RDS AND DYNAMO DB

RDS – RELATIONAL DATABASE SERVICE

Database – collection of data called database, saves user information.

Structured

Unstructured

S3 can store both datas

company

Name

Employee id

Mobile no

Dob

Qualification

Address

Role

Team

Email

Adhar card

Bank ac

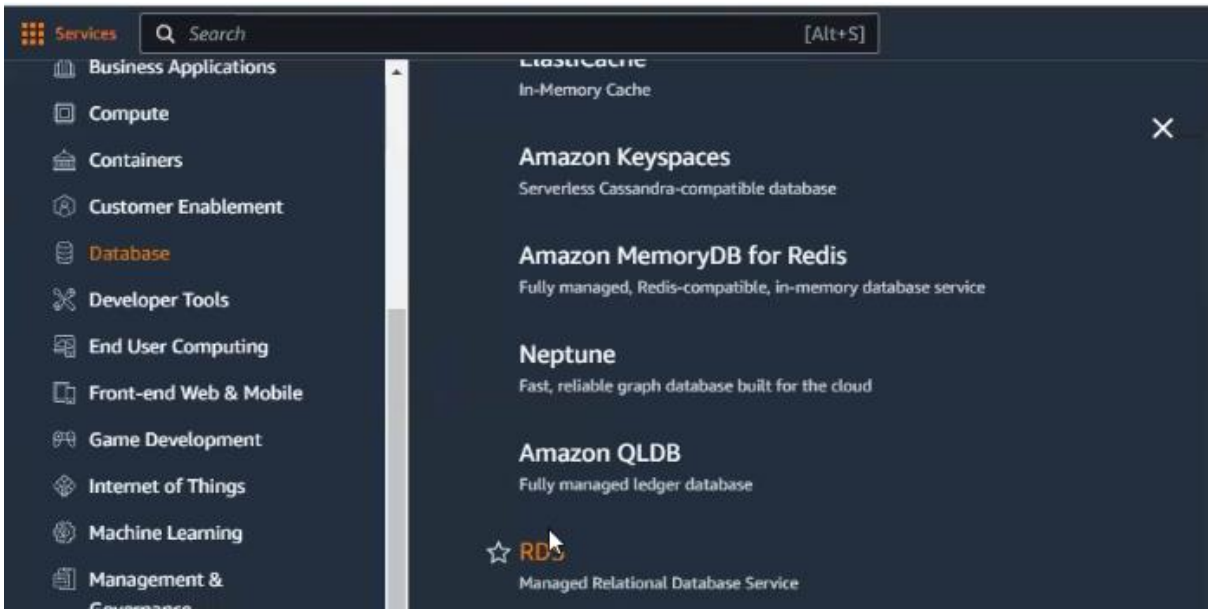
Structured database – sql - RDS

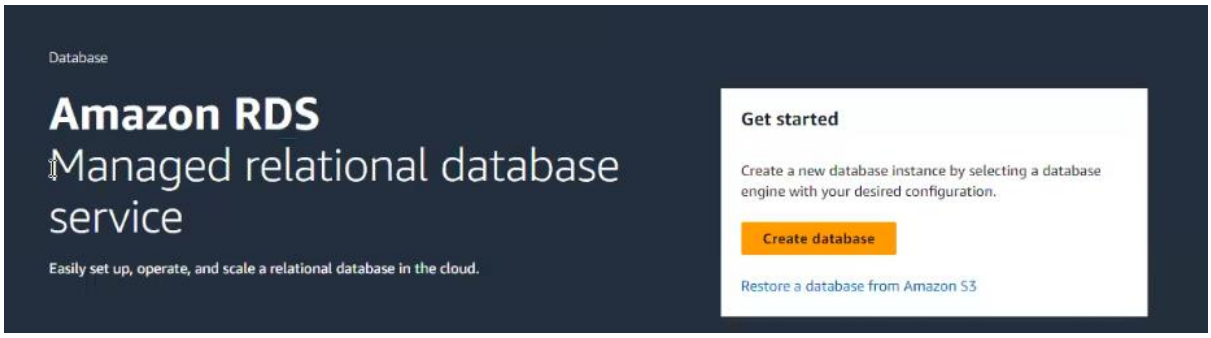
Unstructured database – NoSQL - dynamo DB

