

Module 7: Redshift Assignment

Assignment Submitted By:-Hitesh Chauhan

Course Offered: -Advanced Cloud Computing and Devops

Assignment By: -Intellipaat

Trainer: -Puneet Gavri

Date Of Submission: -08/11/2024

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:

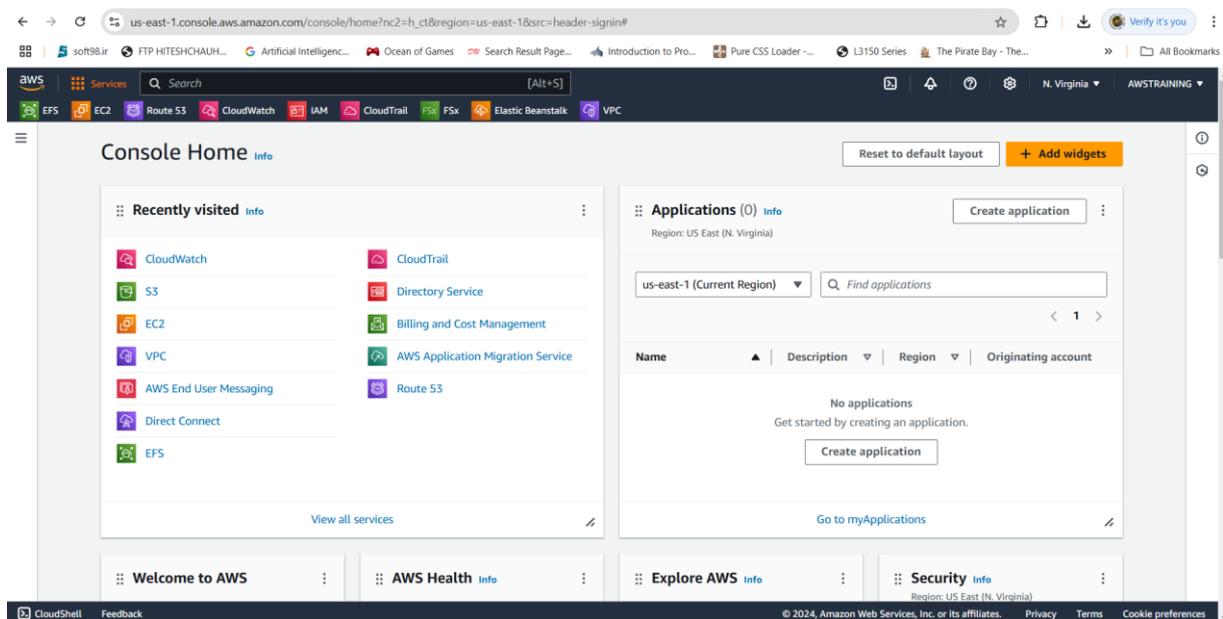
1. Create a Redshift data warehouse.

