MINI -PROJECT

Configuring and Connecting to Serverless MySQL Database with Amazon Aurora

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CONFIGURE AND CONNECT TO SERVERLESS MYSQL DATABASE WITH AMAZON AURORA SERVERLESS

Create an AWS Account: Sign up for AWS and access the AWS Management Console.

Navigate to Amazon RDS: Go to the Amazon RDS service in the AWS Management Console.

Launch a New DB Cluster: Click on "Create database" and select Amazon Aurora as the engine.

Choose Serverless: Select the serverless option for your Aurora cluster configuration.

Configure Cluster Settings: Set cluster identifier, master username, password, and other settings.

Set Capacity Settings: Define minimum and maximum Aurora Capacity Units (ACUs) for scaling.

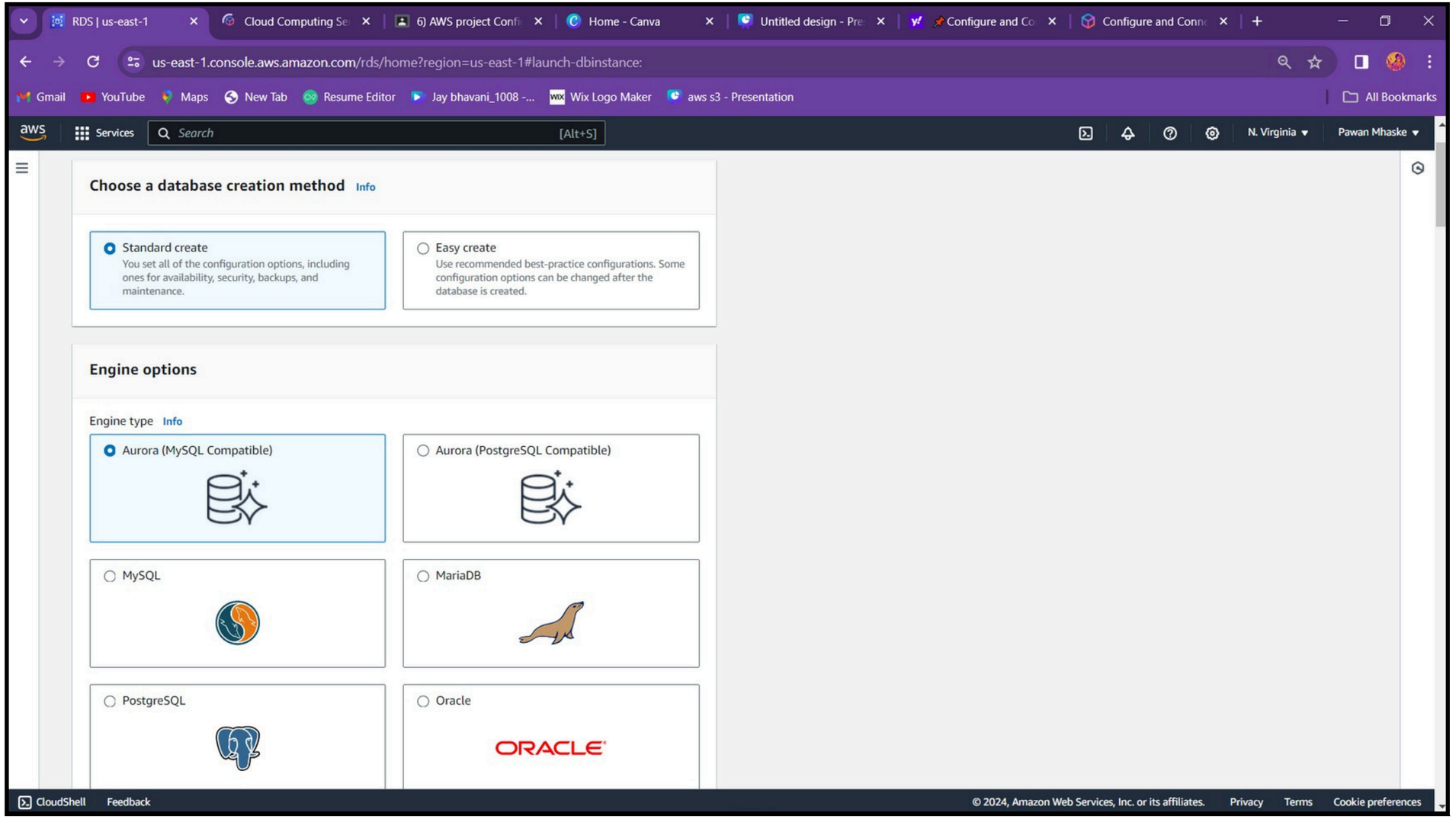
Configure Security: Define security group settings to control network access to your Aurora cluster.

Create the Cluster: Review your configuration and create the Aurora serverless DB cluster.

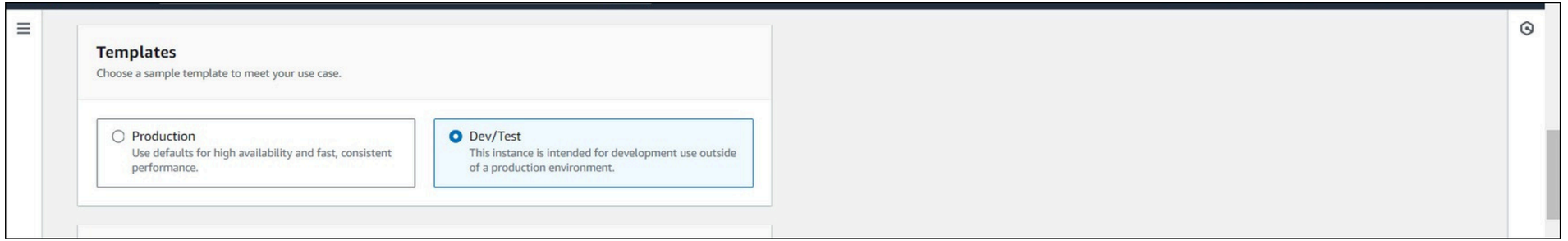
Connect to the Database: Retrieve the endpoint from the AWS Management Console and configure your applications to use it.