Database = Tables – rows and columns

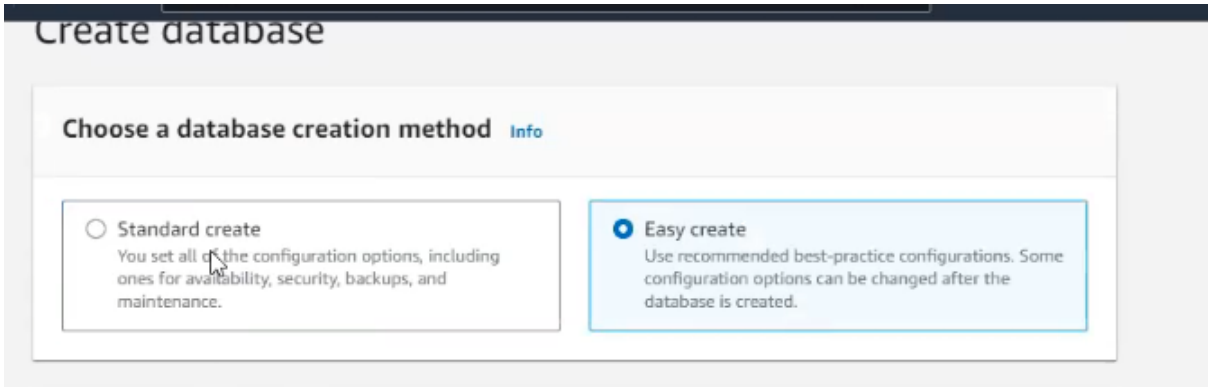
RDS 6 engines

Amazon aurora, mysql, ms sql, maria db, oracle, posg sql

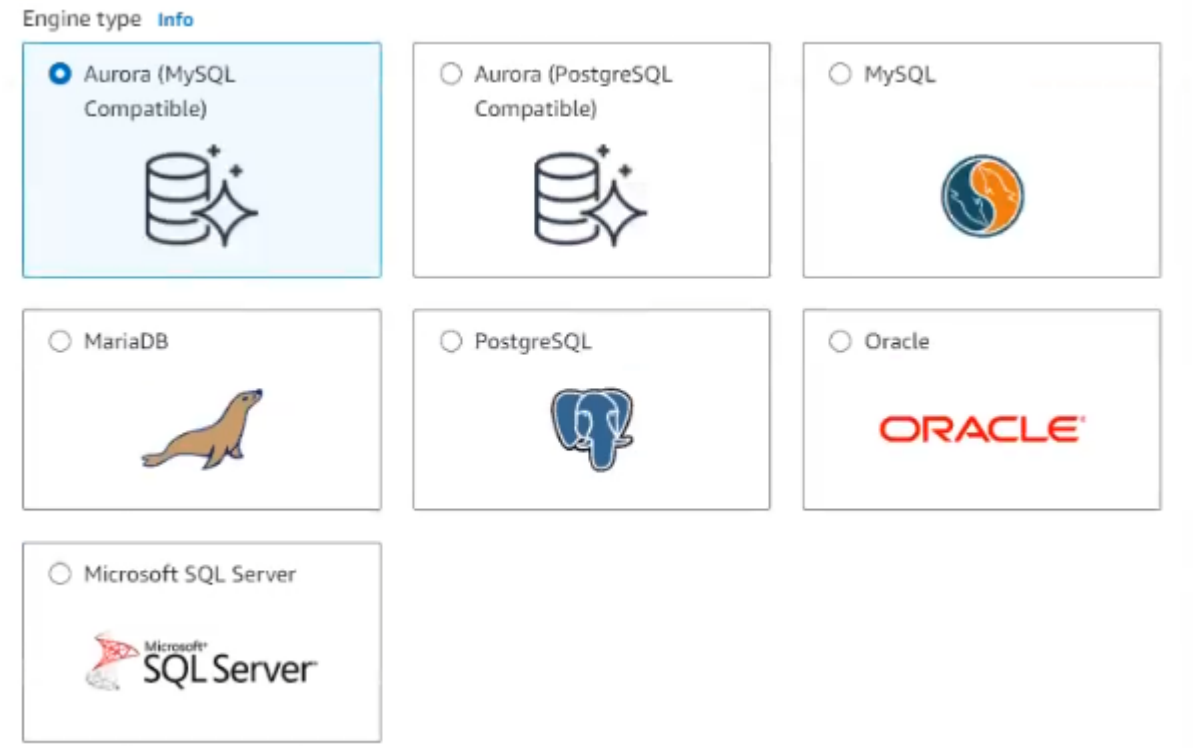




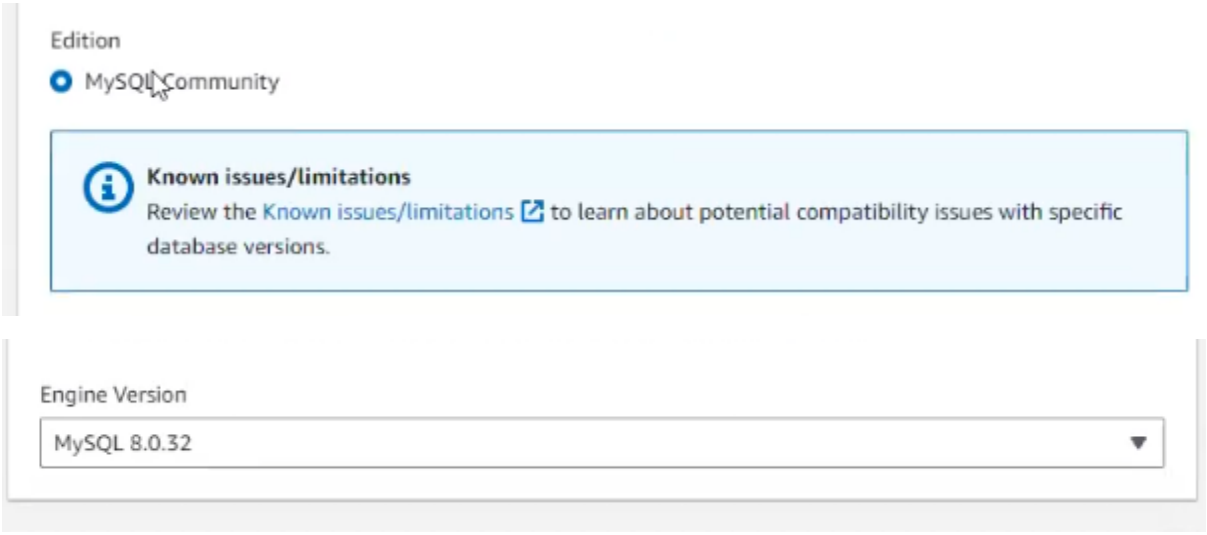
(*) standard create

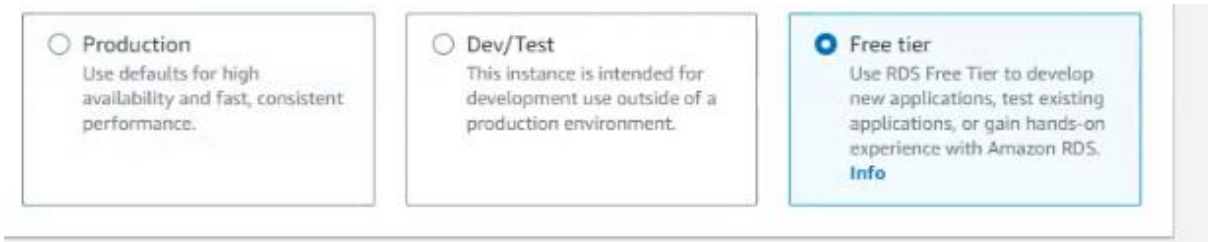


(*) engine type – MySQL



(*) community free





Availability and durability

Deployment options Info

The deployment options below are limited to those supported by the engine you selected above.

- Multi-AZ DB Cluster – *new*
  Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.
- Multi-AZ DB instance (not supported for Multi-AZ DB cluster snapshot)
  Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.
- Single DB instance (not supported for Multi-AZ DB cluster snapshot)
  Creates a single DB instance with no standby DB instances.

Settings

DB instance identifier Info

Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

database-1

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

▼ Credentials Settings

Master username Info

Type a login ID for the master user of your DB instance.

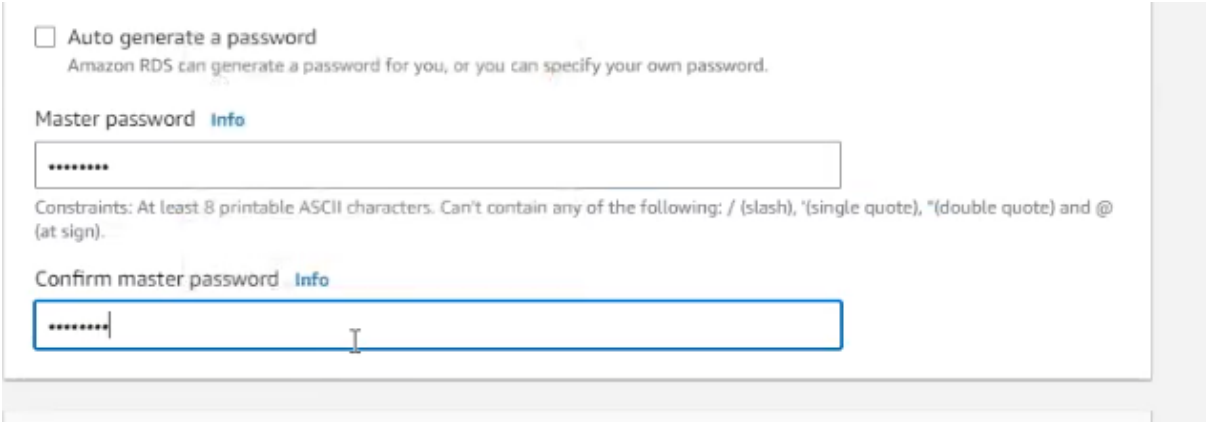
admin

1 to 16 alphanumeric characters. First character must be a letter.

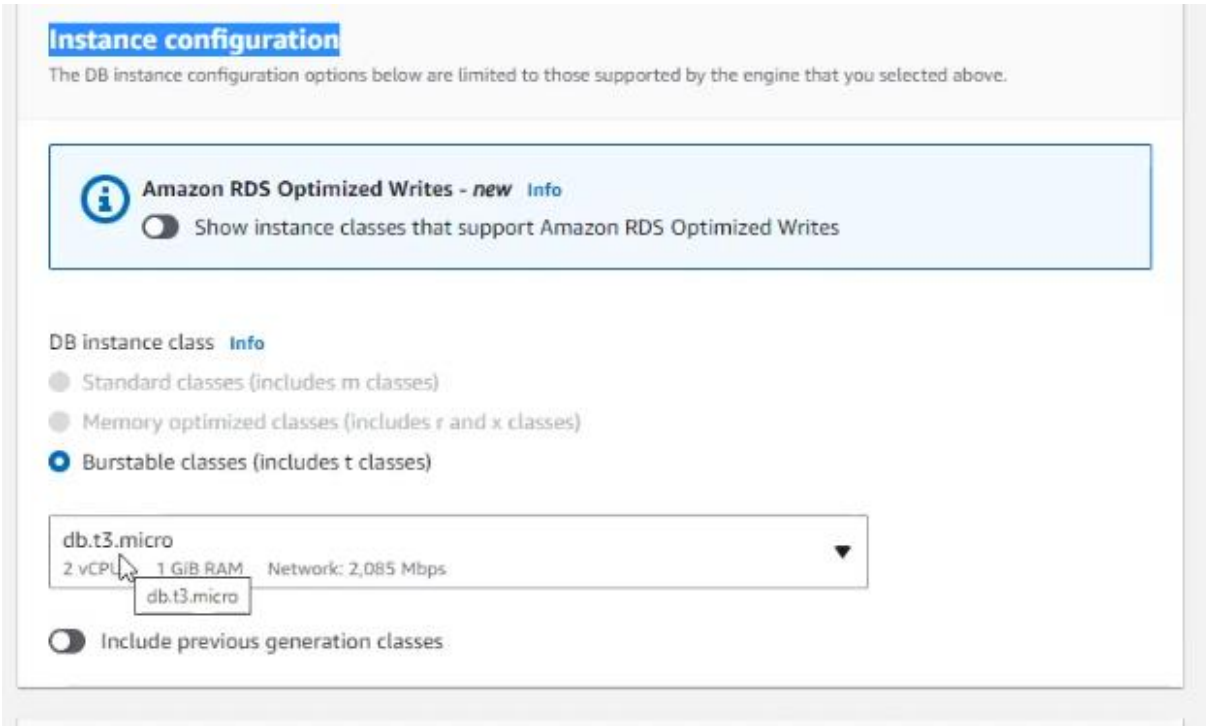
☐ Manage master credentials in AWS Secrets Manager