2. Using the query editor:

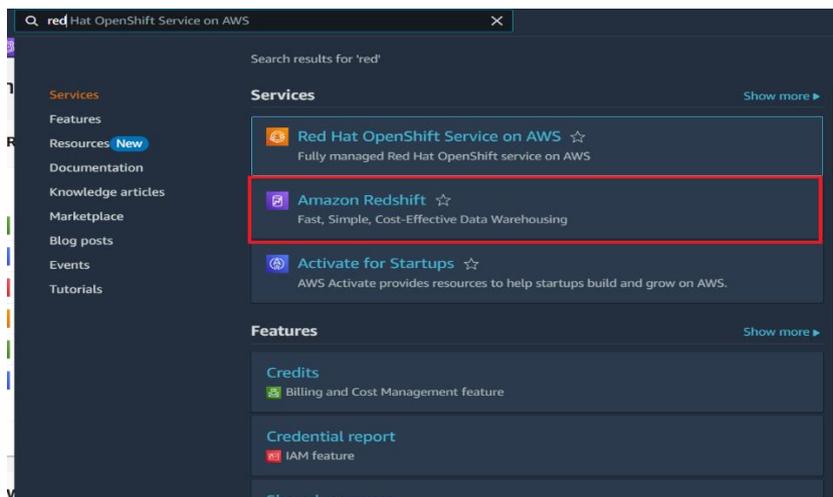
a. Load some data

b. Query the data

ANSWER:
Login to AWS Management Console: -

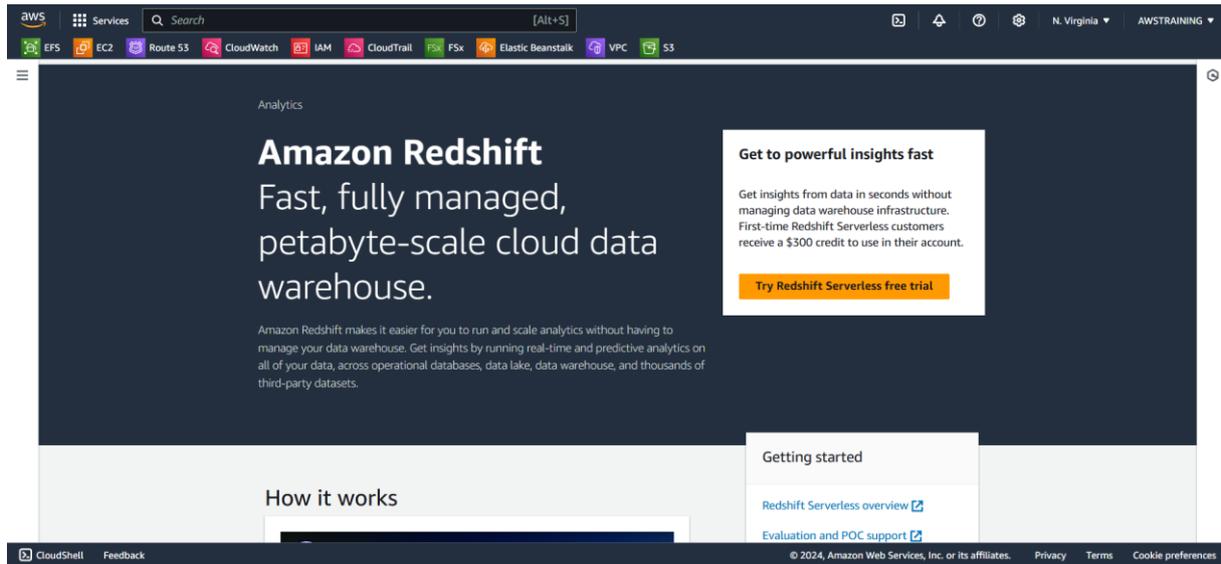


Then Search Amazon Redshift.