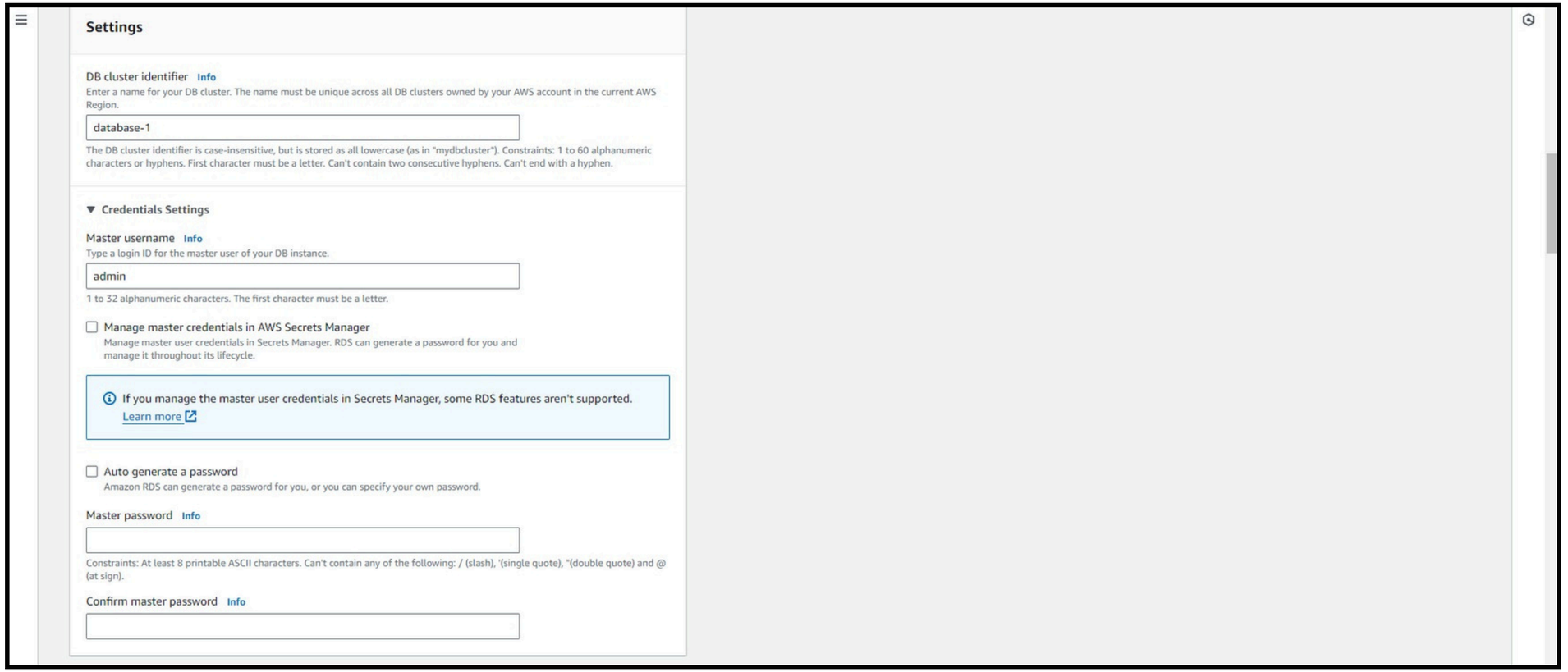
Monitor and Scale: Monitor performance metrics using Amazon CloudWatch and adjust capacity settings as needed to optimize performance and costs.

Tips for Configuration	- Use AWS Console for IAM roles and security groups. - Automate tasks with AWS CLI. - Implement security best practices with IAM and Secrets Manager.
Benefits	- Scalability with auto-scaling based on workload. - Cost efficiency with pay-as-you-go pricing. - High availability with multi-AZ replication.
Problems Solved	- Resource management and operational complexity. - Cost management by scaling based on demand. - Simplified database maintenance tasks.
Examples	- E-commerce platforms handling seasonal traffic. - Content management systems for scalable content storage. - Development/testing environments with on-demand databases.