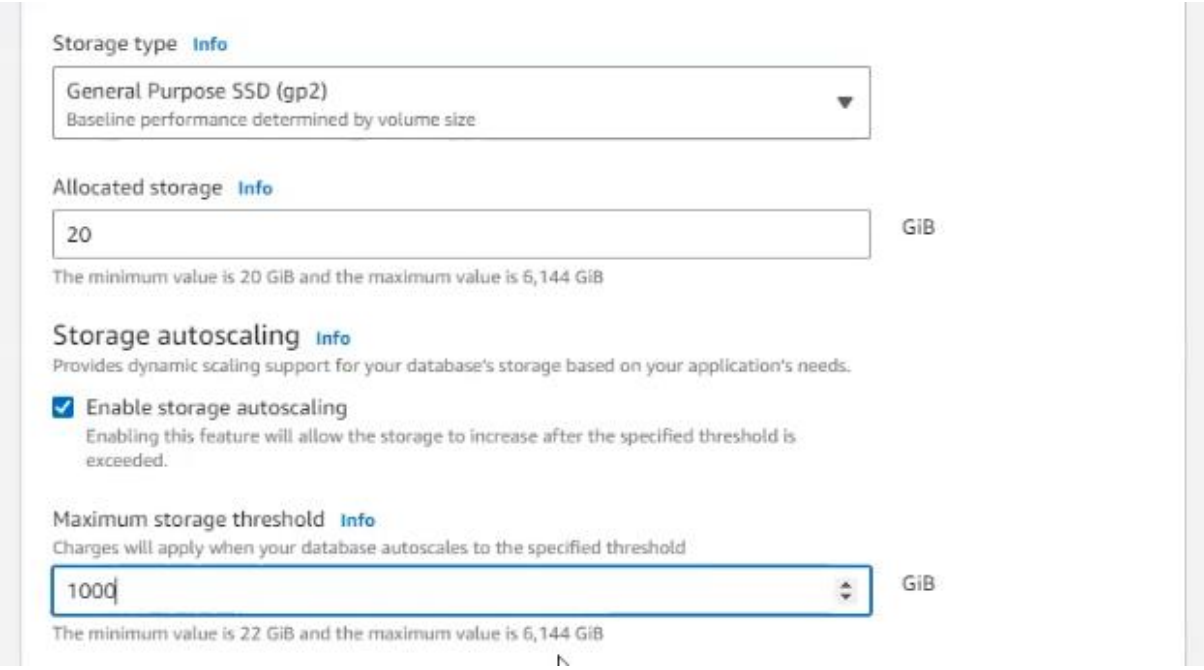
Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.

ⓘ If you manage the master user credentials in Secrets Manager, some RDS features aren't supported.
Learn more