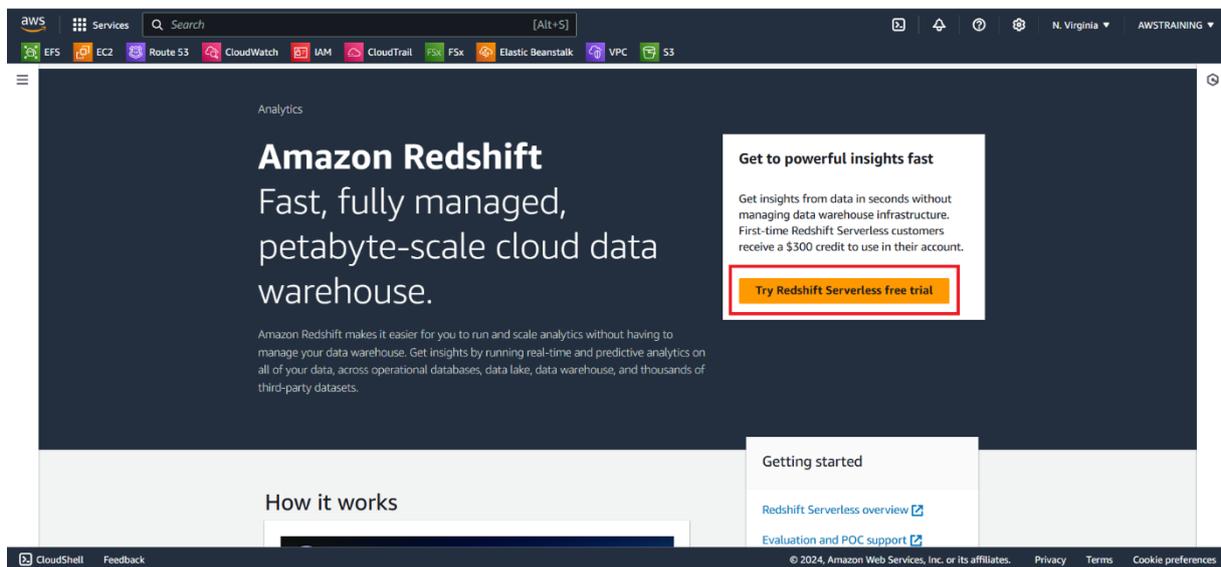


After Click the Amazon Redshift You will see like this screen

Note: Amazon Redshift is not a free service but Redshift gives Trial version for use.



Click Try Redshift Serverless free Trial.



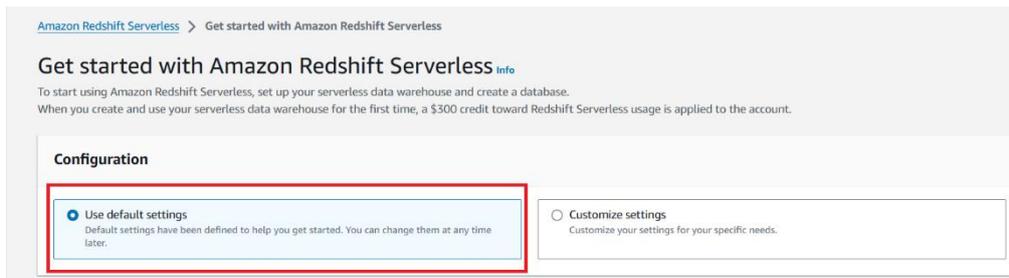
After Click the Redshift serverless free trial version you will see the configuration option.

In configuration option there is two options.

1. Use Default Setting

2. Customize Setting.

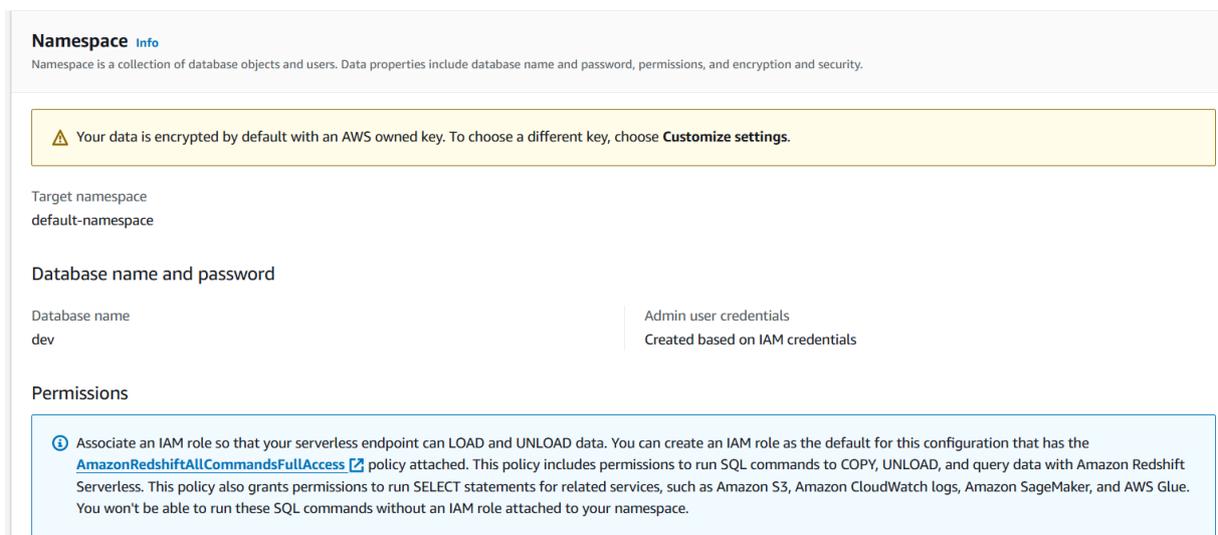
But Right now I choose the Option 1 Use default Setting. I don't want to go customize setting in redshift.