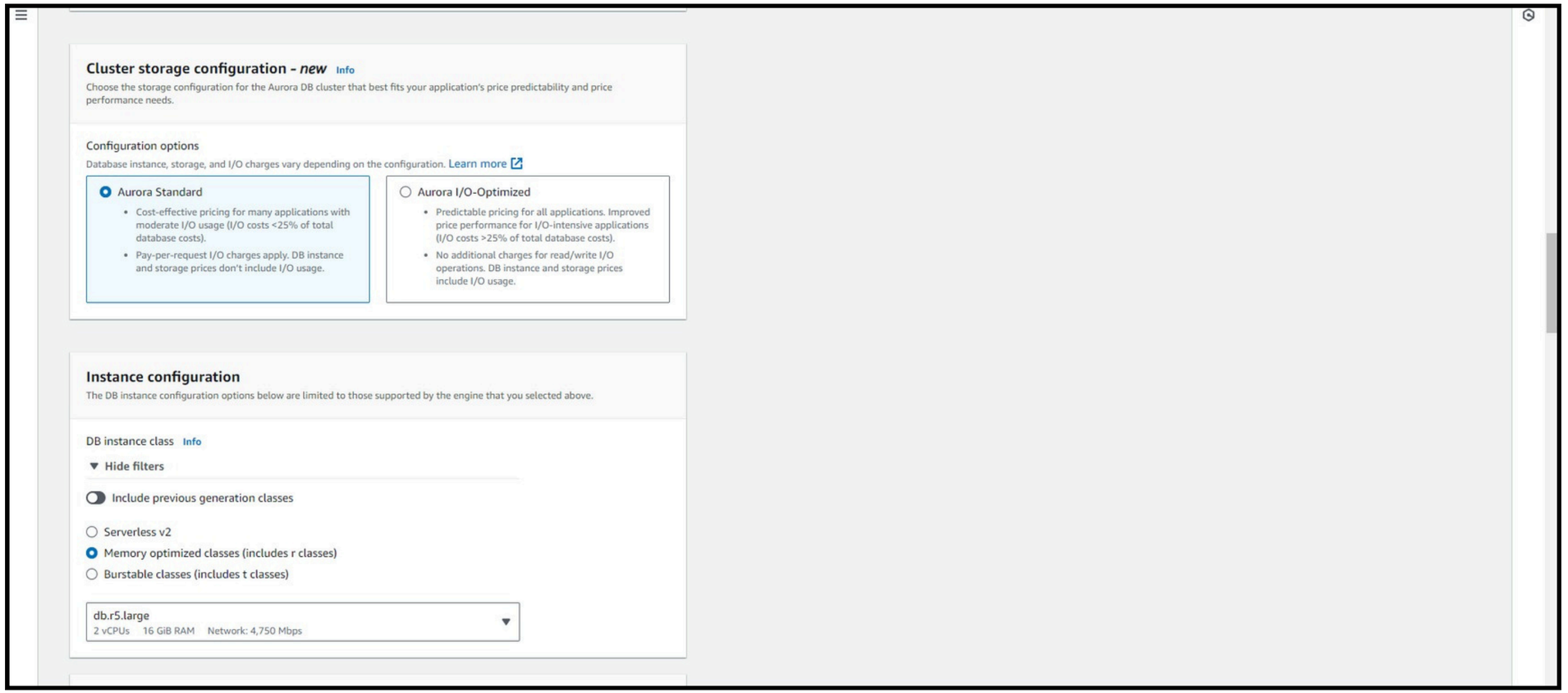


create a RDS database with correct configurations

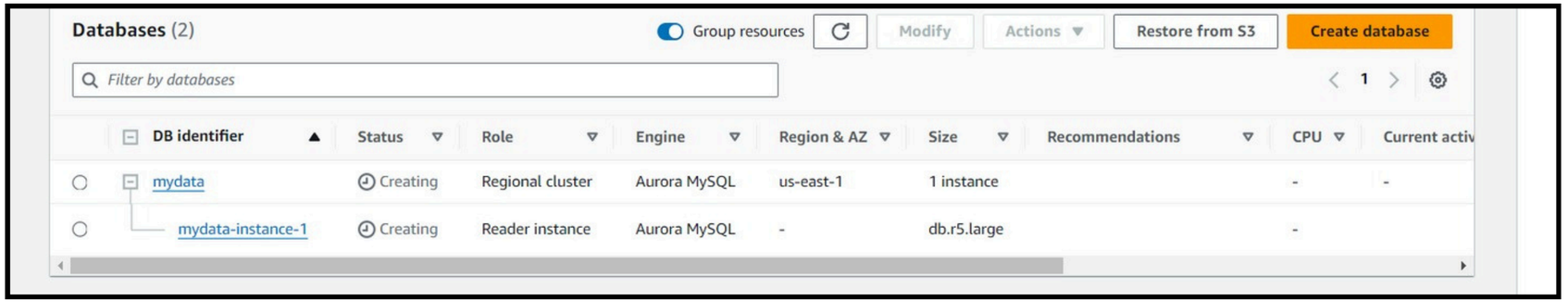


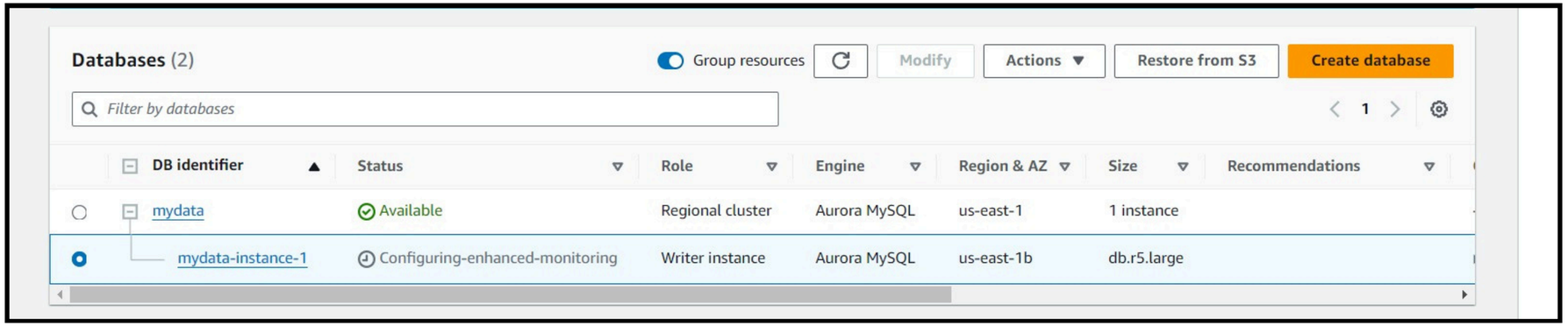


Select the correct template and enter accurate database credentials.

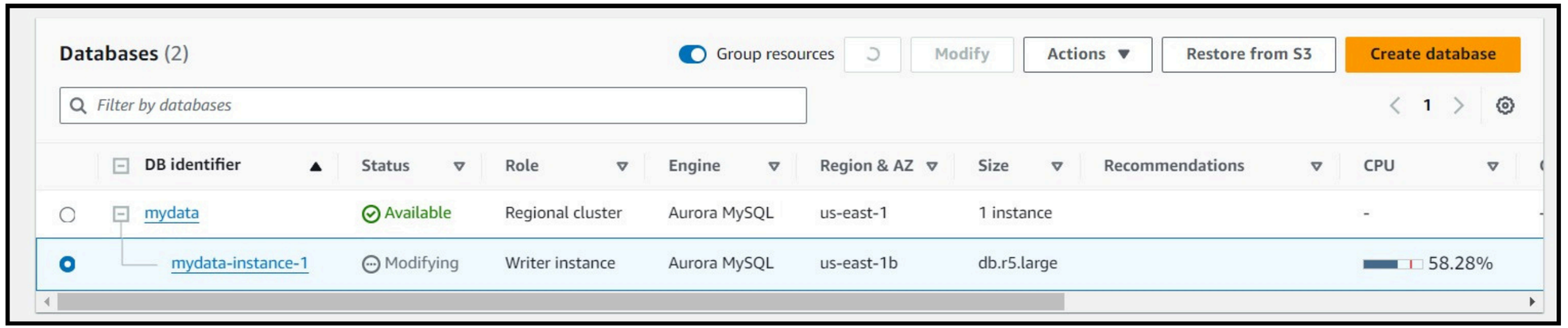


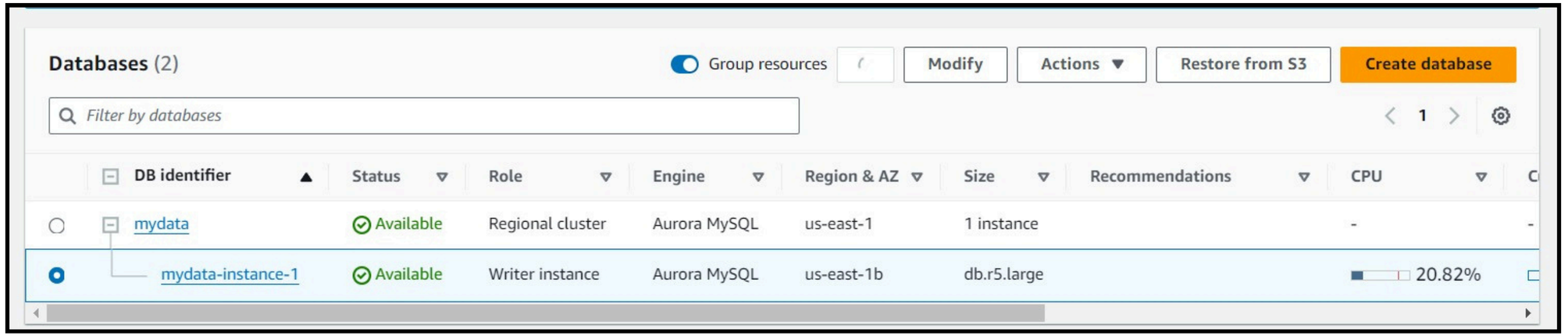
Select the correct configurations. and create the database



