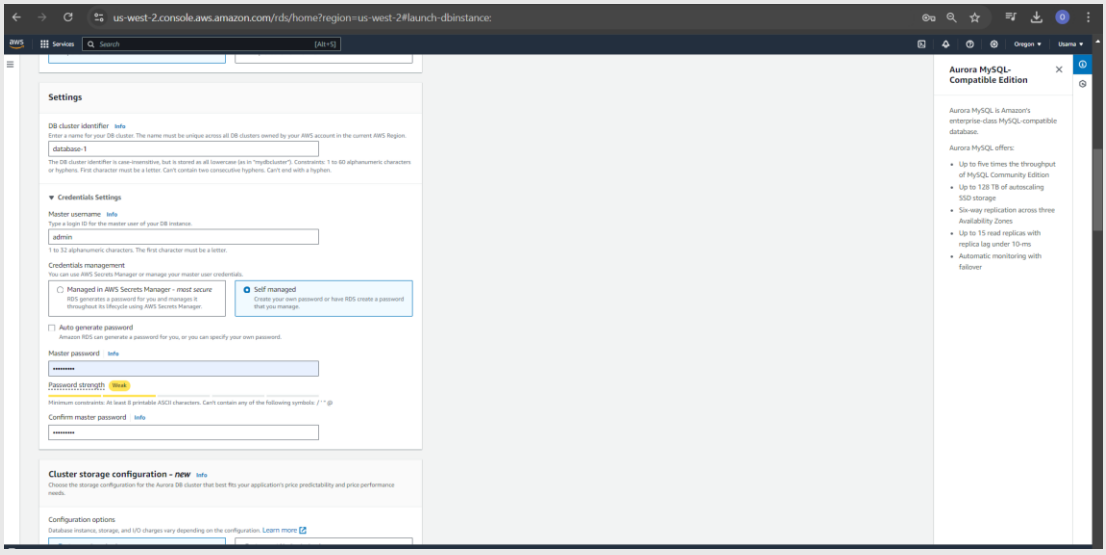


Choose Engine Version: Aurora MySQL 3.05.2 (compatible with MySQL 8.0.32) - default for major version 8.0

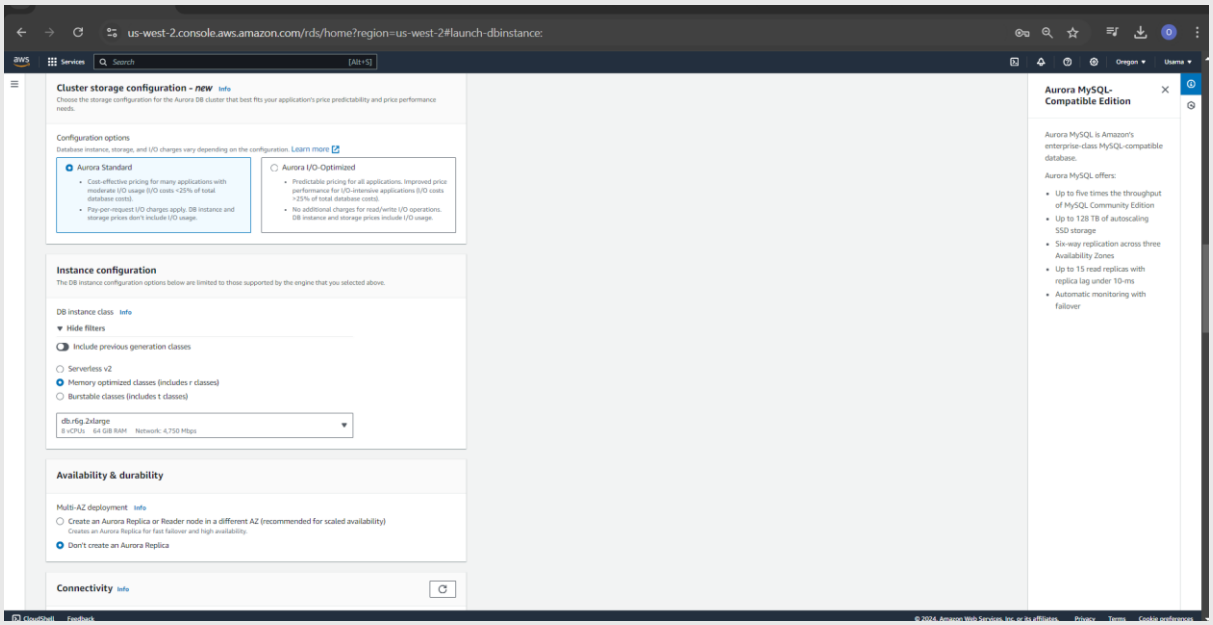
- Choose template, Production



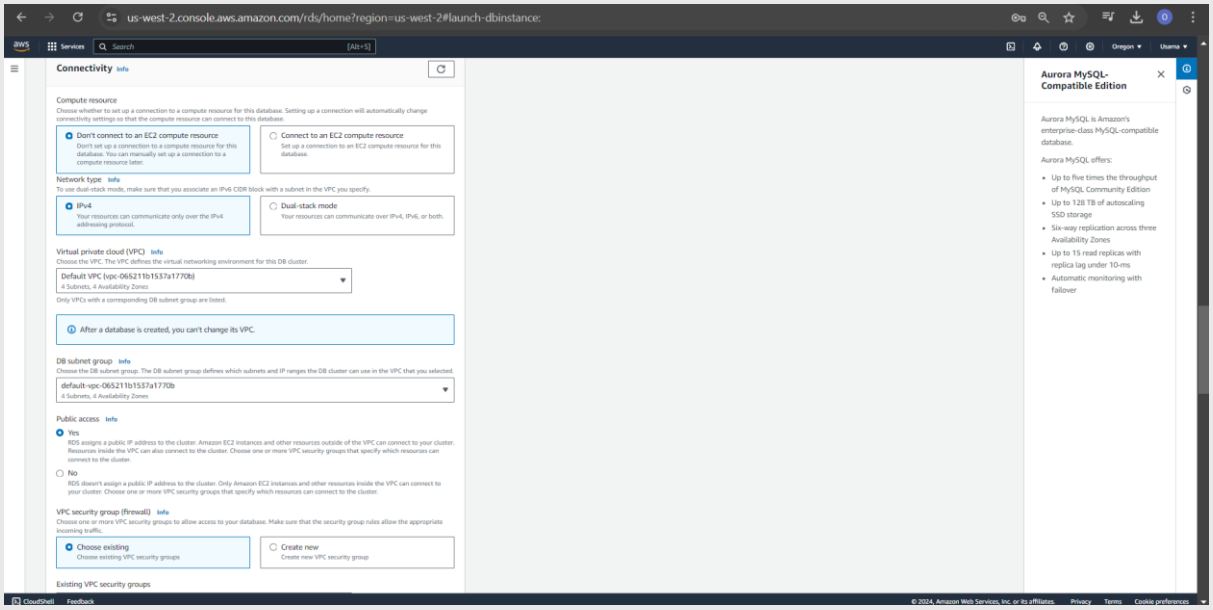
- Enter a name for your DB cluster.