Next is namespace.

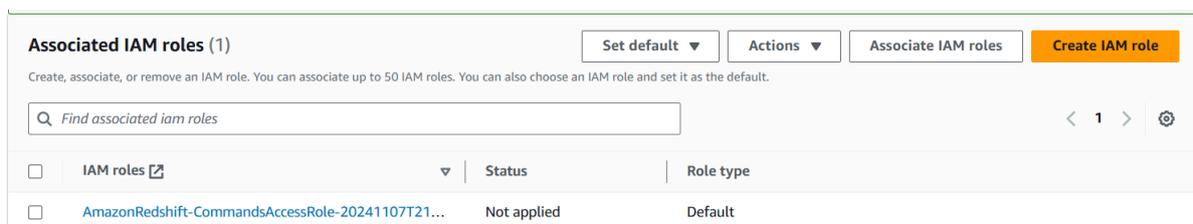
In this namespace target namespace will be **default-namespace**

In database name and password option in database name is **dev**



In this Associated IAM roles.

If incase there is no associate role to redshift so need to assign the IAM role.



In Encryption and security option will be default setting.

Encryption and security

AWS KMS encryption
AWS owned KMS key

Audit logging
Off

In Workgroup Setting,

Workgroup name Will be **default-workgroup**.

Capacity will be no changes.

In Network and security Settings

Virtual private cloud(VPC)

[vpc-0ca4bd13727b758cb](#)

VPC Security group

[sg-0087d67d5ce0fb457](#)

Inbound rule

The screenshot shows the AWS IAM console page for the security group 'sg-0087d67d5ce0fb457 - default'. The 'Inbound rules' tab is selected, showing one rule. The details section includes:

- Security group name: default
- Security group ID: sg-0087d67d5ce0fb457
- Description: default VPC security group
- VPC ID: vpc-0ca4bd13727b758cb
- Owner: 207567757353
- Inbound rules count: 1 Permission entry
- Outbound rules count: 1 Permission entry

The 'Inbound rules (1)' table contains the following entry:

Name	Security group rule...	IP version	Type	Protocol	Port range	Source
-	sgr-0bccd9db4ff799140	IPv4	All traffic	All	All	0.0.0.0/0

Outbound rule

The screenshot shows the AWS IAM console page for the security group 'sg-0087d67d5ce0fb457 - default'. The 'Outbound rules' tab is selected, showing one rule. The details section includes:

- Security group name: default
- Security group ID: sg-0087d67d5ce0fb457
- Description: default VPC security group
- VPC ID: vpc-0ca4bd13727b758cb
- Owner: 207567757353
- Inbound rules count: 1 Permission entry
- Outbound rules count: 1 Permission entry

The 'Outbound rules (1)' table contains the following entry:

Name	Security group rule...	IP version	Type	Protocol	Port range	Destination
-	sgr-03c2e534dd6539d...	IPv4	All traffic	All	All	0.0.0.0/0

In Workgroup You need assign the workgroup name so in my case this is **default-workgroup**

Workgroup Info
Workgroup is a collection of compute resources from which an endpoint is created. Compute properties include network and security settings.

Workgroup name
default-workgroup

Capacity Info
The capacity is measured in Redshift processing units (RPU).