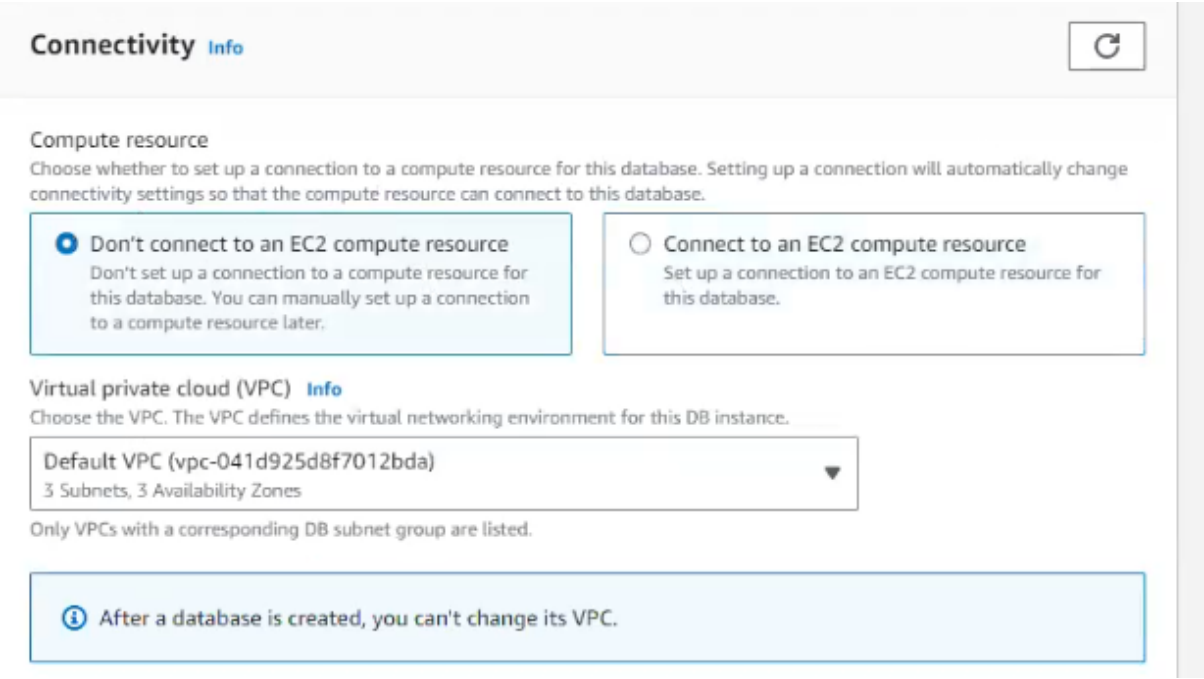


(*) instance configuration

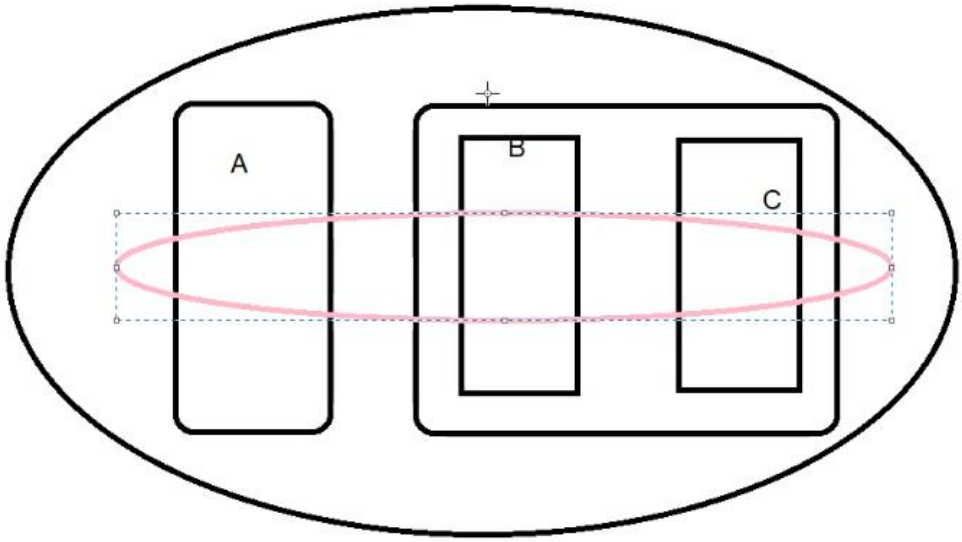




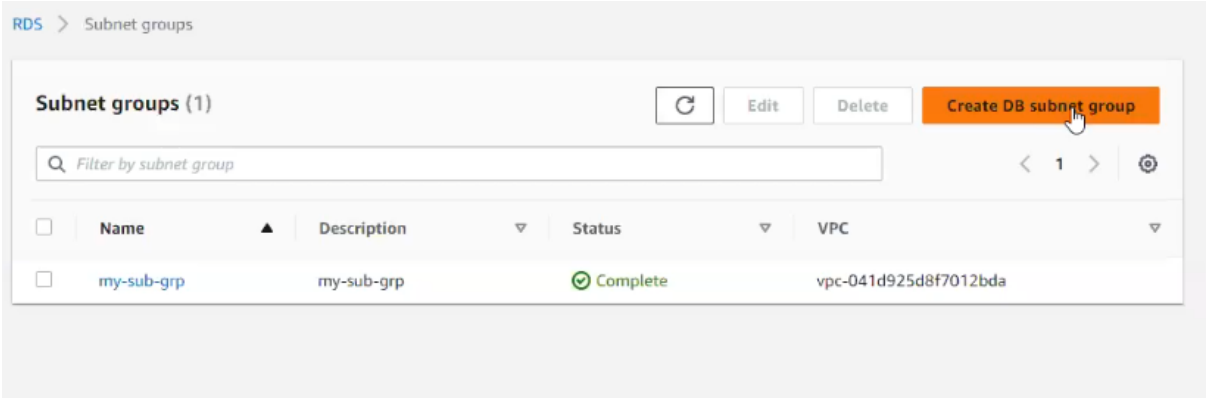
(*) connectivity



Before creating a database we need to create subnet grouping

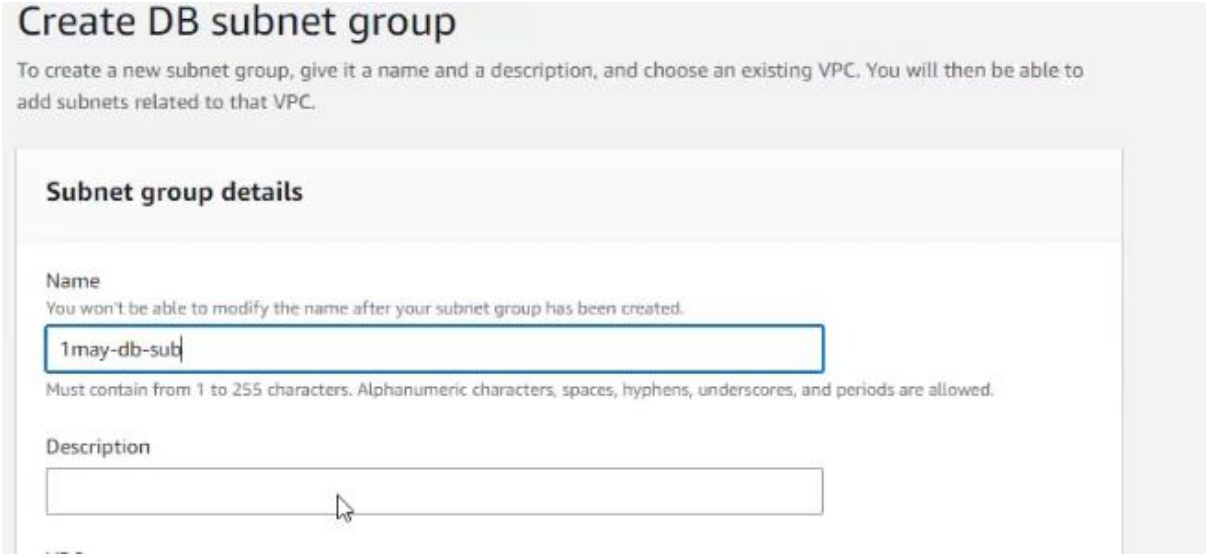


Create subnet group

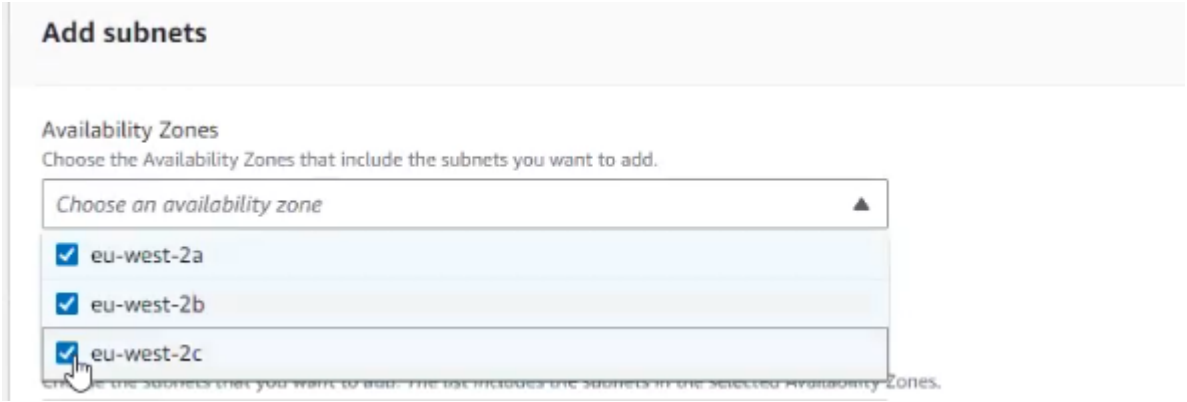


(*)