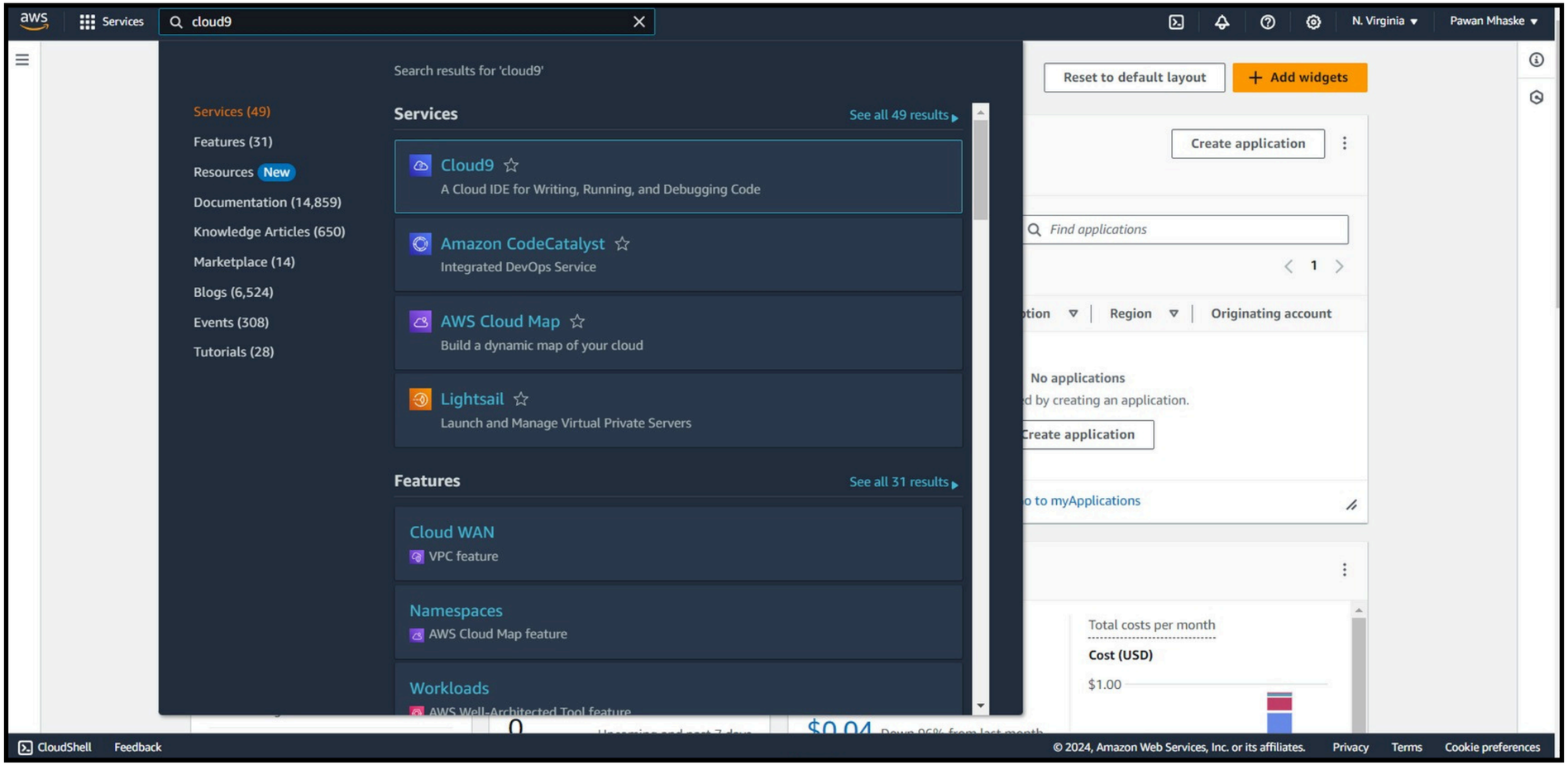


Check the status of the cluster and db instance

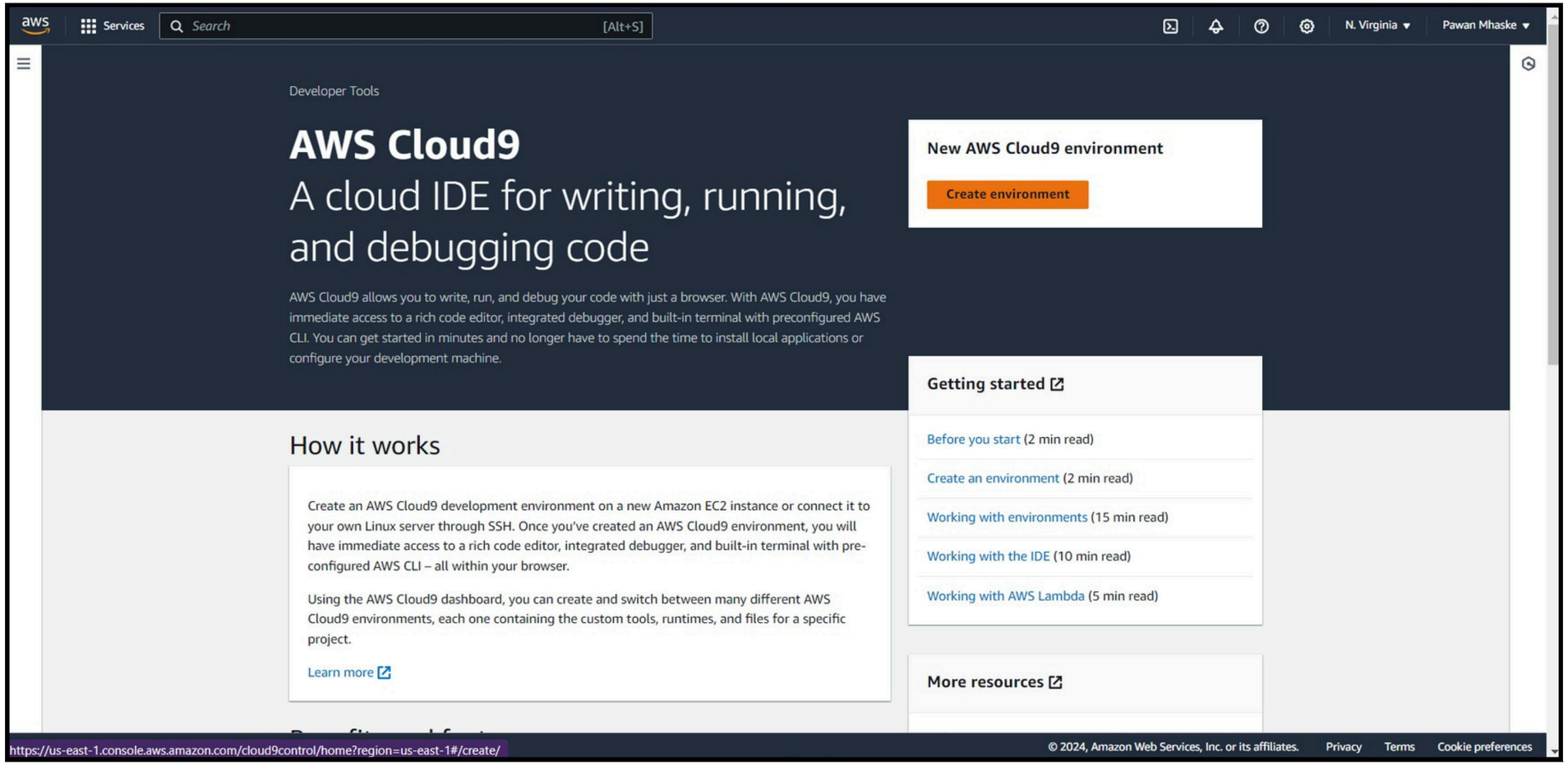