Base capacity
128

Network and security

Virtual private cloud (VPC)
vpc-0ca4bd13727b758cb [↗](#)

VPC security group
sg-0087d67d5ce0fb457 [↗](#)

Subnet
subnet-0d828a638aec31575,
subnet-09c8bc6fedafb2bce,
subnet-0c3a227a6d896e22e,
subnet-07500936c65530e04,
subnet-0da62f71a2c23d8a8,
subnet-084eae892db4de22c,

Enhanced VPC routing
Off

Cancel **Save configuration**

Click Save Configuration

Create serverless ✕

It may take a few minutes to complete. After completing the setup, you can work with your data.
Setting up your Amazon Redshift Serverless. 0%



Ease of use with Amazon Redshift Serverless

Access and analyze data without the need to set up, tune, and manage Amazon Redshift clusters.

1 2 3 4

Continue

Create serverless



It may take a few minutes to complete. After completing the setup, you can work with your data.
Setting up your Amazon Redshift Serverless.

10%



Pay for use



Pay only when the data warehouse is in use.



Continue

Create serverless



It may take a few minutes to complete. After completing the setup, you can work with your data.
Setting up your Amazon Redshift Serverless.

15%



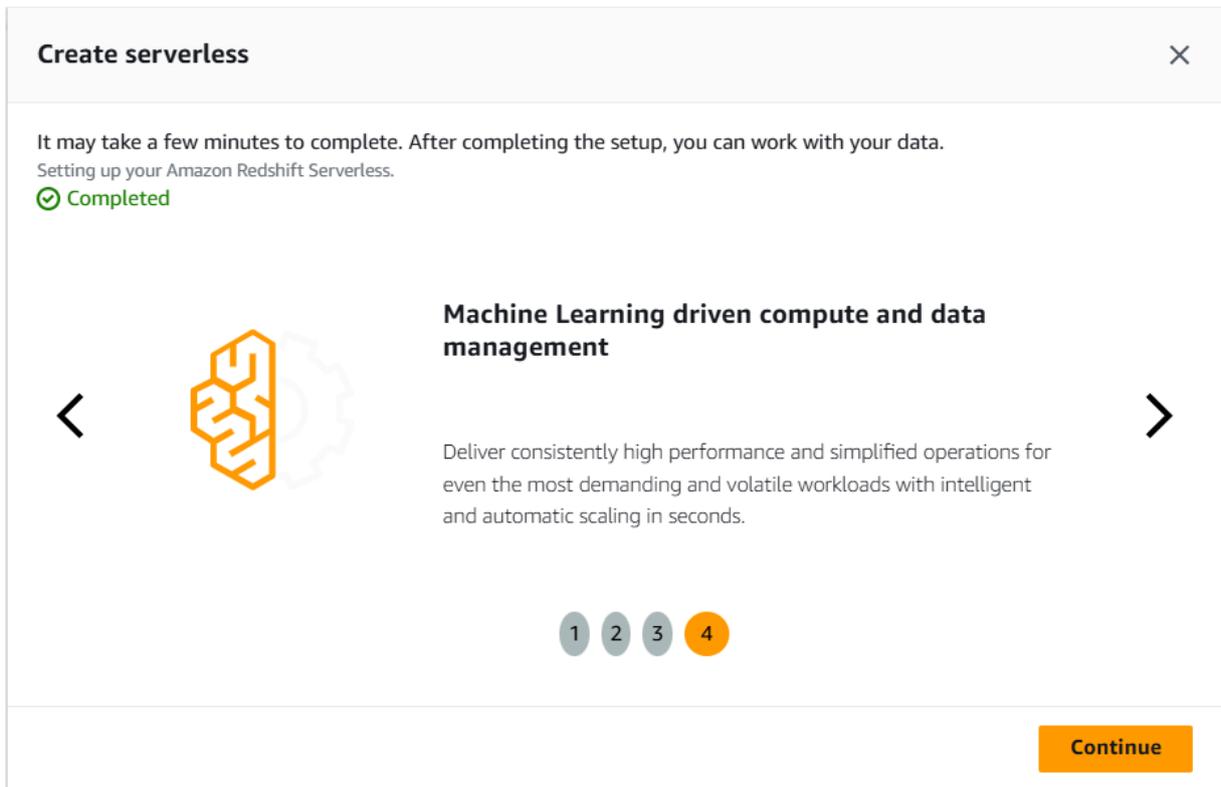
All Amazon Redshift functionality and performance