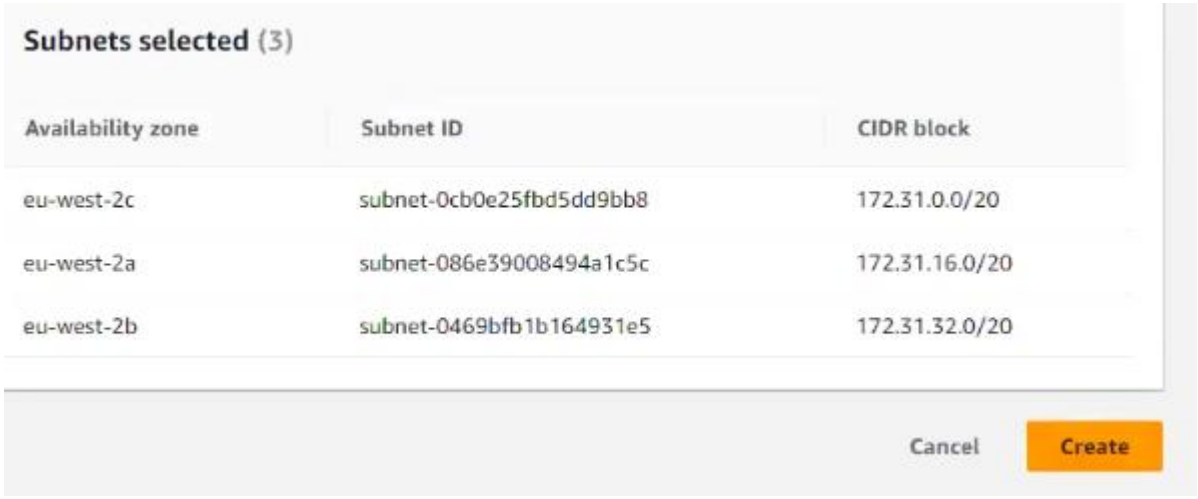
Create name and description



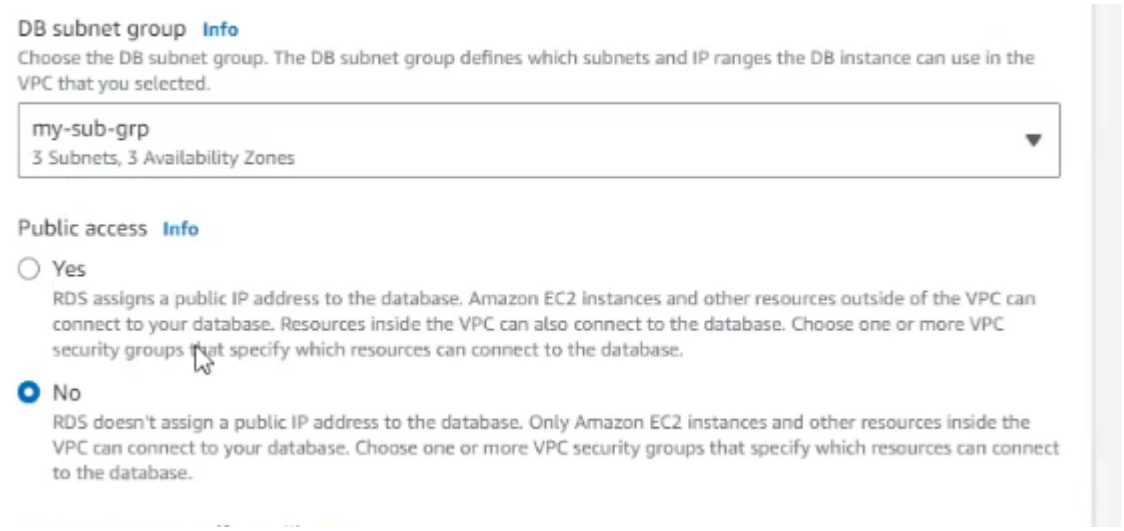
(*) select all availability zone



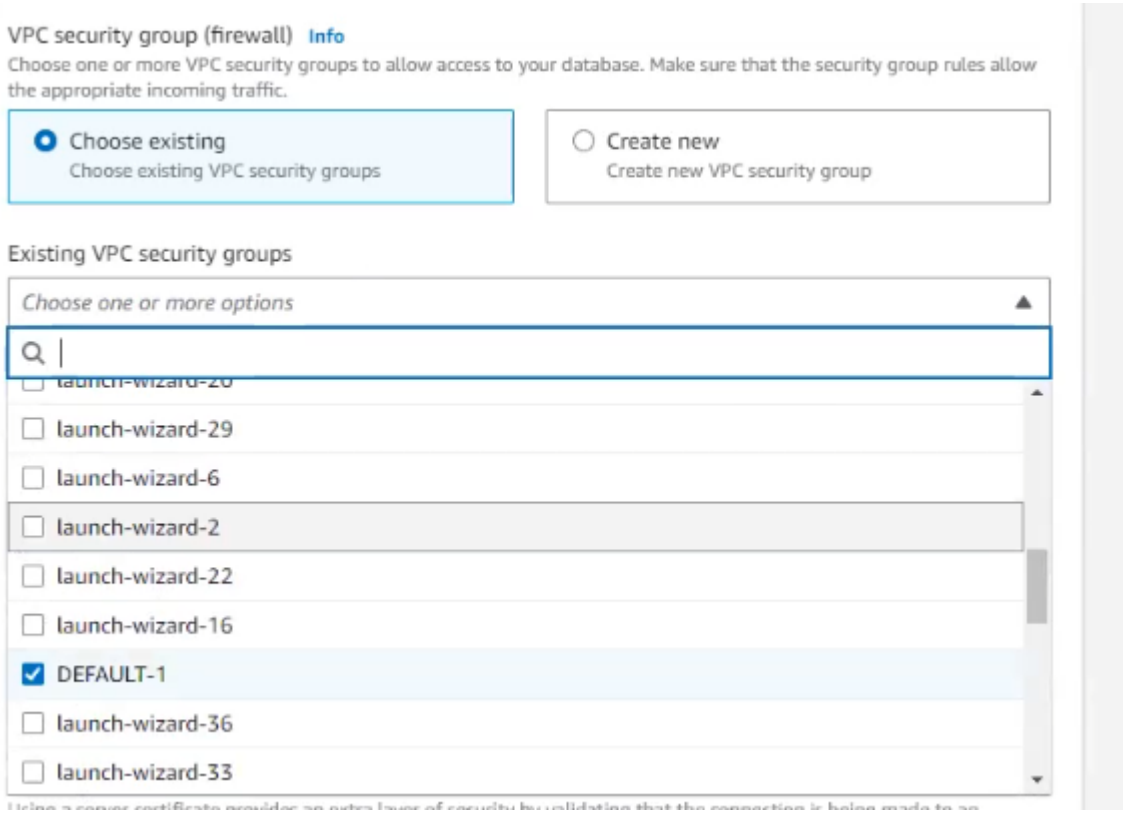
(*) create

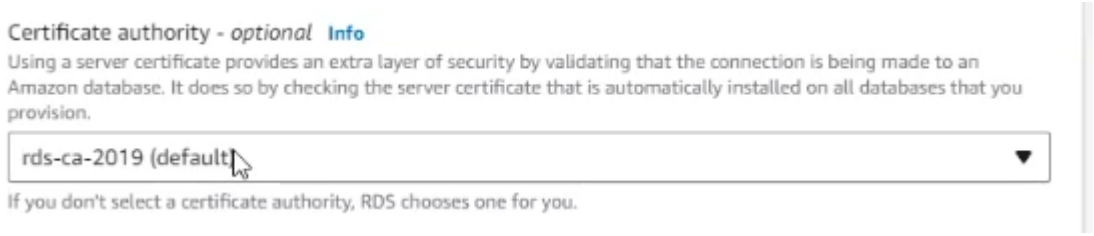


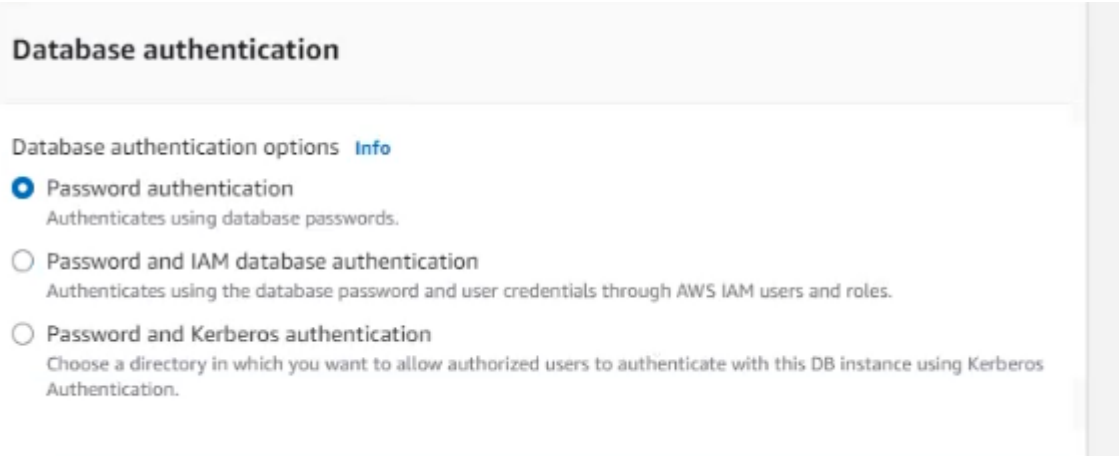
Rds conti

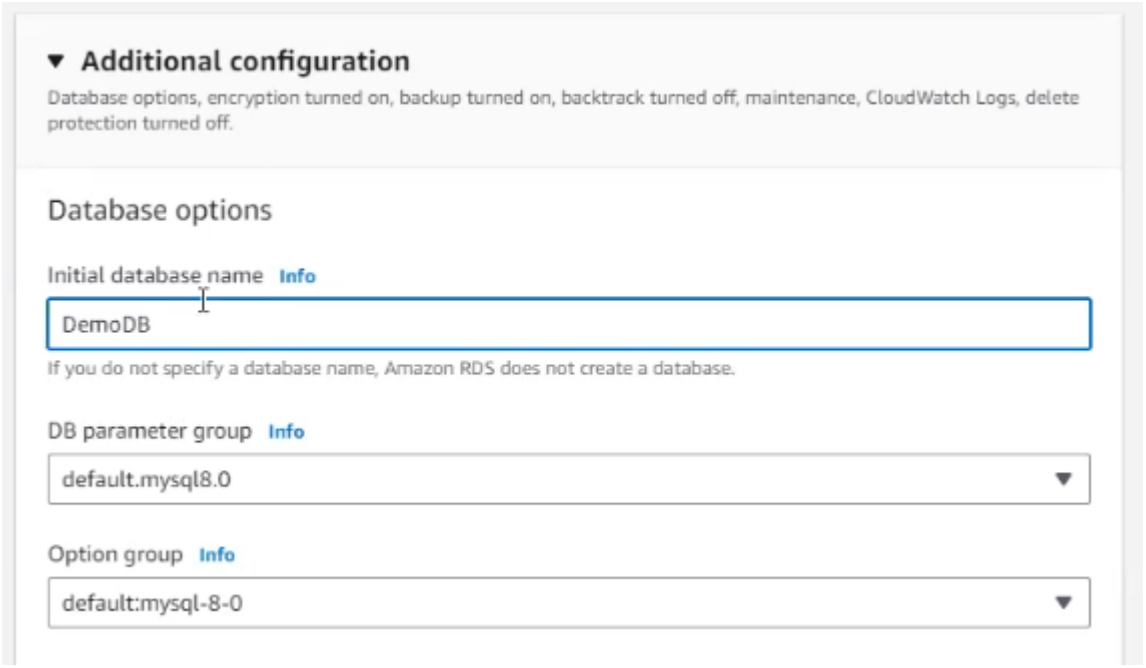


(*) create security group

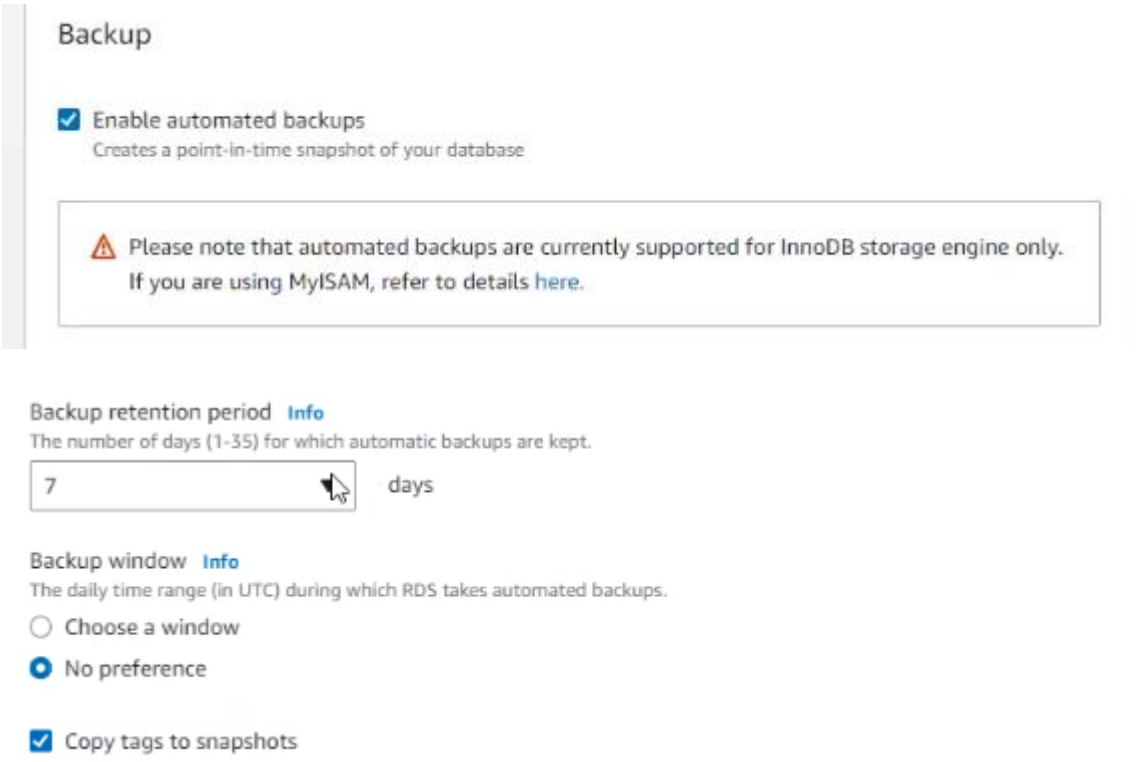








(*) enable automated backup



Encryption

☐ Enable encryption

Choose to encrypt the given instance. Master key IDs and aliases appear in the list after they have been created using the AWS Key Management Service console. **Info**

Log exports

Select the log types to publish to Amazon CloudWatch Logs

- ☐ Audit log
- ☐ Error log
- ☐ General log
- ☐ Slow query log

IAM role

The following service-linked role is used for publishing logs to CloudWatch Logs.