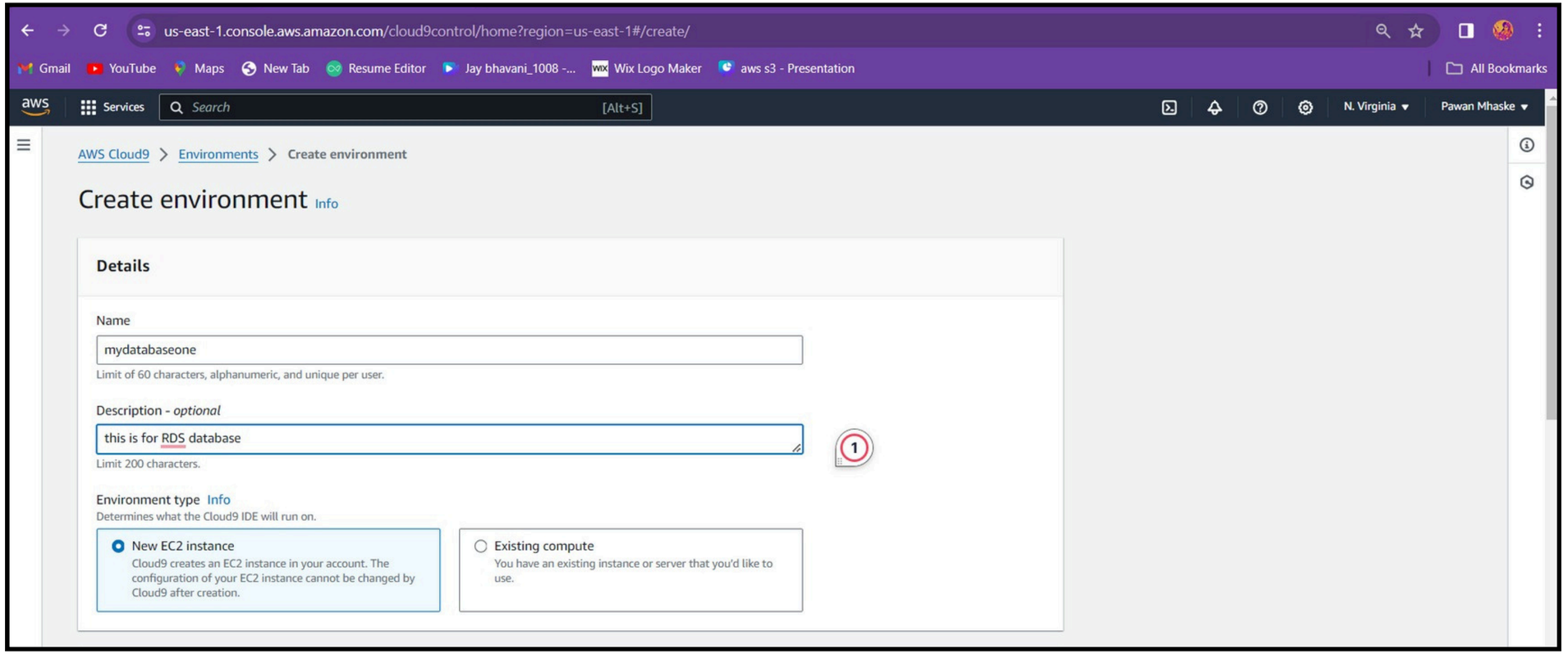
Check the status of the cluster and db instance if it is available then go to the Cloud9 desktop