Use the Amazon Redshift best-in-class SQL capabilities, industry-leading performance, and lake house architecture to seamlessly query across a data warehouse, a data lake, and operational data sources.

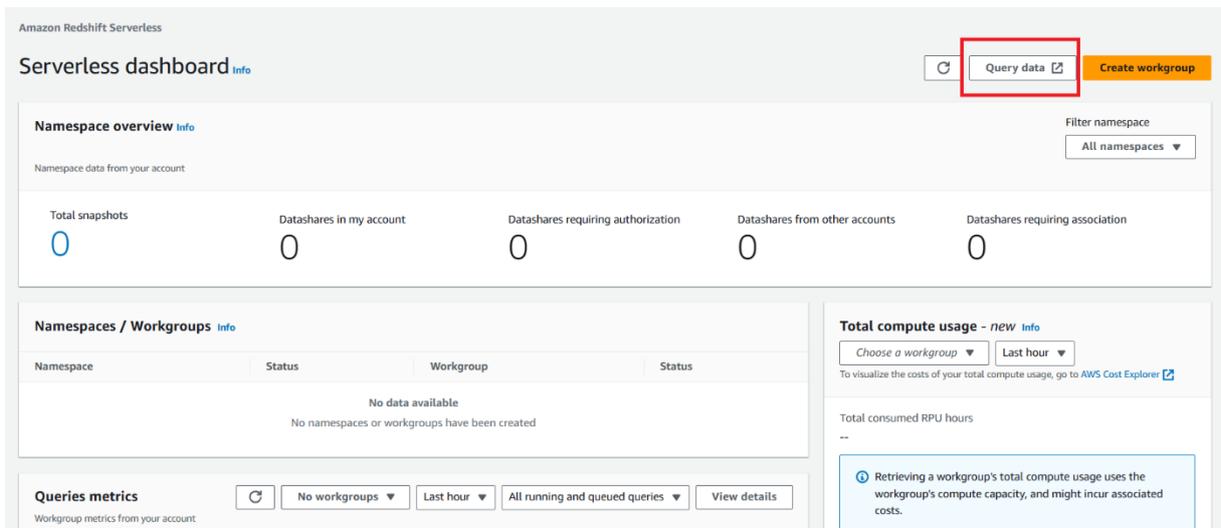


Continue

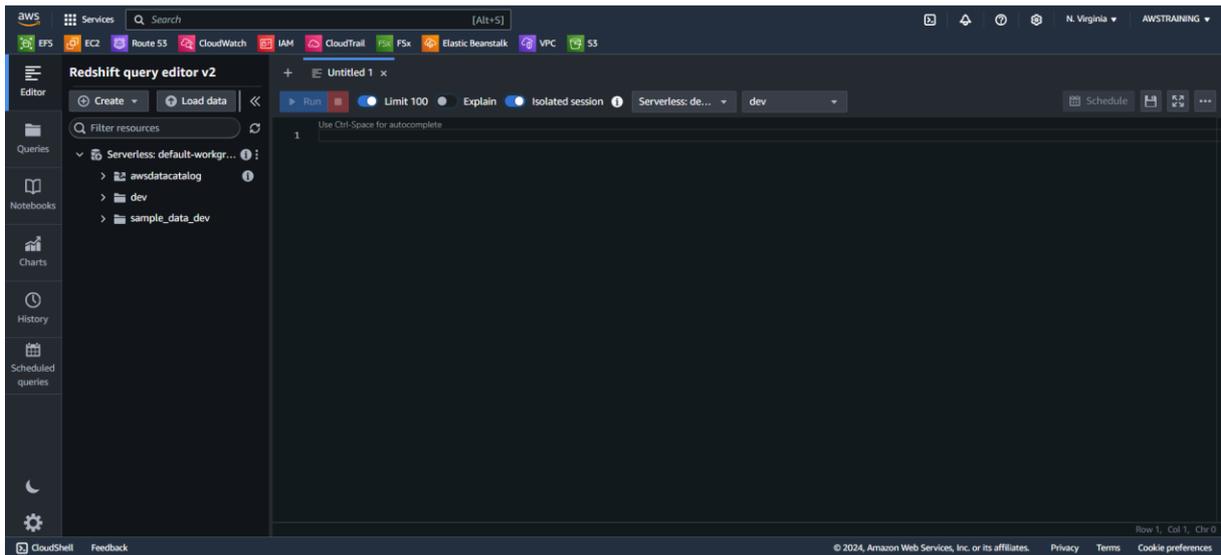


After Click the continue Button You will see like this screen.this is the serverless dashboard.

Select the query data



After click the query data you will see the query editor of redshift.



After Query editor you need to create the table

For example I want create the table of student so this is the query.