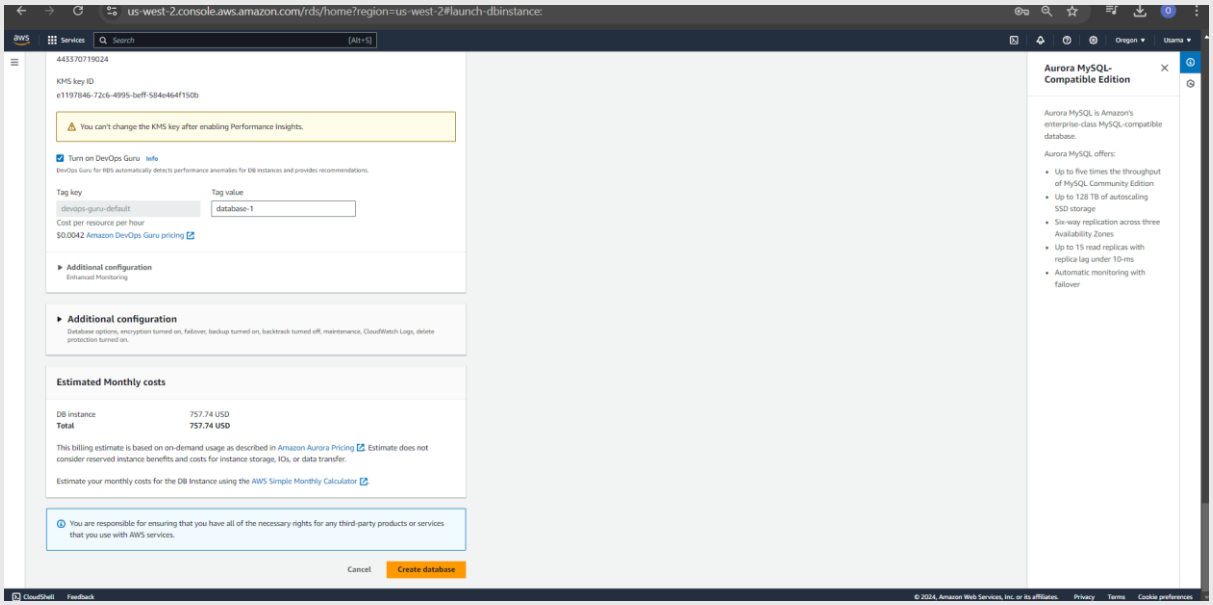
- In credentials management select self managed so you can create your own password.



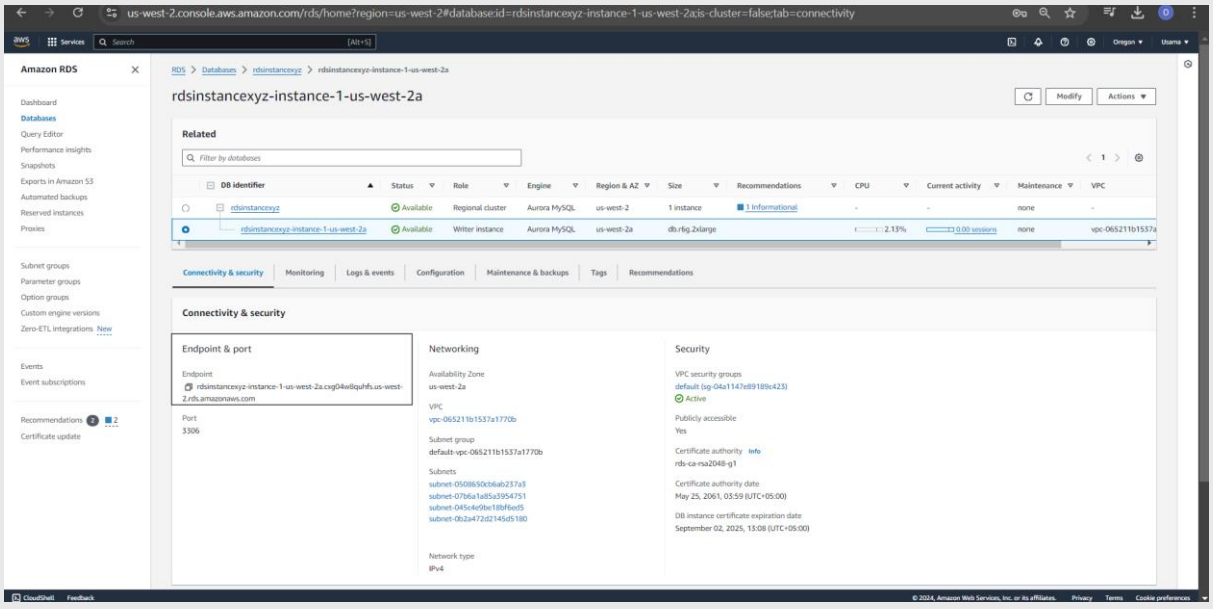
- Connectivity Set as by default



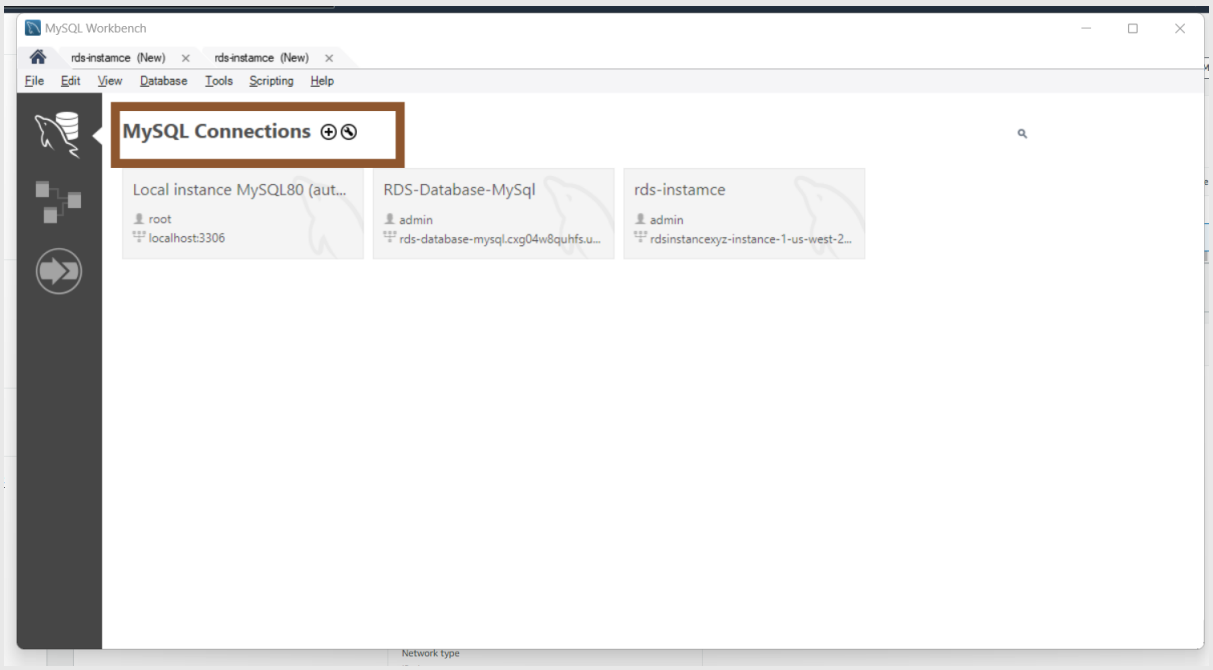
- Configuration options; By Default
- Instance configuration; By Default
- Availability & durability; Choose > Don't create an Aurora Replica
- Public access chooses; Yes
- Remaining setting are as default