Enter into the Cloud9

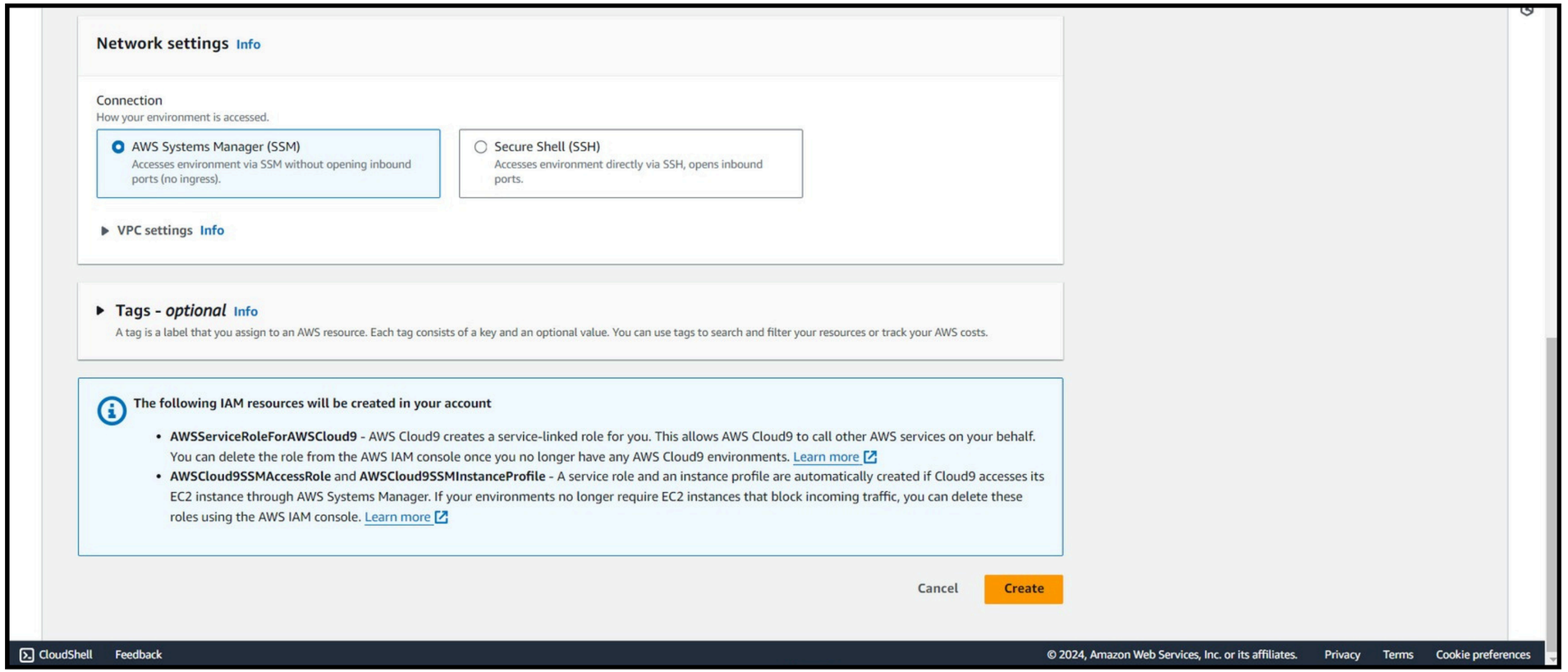


create environment in the Cloud9

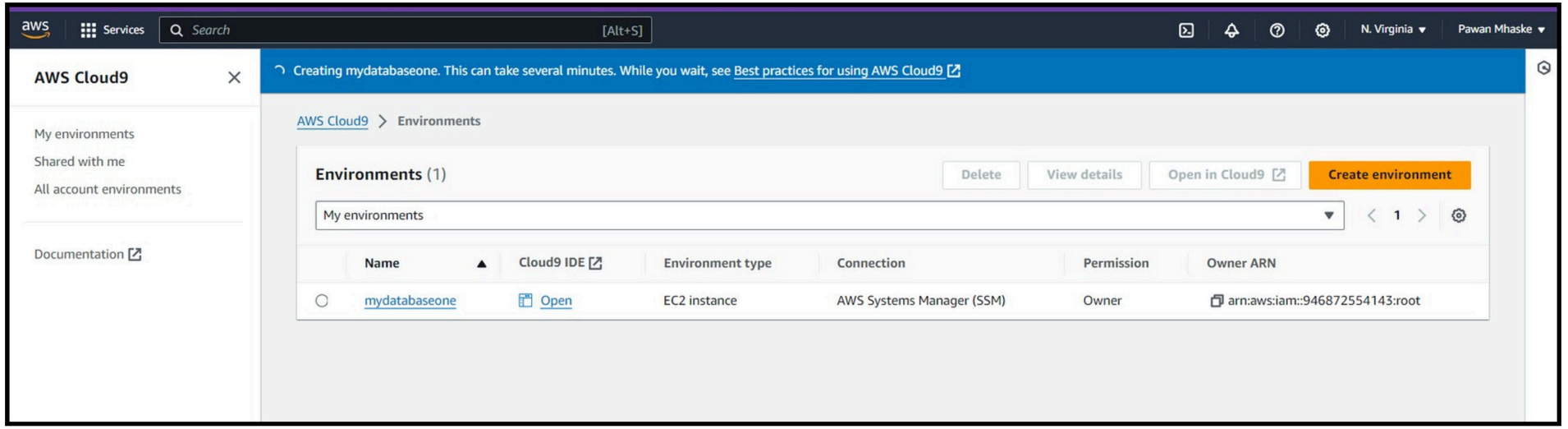


Creating the enviornment with correct configurations

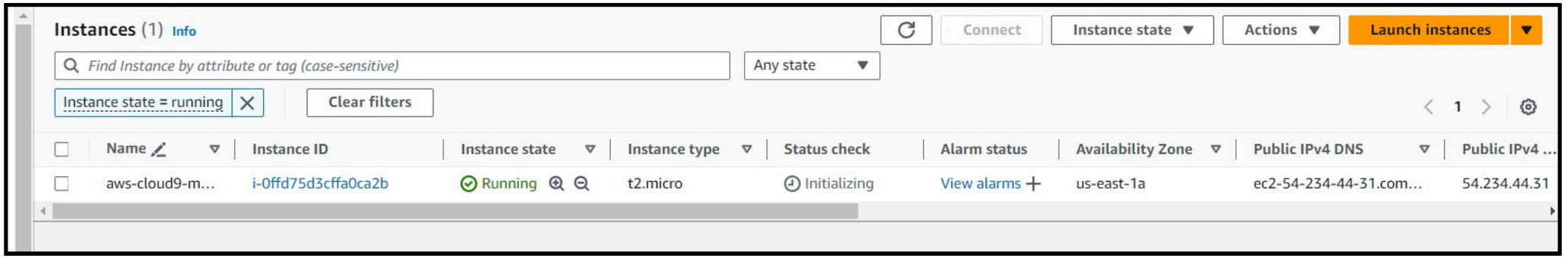
if you’re creating cloud9 environment by default 1 ec2 instance is created



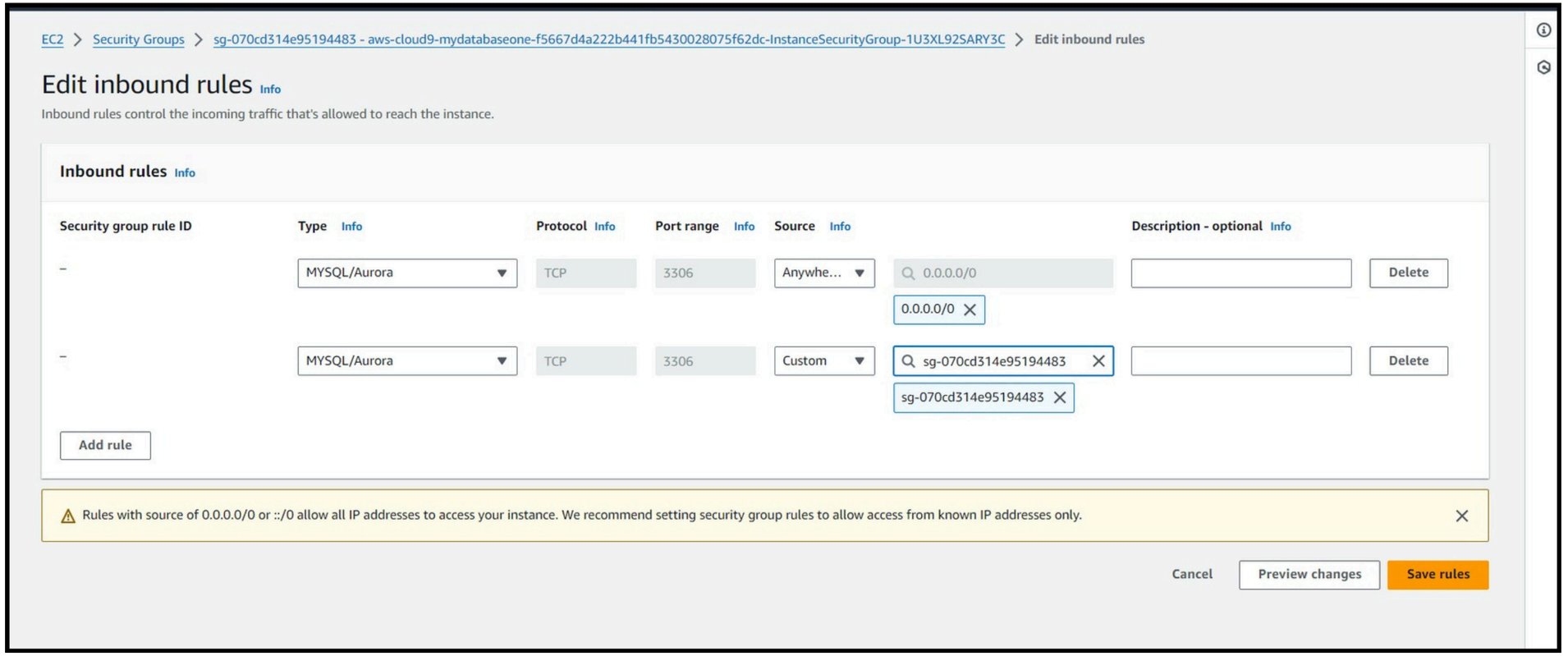
review the configurations and create the environment