CREATE TABLE students

(

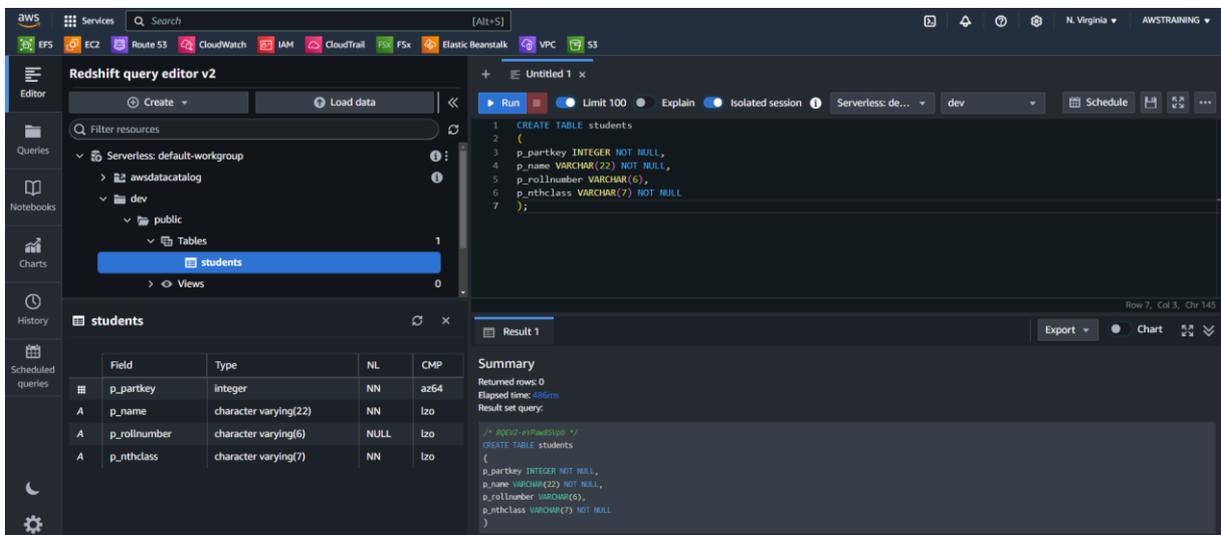
p_partkey INTEGER NOT NULL,

p_name VARCHAR(22) NOT NULL,

p_rollnumber VARCHAR(6),

p_nthclass VARCHAR(7) NOT NULL

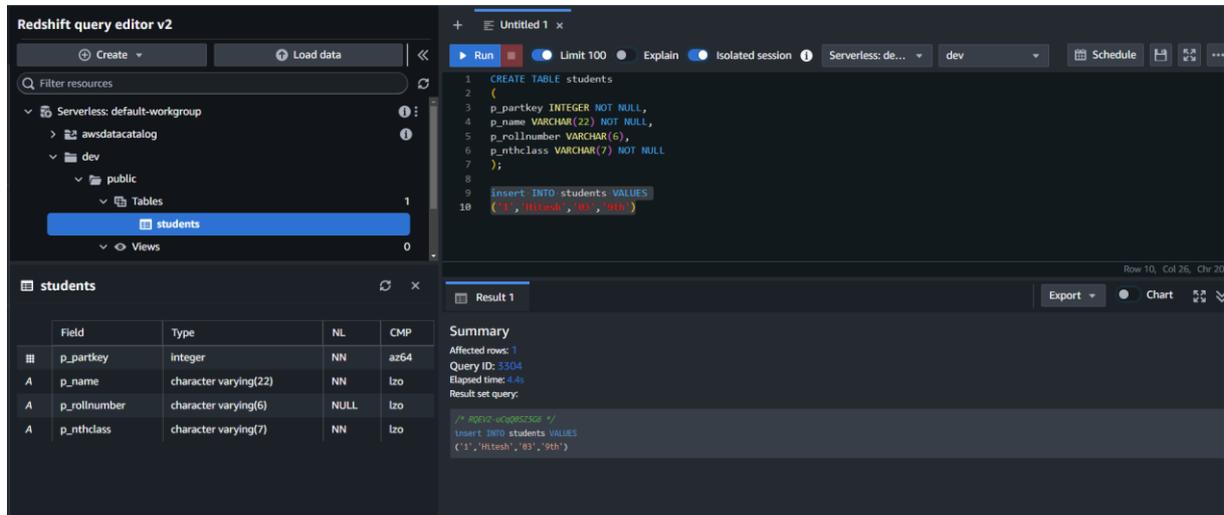
);



After Create the student table.this is the value of student we need to insert in table.

```
insert INTO students VALUES  