- After Successfully created the database copy the Endpoint



- Open Mysql Workbench and click on plus icon

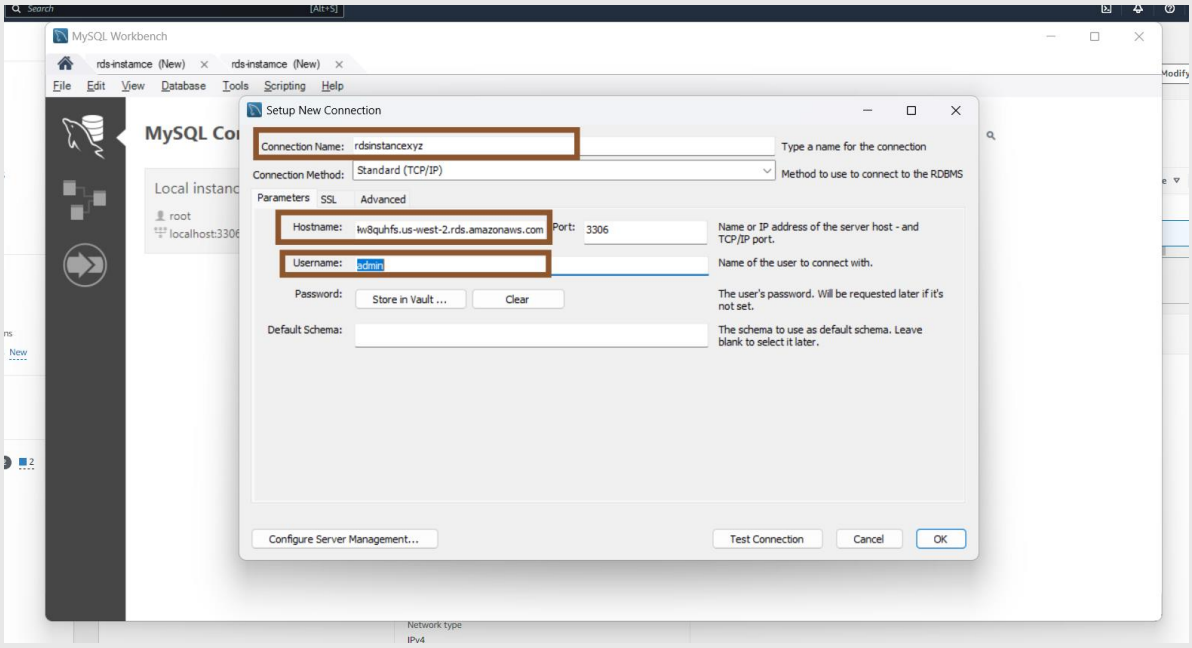


Enter Connection name which you have been created in the RDS.

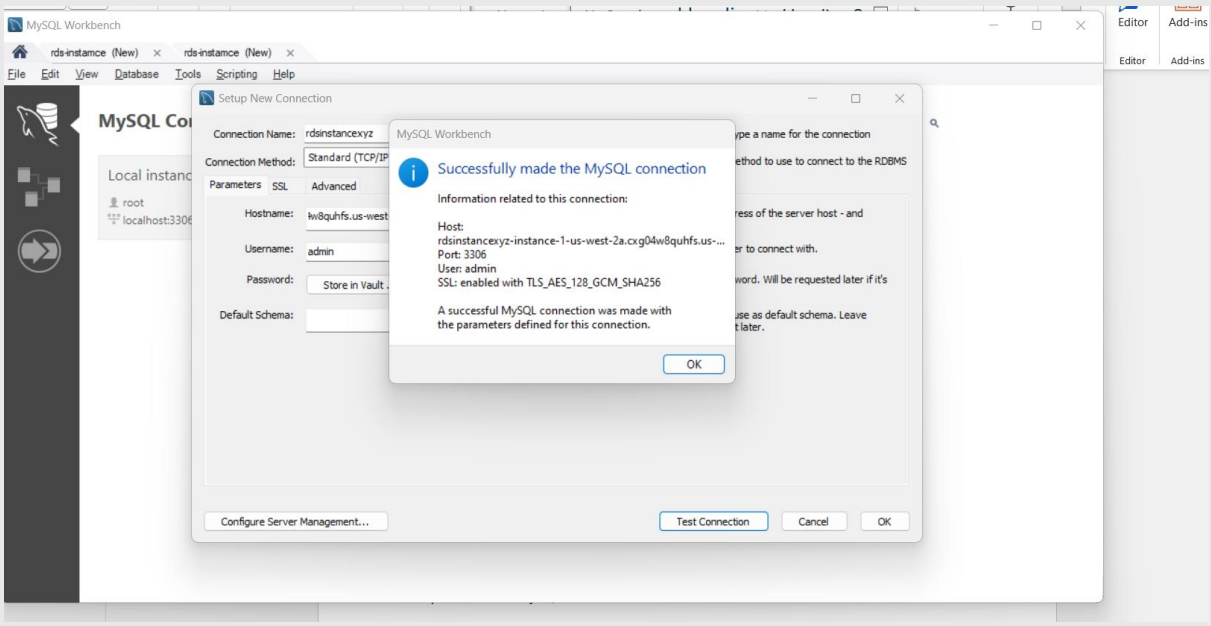
In hostname field enter the RDS endpoint

User name: Add RDS user name and password

Click on test connection

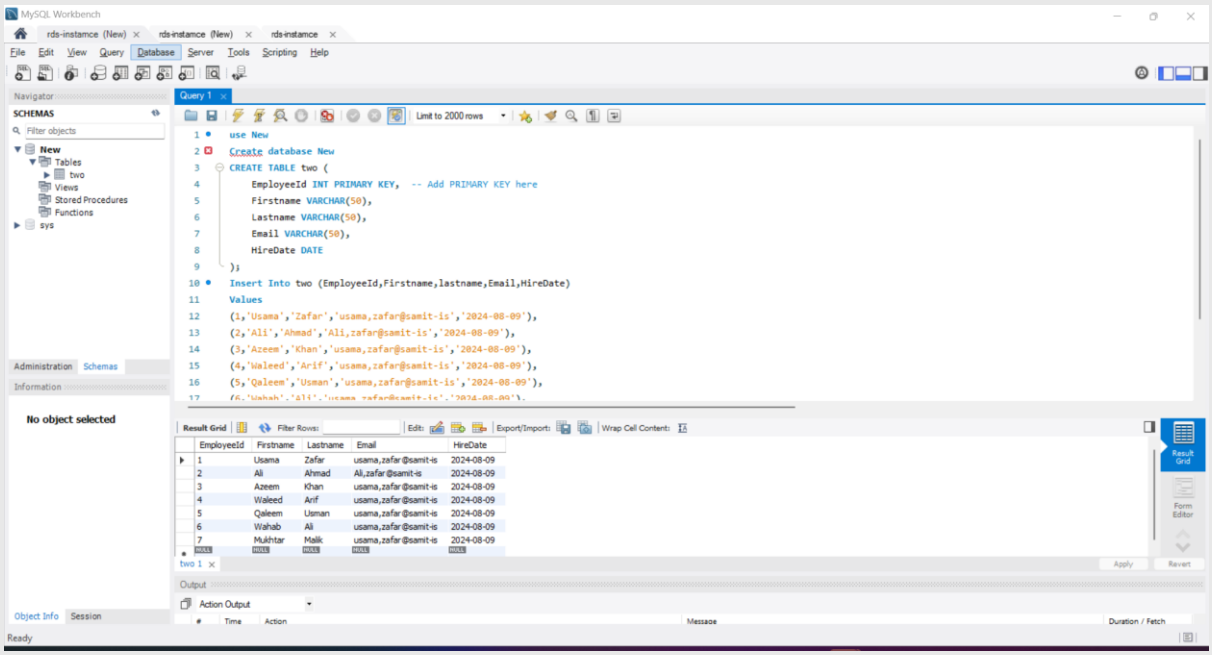


After clicking on test connection, it will show a pop up screen successfully made the MySQL connection