RDS service-linked role

ⓘ Ensure that general, slow query, and audit logs are turned on. Error logs are enabled by default. Learn more

Estimated monthly costs

The Amazon RDS Free Tier is available to you for 12 months. Each calendar month, the free tier will allow you to use the Amazon RDS resources listed below for free:

- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro, db.t3.micro or db.t4g.micro Instance.
- 20 GB of General Purpose Storage (SSD).
- 20 GB for automated backup storage and any user-initiated DB Snapshots.

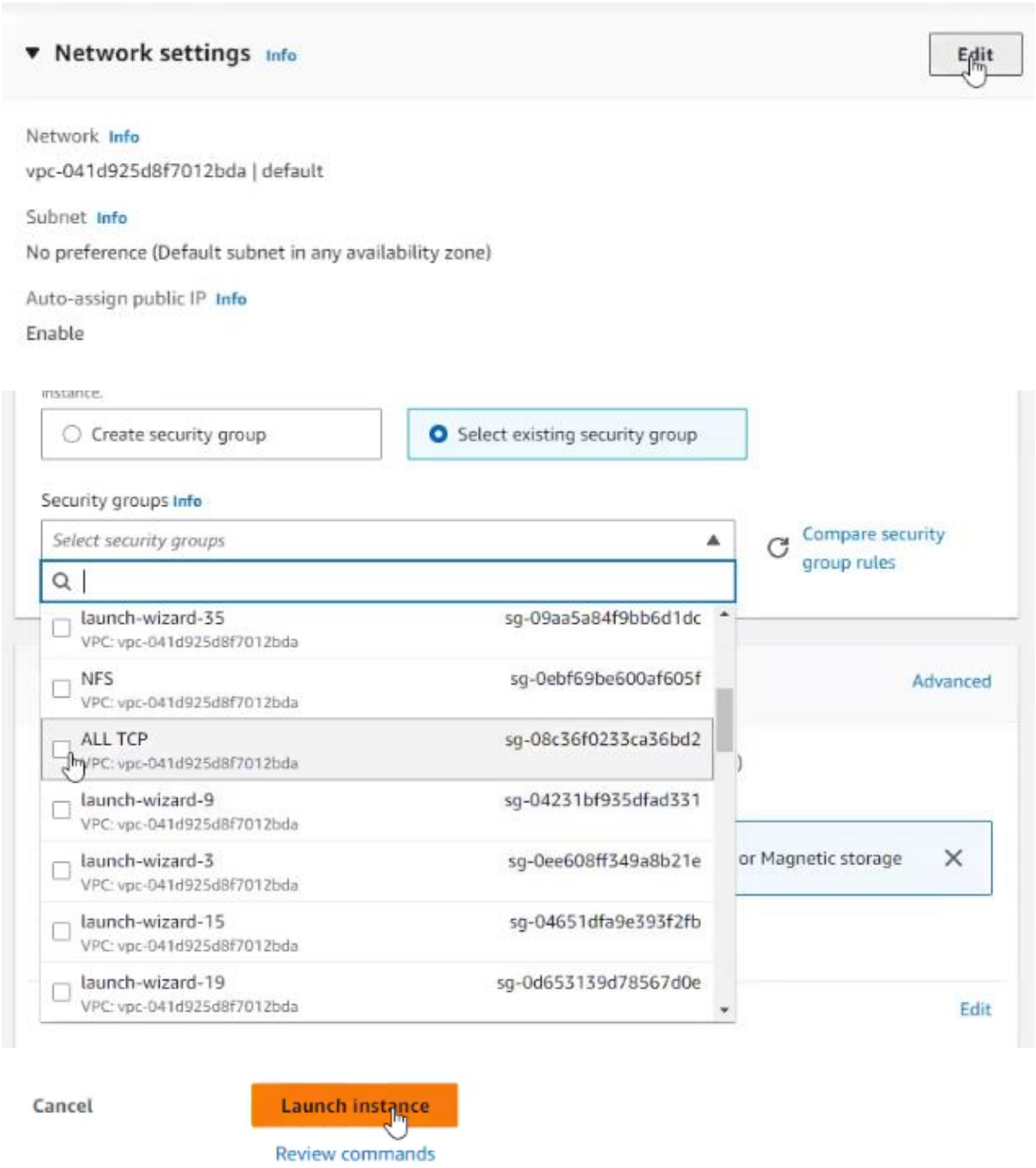
Learn more about AWS Free Tier.

When your free usage expires or if your application use exceeds the free usage tiers, you simply pay standard, pay-as-you-go service rates as described in the Amazon RDS Pricing page.