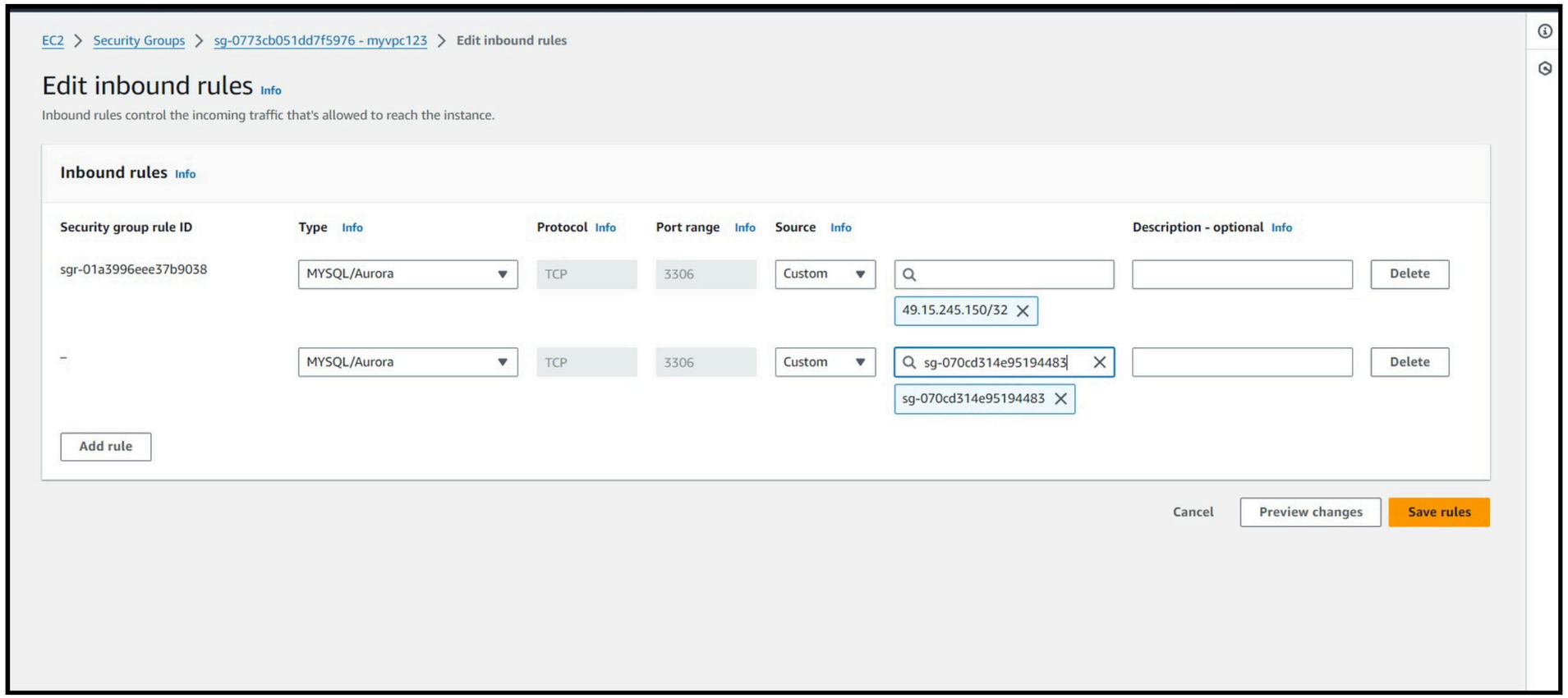
check the Cloud9 environment



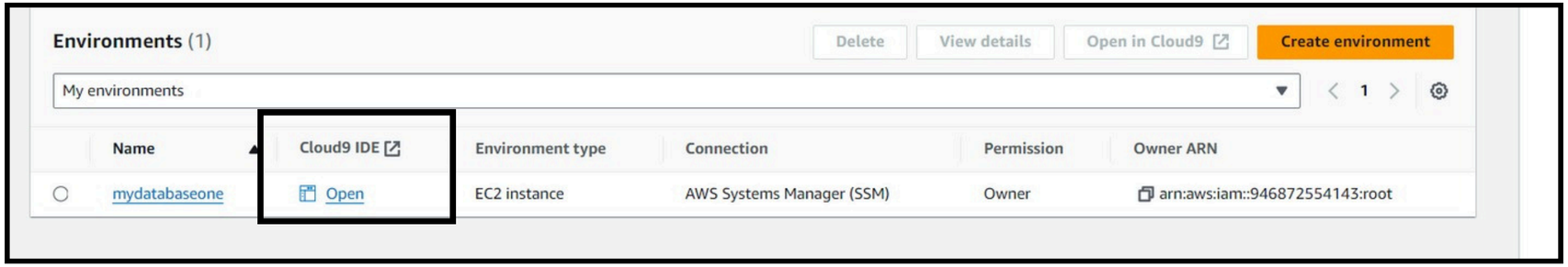
check the ec2 instance status



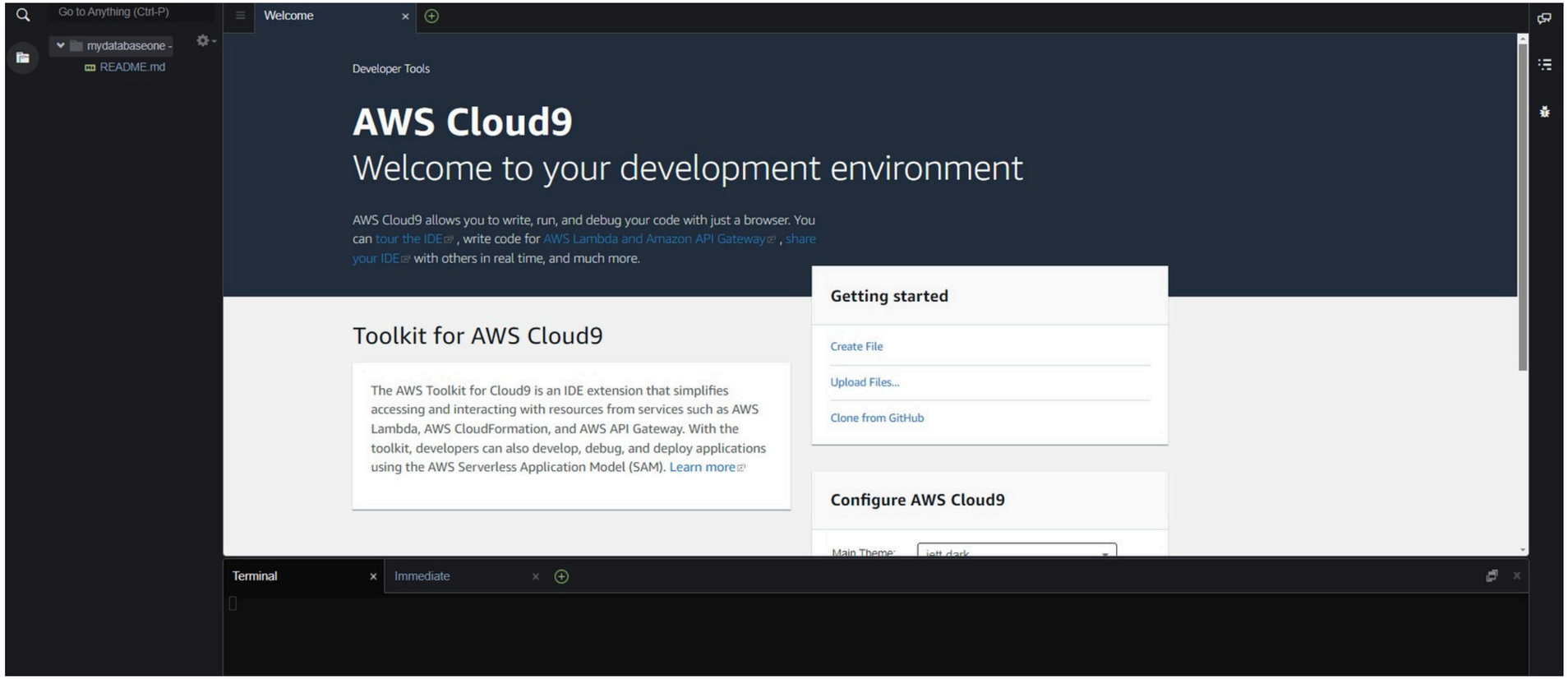
edit the rule in the security group of database

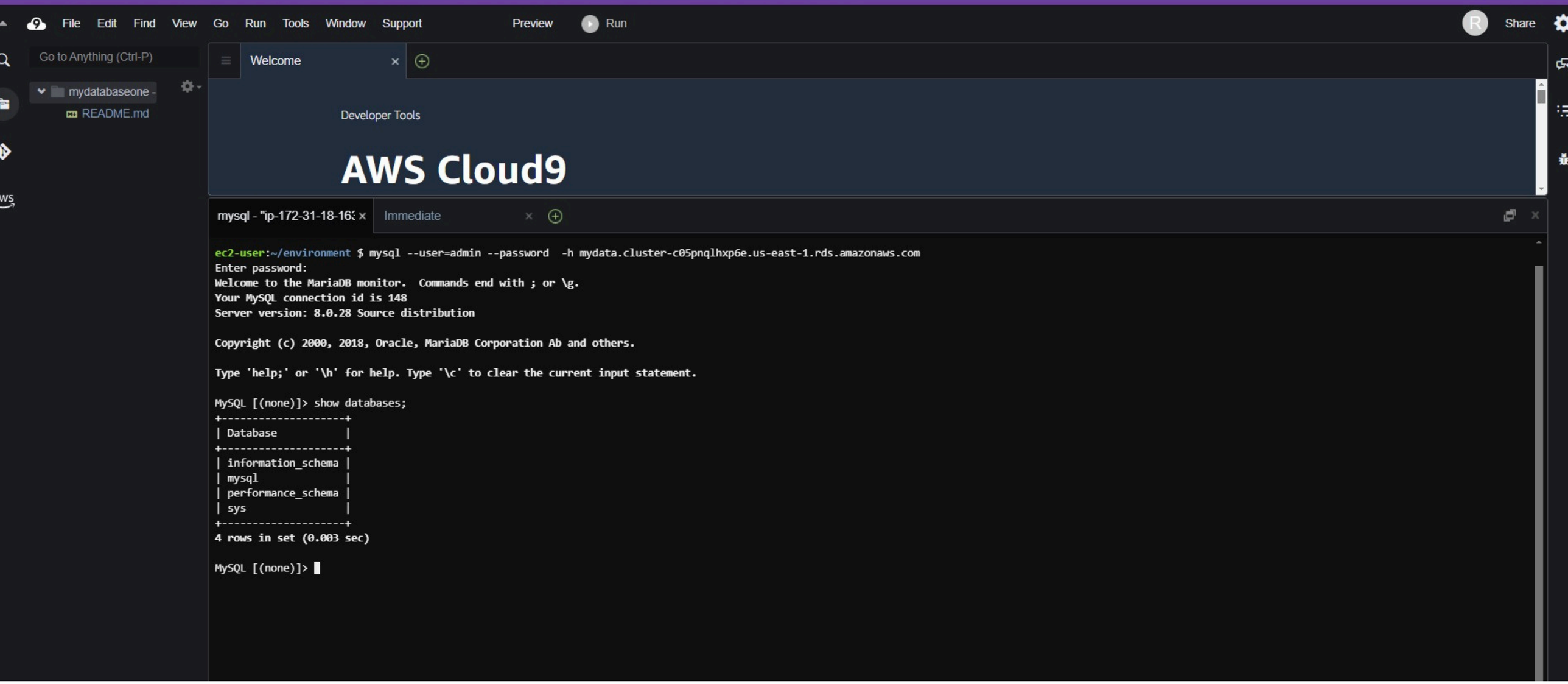


edit the same rule in the VPC of your database



Enter into the cloud9 IDE, which is shown below




File Edit Find View Go Run Tools Window Support
Preview
Run
Share
Go to Anything (Ctrl-P)
mydatabaseone -
README.md
Welcome
Developer Tools
AWS Cloud9
mysql - "ip-172-31-18-16
Immediate
ec2-user:~/environment $ mysql --user=admin --password -h mydata.cluster-c05pnqlhxp6e.us-east-1.rds.amazonaws.com
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MySQL connection id is 148
Server version: 8.0.28 Source distribution
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MySQL [(none)]> show databases;
+--------------------+
| Database |
+--------------------+
| information_schema |
| mysql |
| performance_schema |
| sys |
+--------------------+
4 rows in set (0.003 sec)
MySQL [(none)]>

Result !!!

Thank You !

M.Andrews