Create Database in MySql

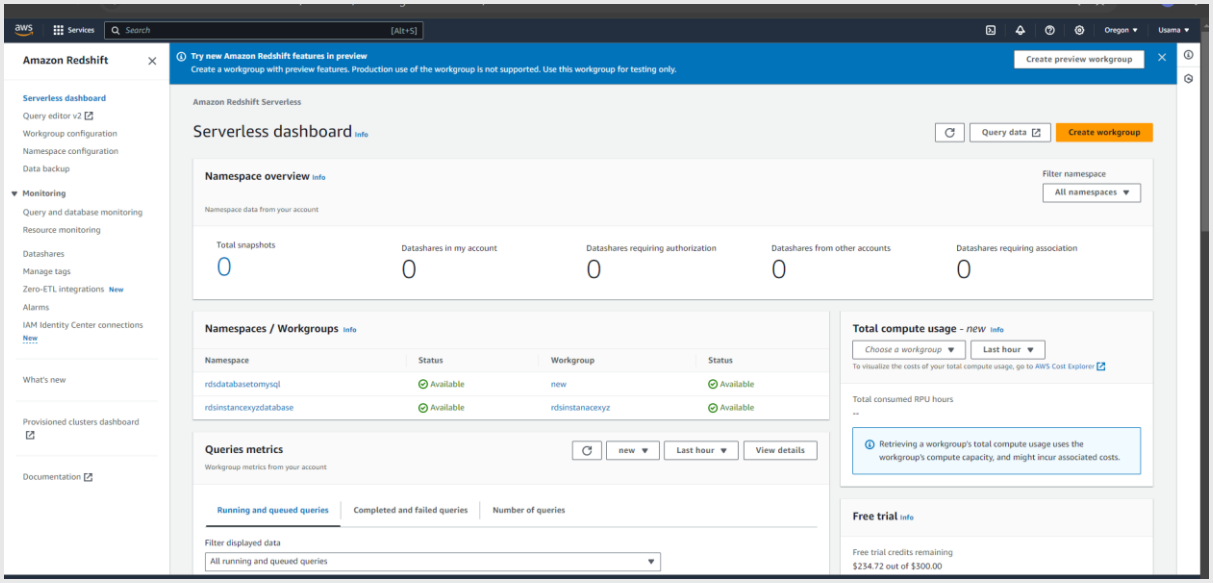
- Create Table
- Add data in table



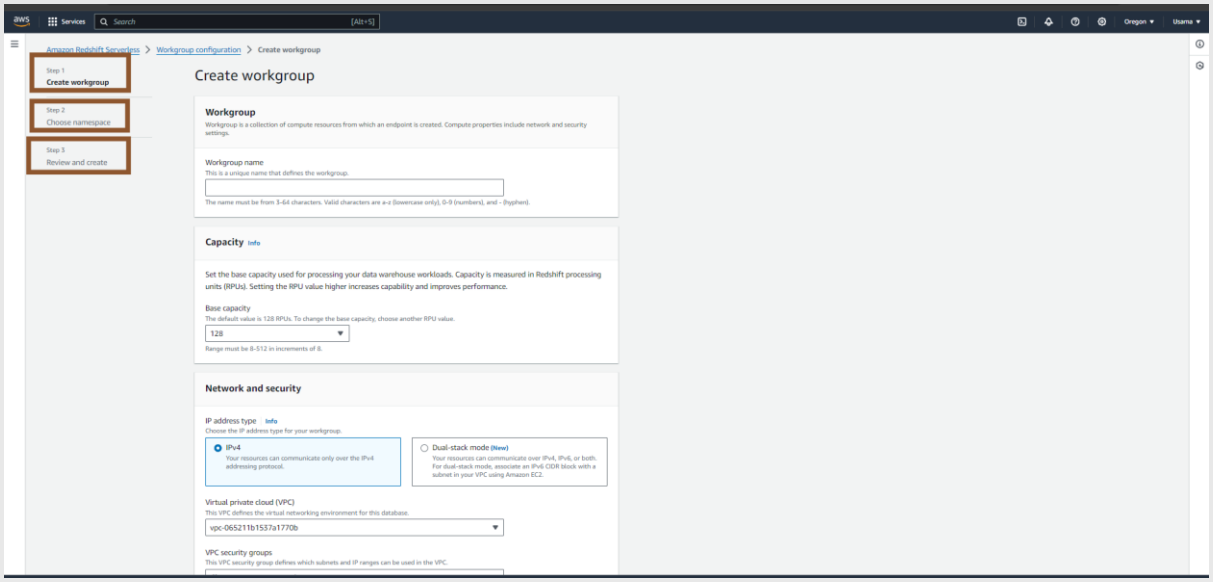
Setup Amazon Redshift.

Create a Workgroup.

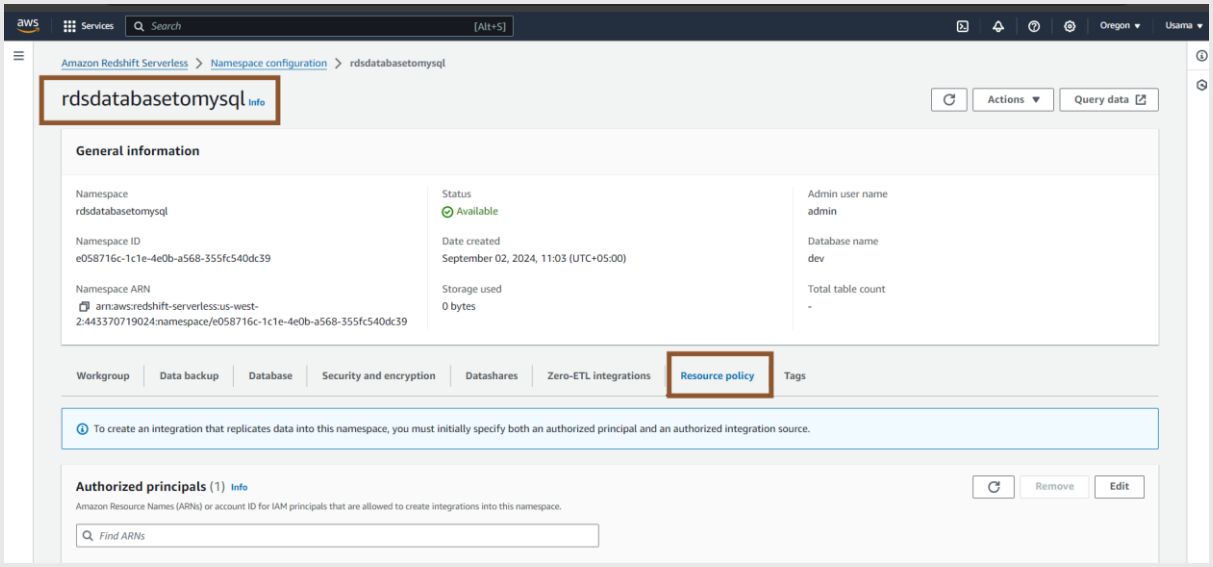
Go to the Amazon Redshift console.
Create a new workgroup.
Configure the workgroup with appropriate settings.
Create namespaces