( '1', 'Hitesh', '03', '9th' )
```

Insert the data using the above query.

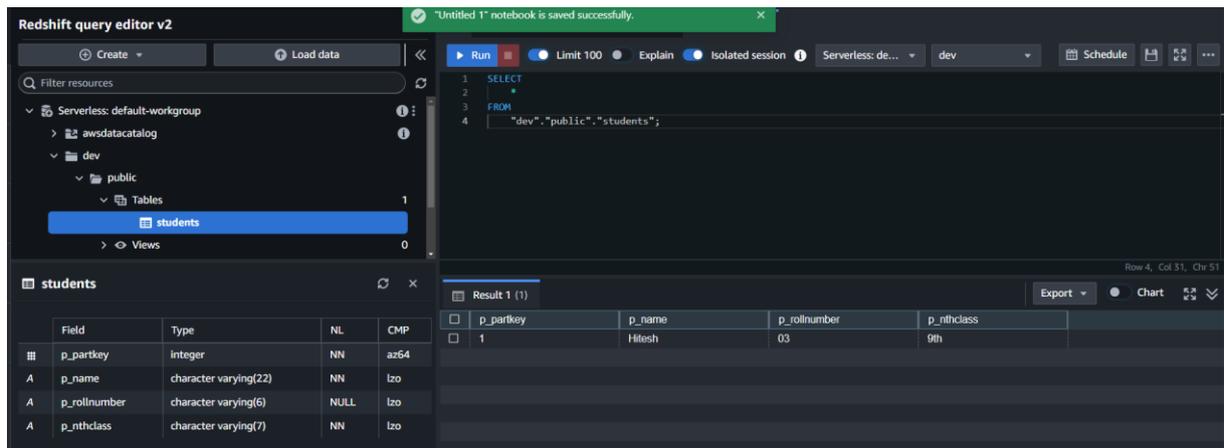


After created the inserted the value in student table just need to check

So this is the query

Select * from “dev”,”public”,”student”;

Insert the data using the above query.



Above is the query to query the data on the table.

That's complete the question.