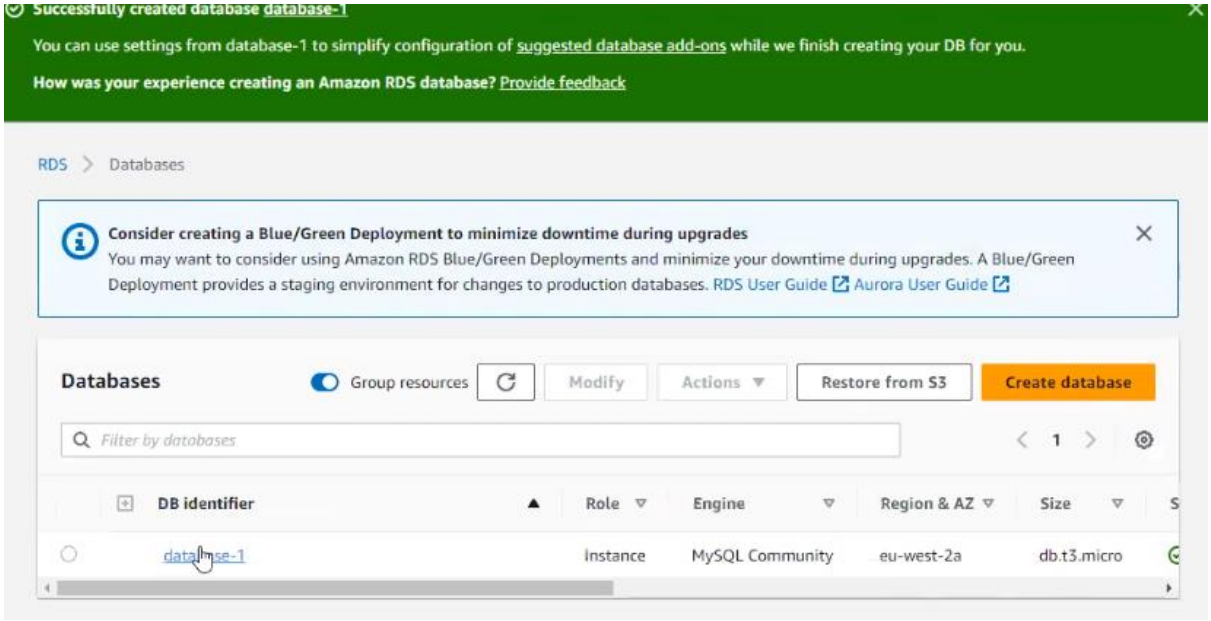
ⓘ You are responsible for ensuring that you have all of the necessary rights for any third-party products or services that you use with AWS services.

Cancel | Create database

(*) create an ec2 instance Linux machine



(*) connect using putty – white color



Copy the endpoint in the database

```
root@ip-172-31-42-145:~
[root@ip-172-31-42-145 ~]# mysql --version
-bash: mysql: command not found
[root@ip-172-31-42-145 ~]# yum install mysql -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package mariadb.x86_64 1:5.5.68-1.amzn2 will be installed
```

Paste endpoint

```
[root@ip-172-31-42-145 ~]# mysql --version
mysql  Ver 15.1 Distrib 5.5.68-MariaDB, for Linux (x86_64) using readline 5.1
[root@ip-172-31-42-145 ~]# mysql -h database-1.cgo3ou9qmrat.eu-west-2.rds.amazonaws.com
```

```
root@ip-172-31-42-145:~
[root@ip-172-31-42-145 ~]# mysql --version
mysql  Ver 15.1 Distrib 5.5.68-MariaDB, for Linux (x86_64) using readline 5.1
[root@ip-172-31-42-145 ~]# mysql -h database-1.cgo3ou9qmrat.eu-west-2.rds.amazonaws.com -P 3306 -u admin -p
Enter password:
```

Quries:

1.yum update

2. yum install mysql -y

3.mysql -h (end point) -P (port no) -u (user name) -p (password)

4. show databases;

5.create database authours;

6.use authours;

7.create table authour (id int,name varchar(25),email varchar (26));

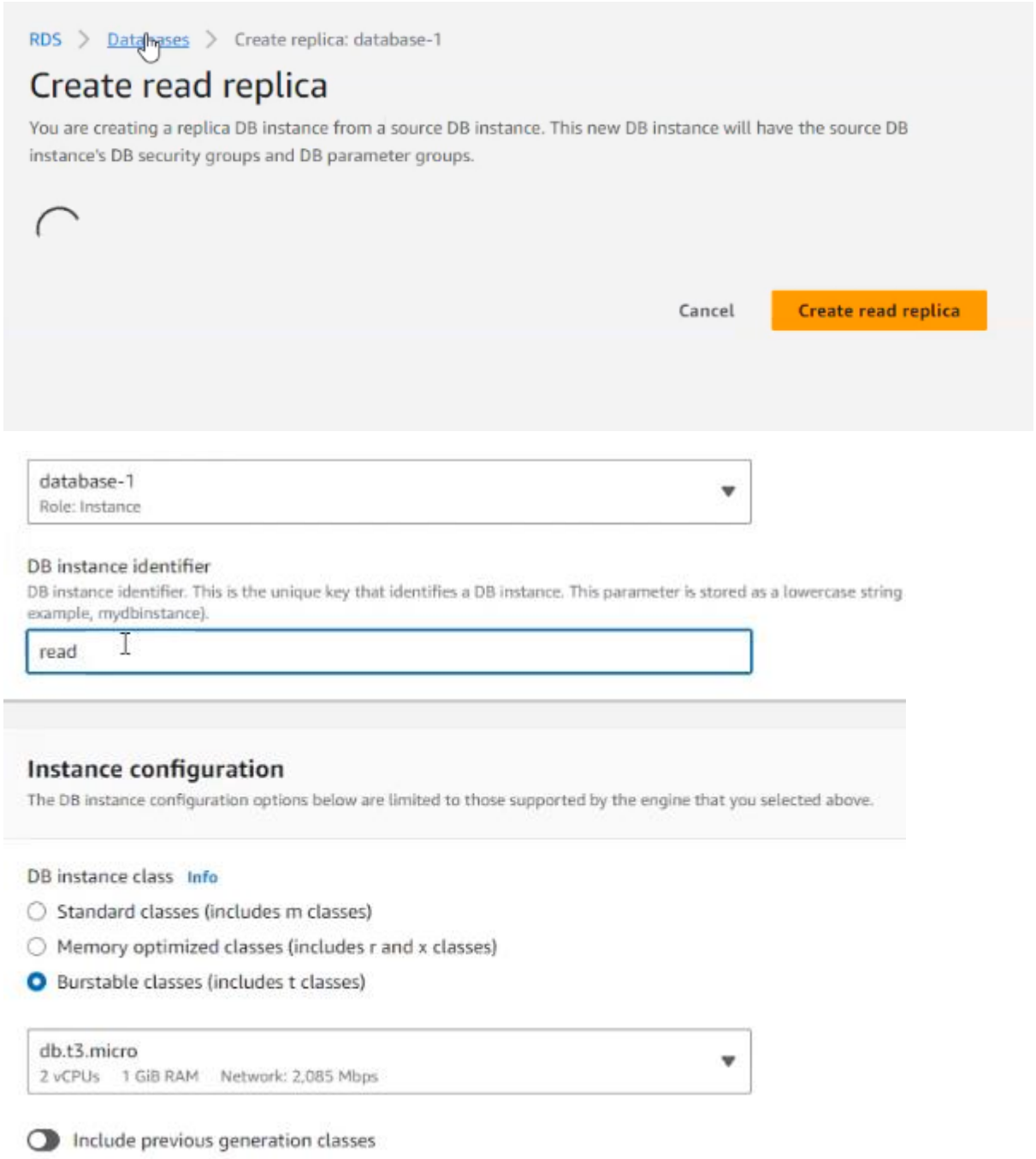
8.insert into authour (id,name,email) values('111',"samuvel","samuvel@gmail.com");
insert into authour (id,name,email) values('222',"janathul","janathul@gmail.com");
insert into authour (id,name,email) values('333',"priya","priya@gmail.com");