After creating the workgroup this screen will appear

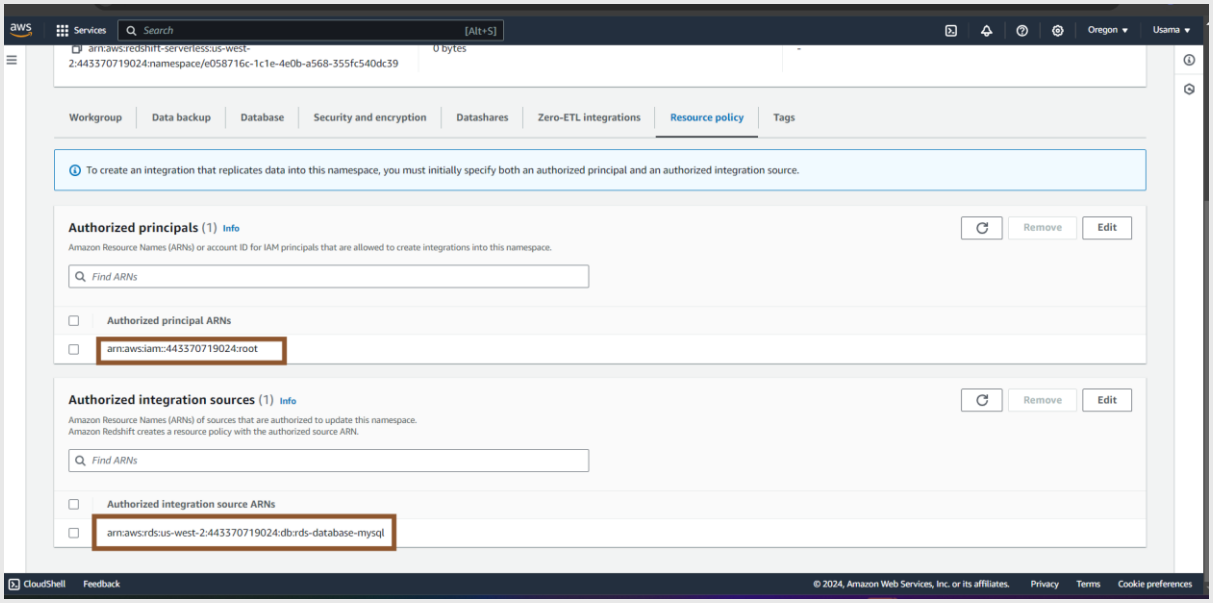


Click on Resource policy



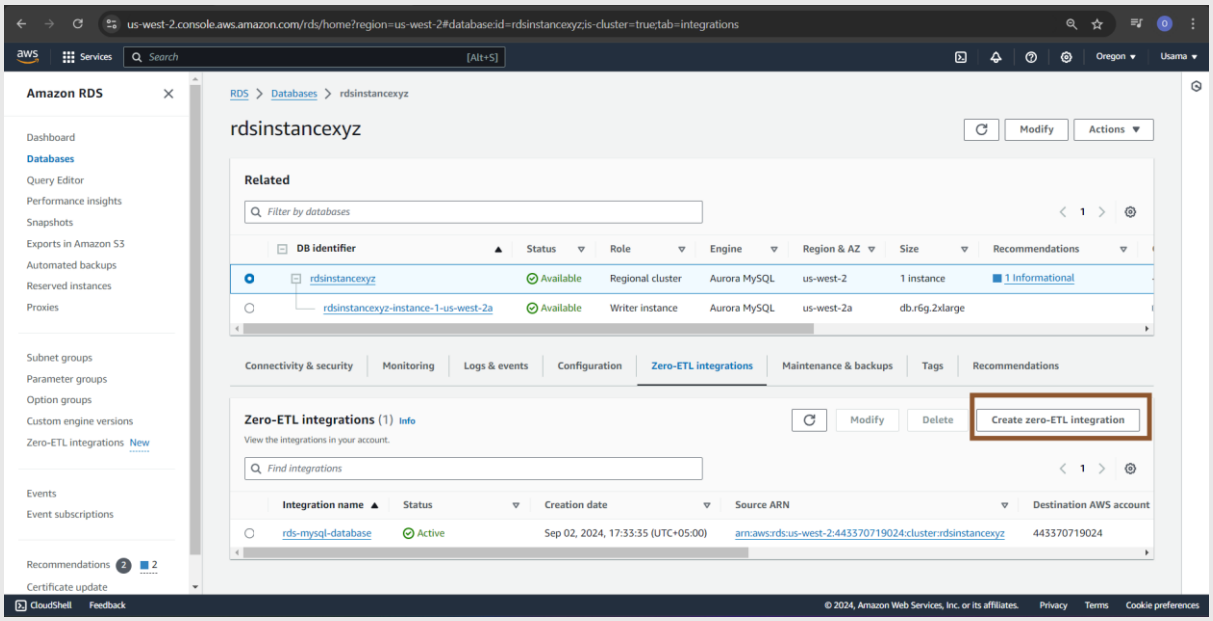
Add Authorized integration source ARNs (From RDS Amazon Resource Name (ARN))

Add Authorized principal ARNs

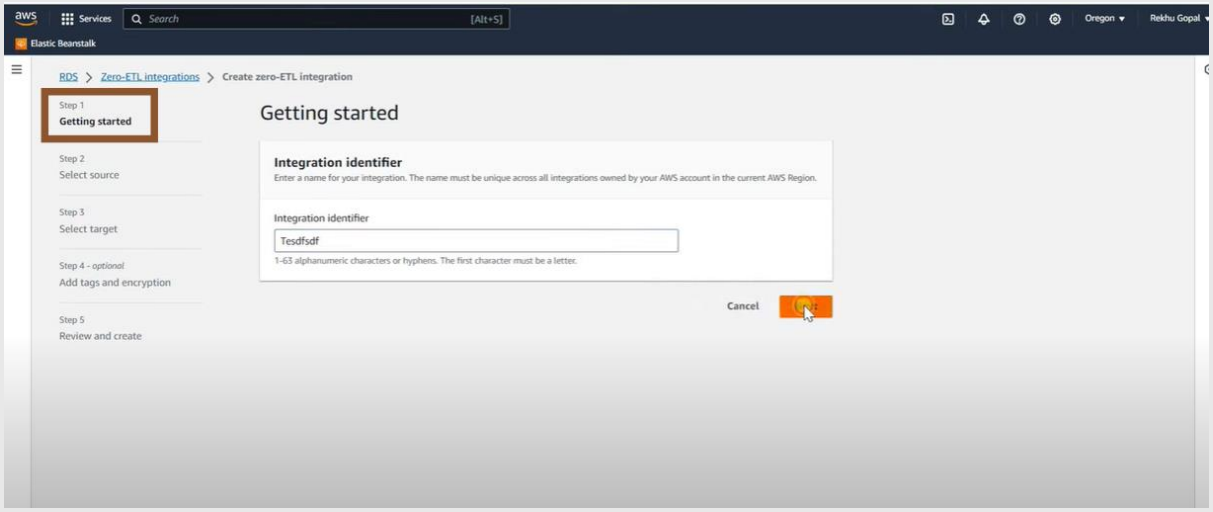


Enable Zero ETL Integration.

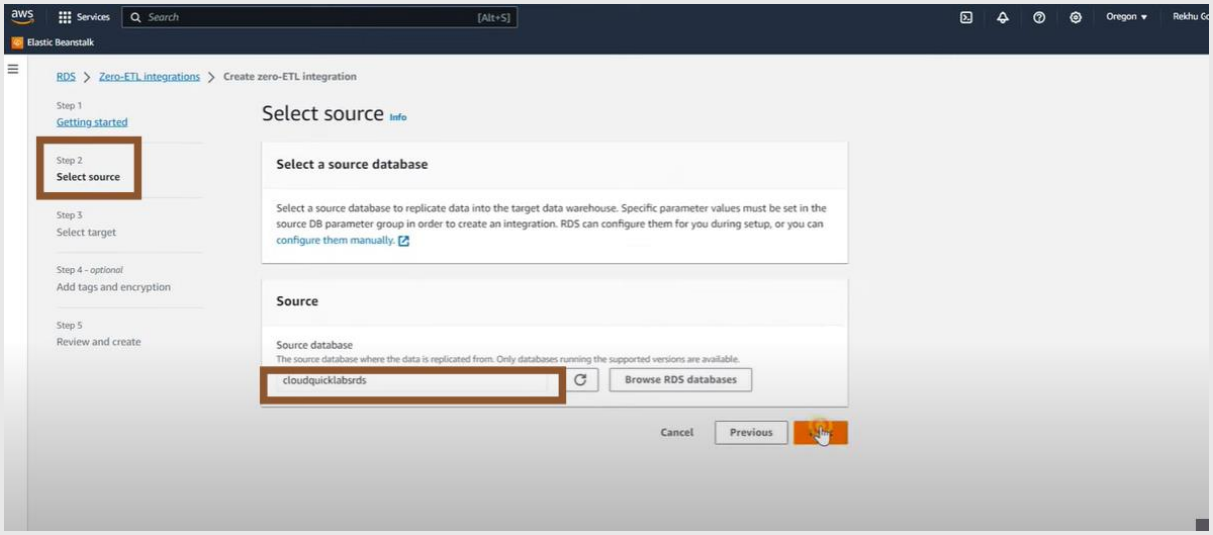
- Go to the ETL configuration page.
- Click on; “Create Zero ETL Integration"



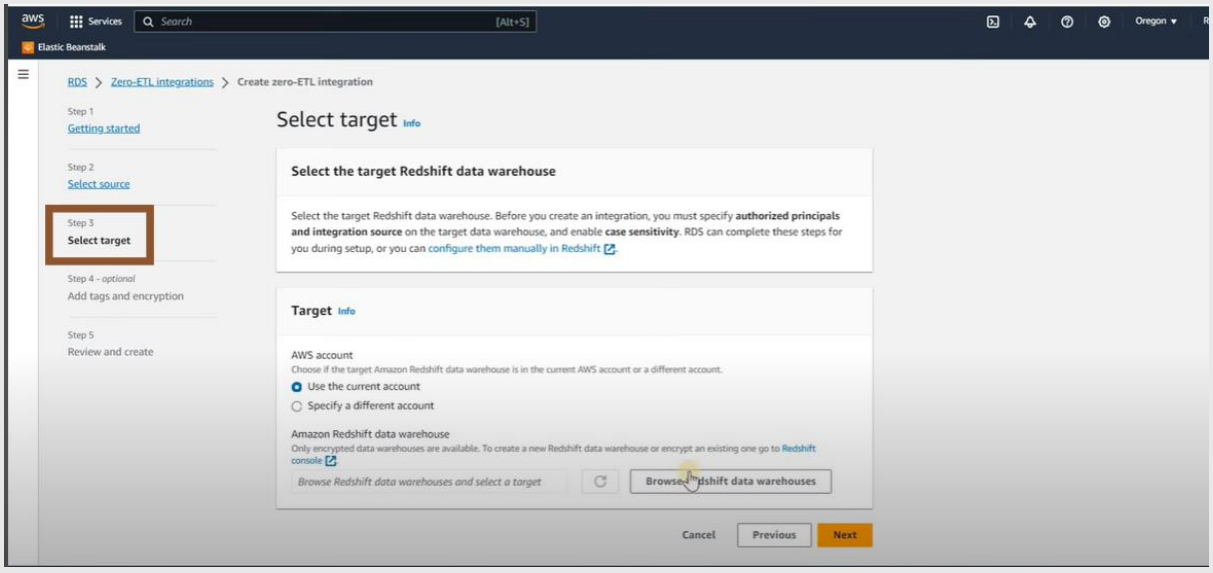
Getting Started: Add Integration identifier name



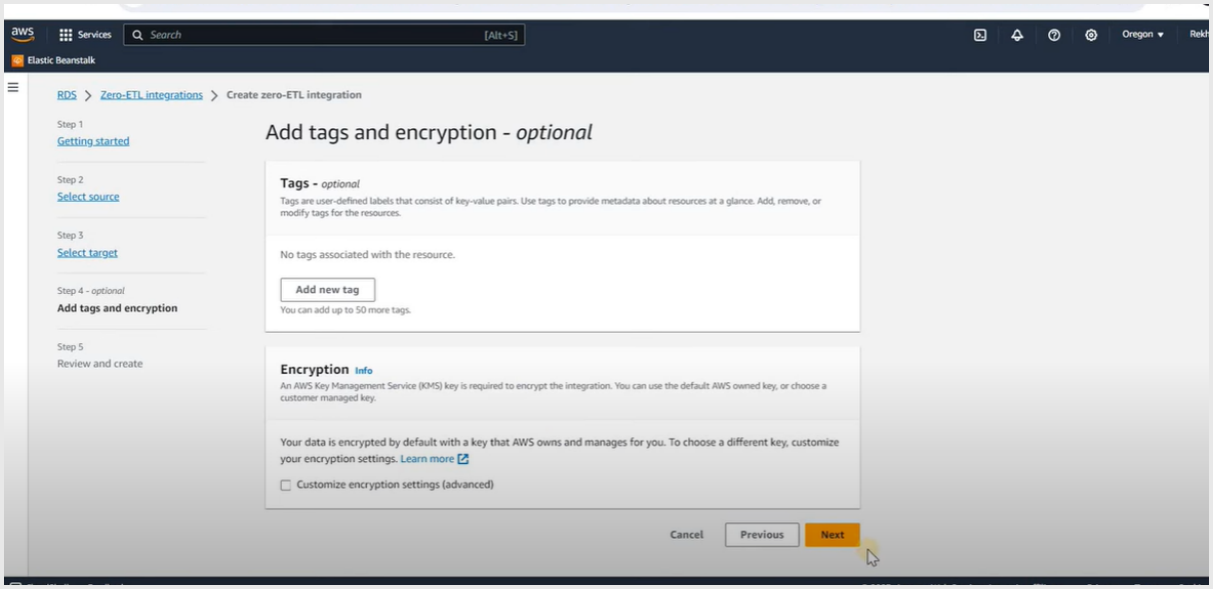
Select Source: Brows RDS source database