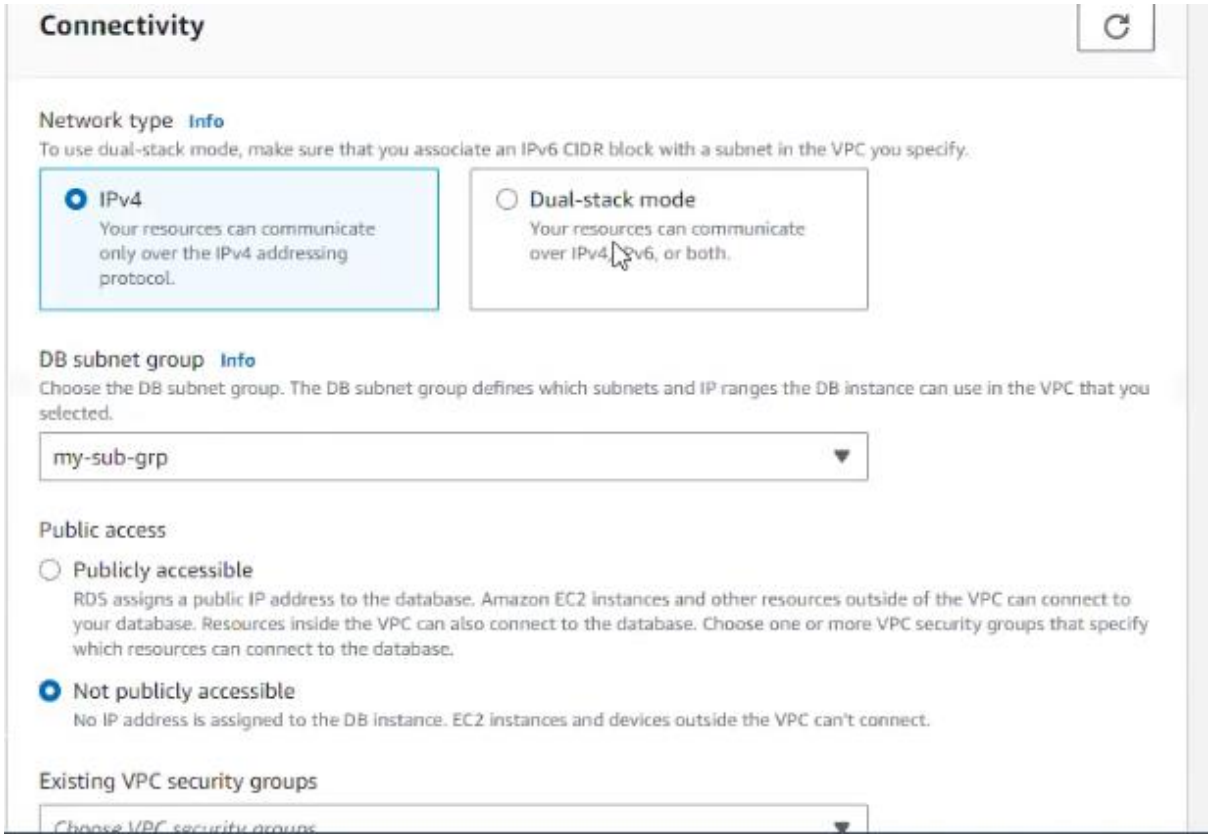
9. select * from authour;

10. alter table authour rename users;

11. select * from users;

12. alter table users add column address varchar(100);
13. update users set id='777' where id='111';
14. delete from users where id='777';
15. drop database greensdb;


RDS > Databases > Create replica: database-1
Create read replica
You are creating a replica DB instance from a source DB instance. This new DB instance will have the source DB instance's DB security groups and DB parameter groups.
Cancel
Create read replica
database-1
Role: Instance
DB instance identifier
DB instance identifier. This is the unique key that identifies a DB instance. This parameter is stored as a lowercase string example, mydbinstance).
read
Instance configuration
The DB instance configuration options below are limited to those supported by the engine that you selected above.
DB instance class Info
Standard classes (includes m classes)
Memory optimized classes (includes r and x classes)
Burstable classes (includes t classes)
db.t3.micro
2 vCPUs 1 GiB RAM Network: 2,085 Mbps
Include previous generation classes

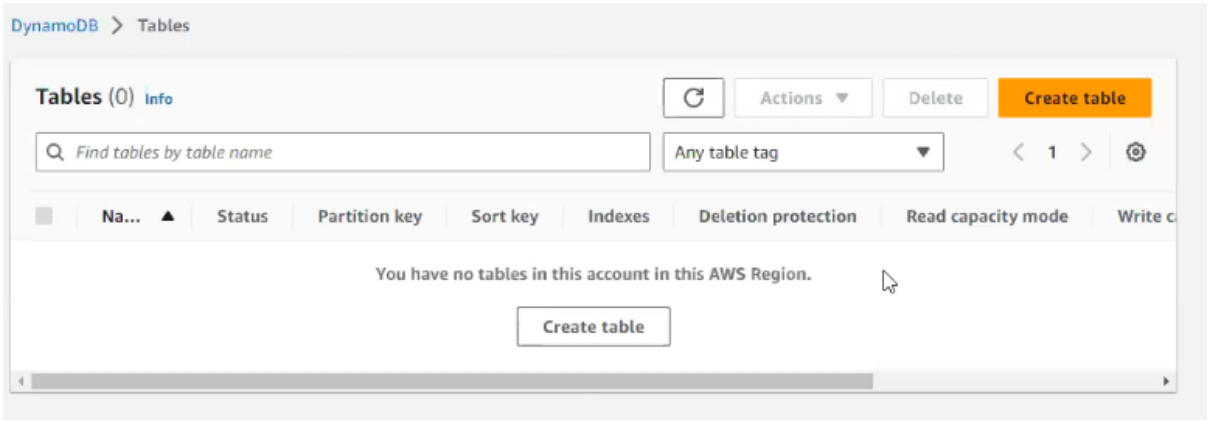


(*) all same as database create read replica

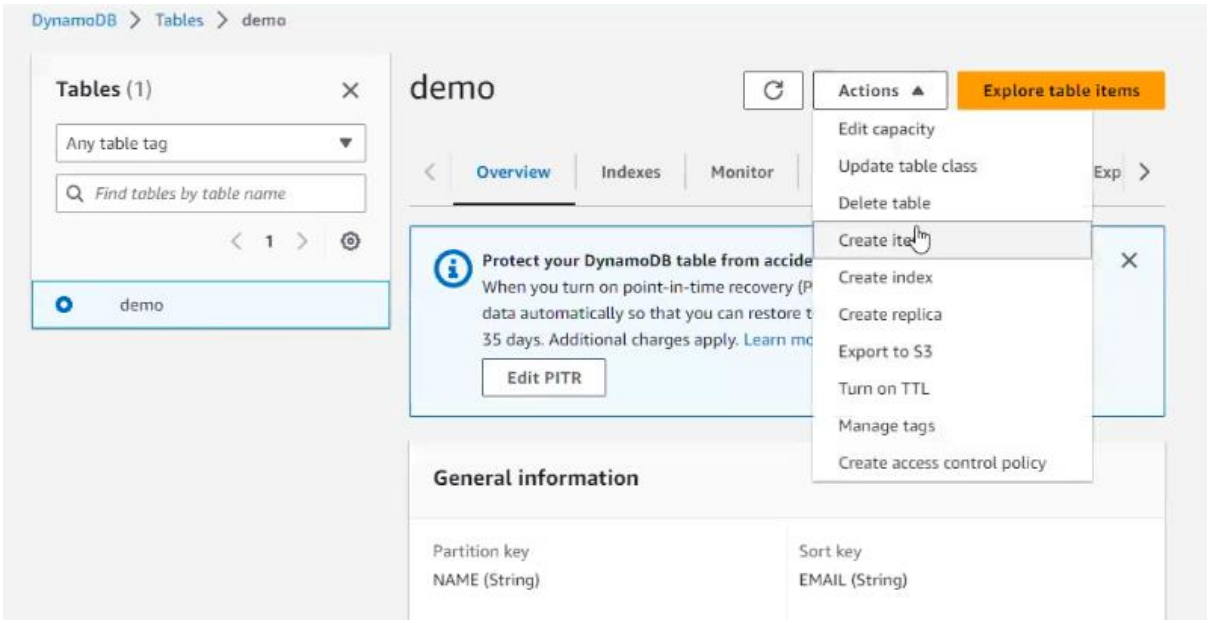
Black machine as replica

Copy endpoint from read replica -h

DYNAMO DB



NAME, EMAIL – CREATE TABLE



(*) create item