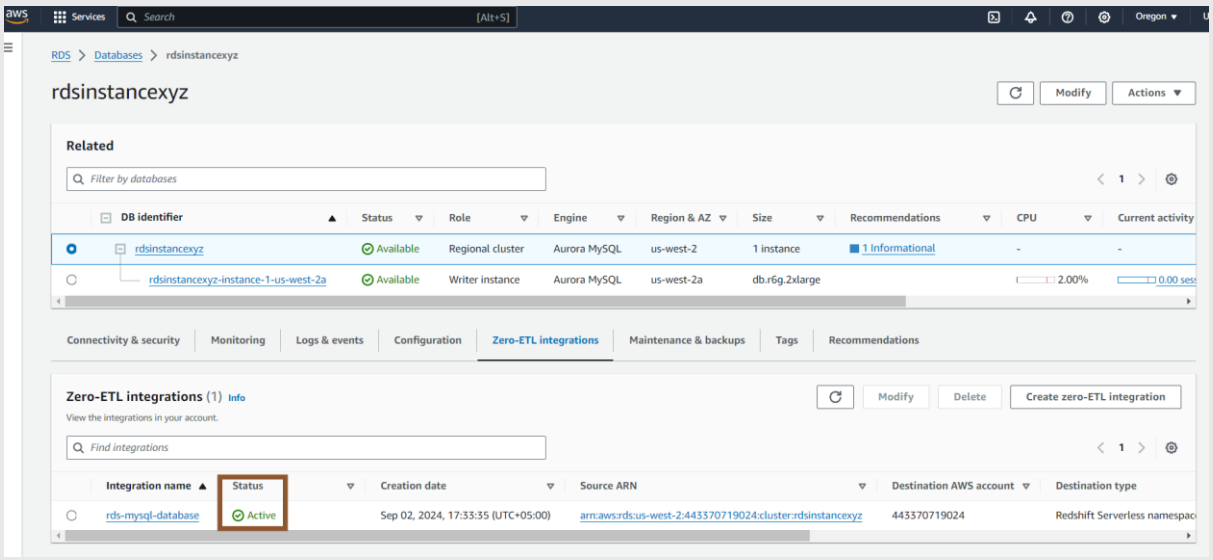
Select Target: Add targeted Redshift data source



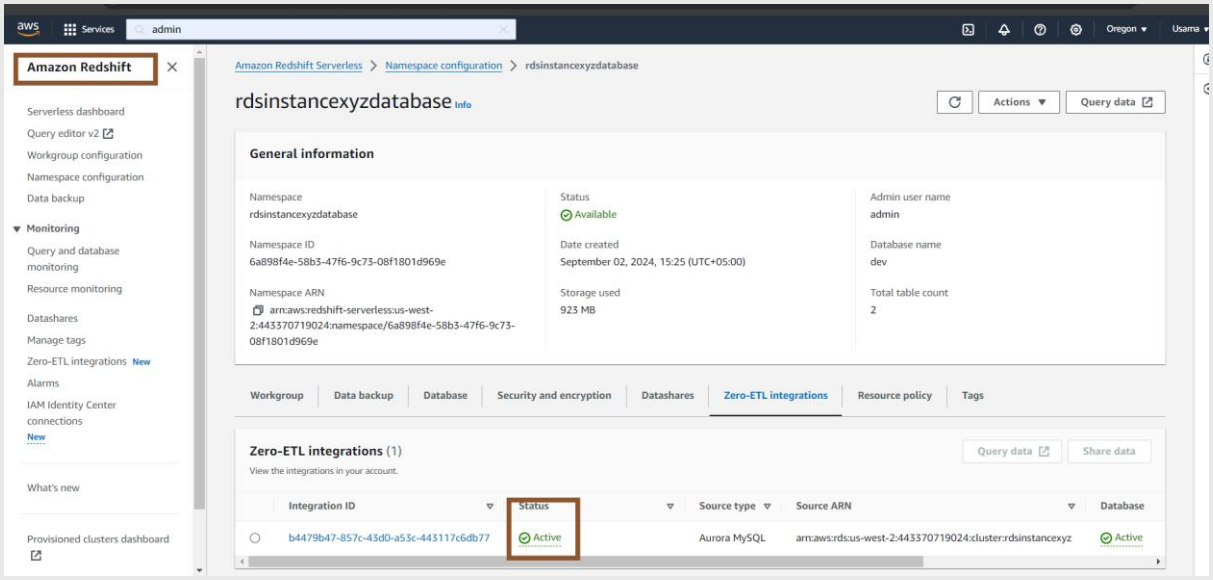
Add tags and encryption (optional)



After successfully created it will show the active status
Confirm the configuration status changes to; “Available"; before proceeding.

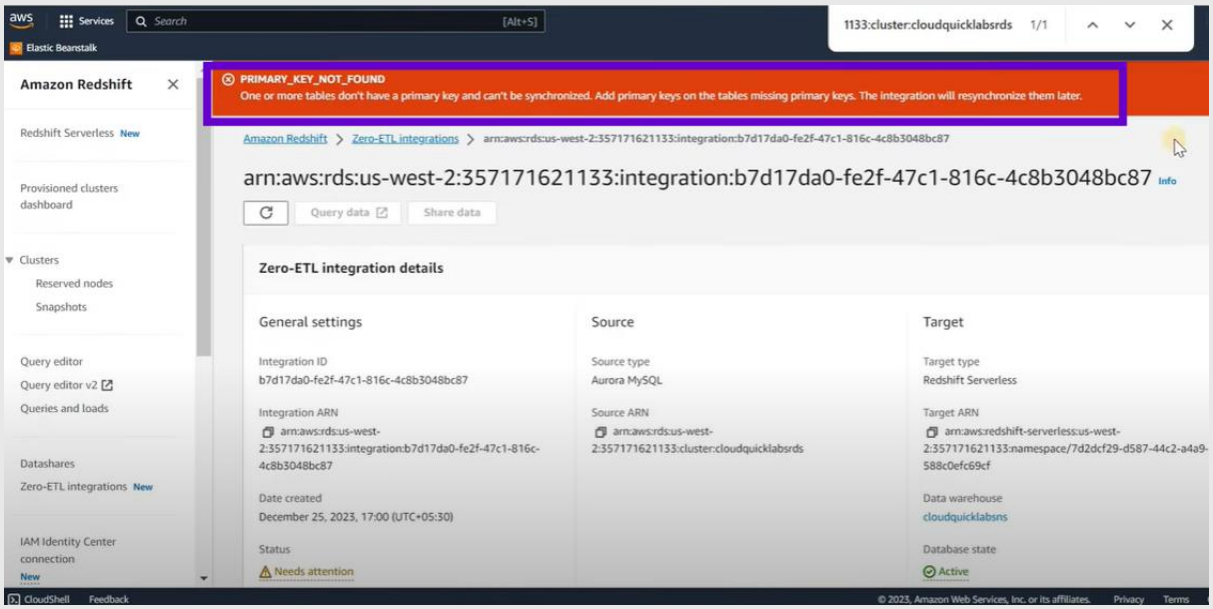


So, the integration we have created in the RDS it will appear in the Redshift.



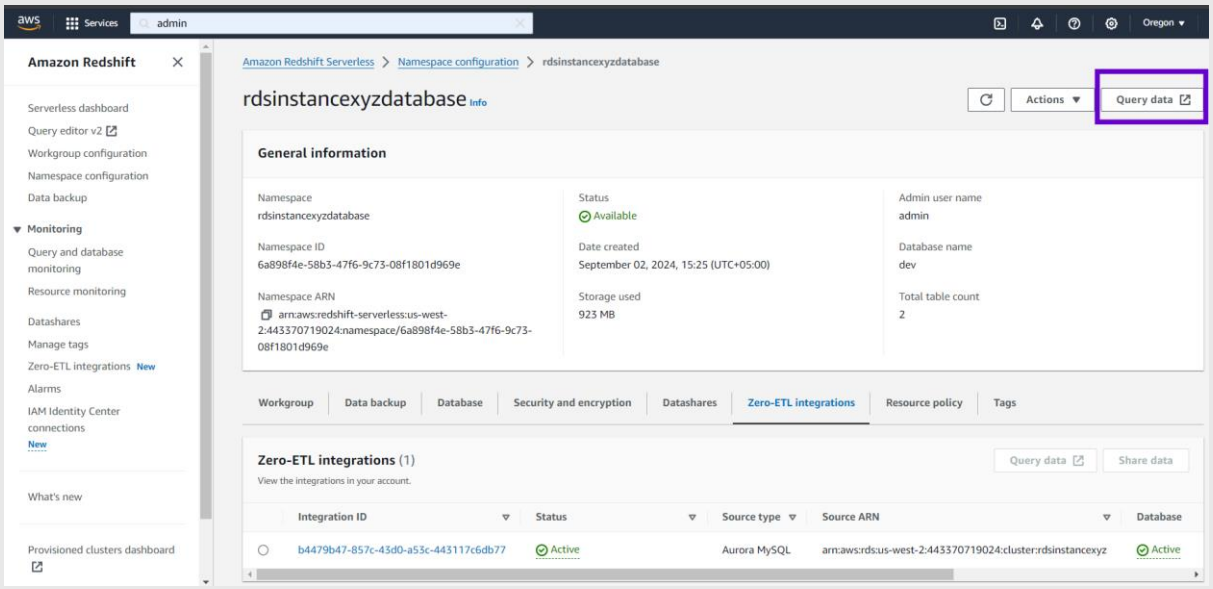
Handle Primary Key Requirement.

When creating tables, ensure each table has a primary key to avoid errors.



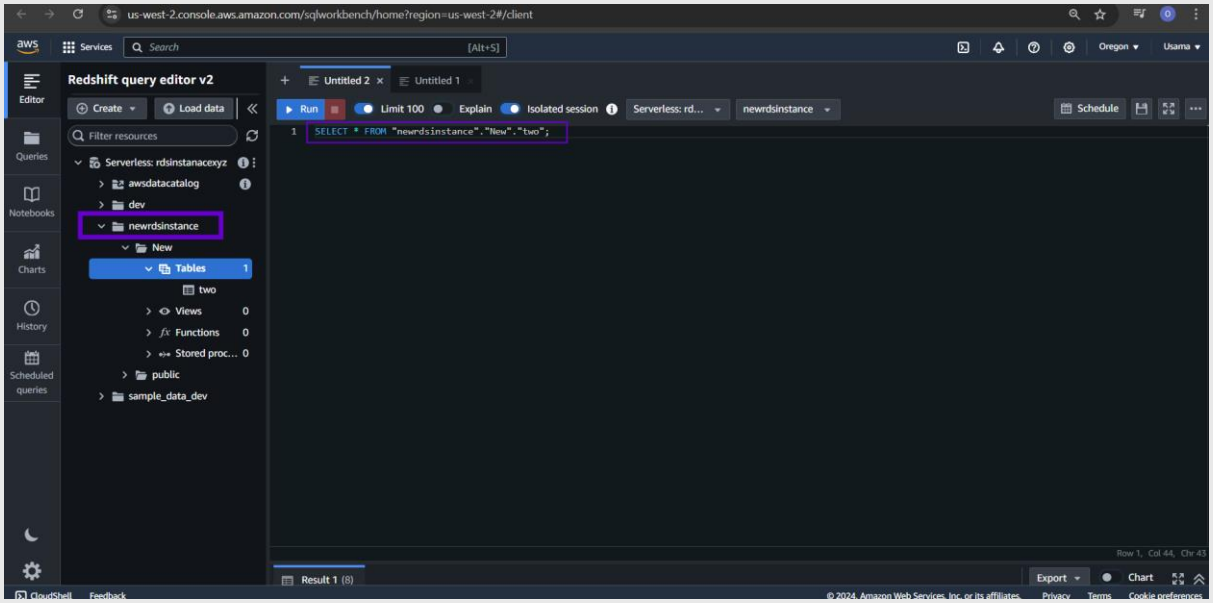
Query Editor

When you click on query data it will appear on next tab.

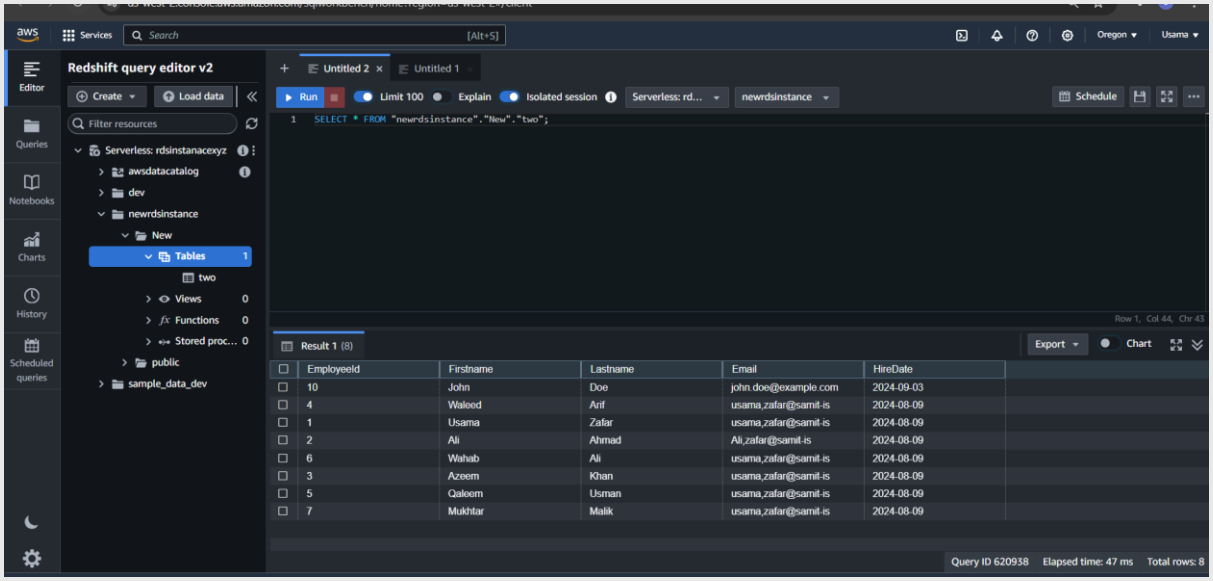


Show Data base in Query Editor:

In the left panel, the database is displayed. Click on the dropdown arrow next to the database, and the tables created in MySQL Workbench will appear.



To view the table run query in RDS query editor



Final Verification.

Monitor data synchronization and ensure it reflects in real-time or near real-time.