

RDS Tasks -01

- Create MariaDB DB on EC2.

```
[ec2-user@ip-172-31-16-26 ~]$ sudo dnf install mariadb105-server -y
Last metadata expiration check: 0:00:23 ago on Thu Jan 29 09:29:14 2026.
Dependencies resolved.

=====
| Package           | Arch | Version | Repository | S
=====
| Installing:
|   mariadb105-server | x86_64 | 3:10.5.29-1.amzn2023.0.1 | amazonlinux | 1
| Installing dependencies:
|   mariadb-connector-c | x86_64 | 3.3.10-1.amzn2023.0.1 | amazonlinux | 21
|   mariadb-connector-c-config | noarch | 3.3.10-1.amzn2023.0.1 | amazonlinux | 9.
|   mariadb105 | x86_64 | 3:10.5.29-1.amzn2023.0.1 | amazonlinux | 1.
|   mariadb105-common | x86_64 | 3:10.5.29-1.amzn2023.0.1 | amazonlinux | 2
|   mariadb105-errmsg | x86_64 | 3:10.5.29-1.amzn2023.0.1 | amazonlinux | 21
|   mysql-selinux | noarch | 1.0.4-2.amzn2023.0.3 | amazonlinux | 3
|   perl-B | x86_64 | 1.80-477.amzn2023.0.7 | amazonlinux | 17
```

```
[root@ip-172-31-16-26 ec2-user]# sudo mysql_secure_installation
```

```
NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
      SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!
```

```
In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.
```

```
Enter current password for root (enter for none):
OK, successfully used password, moving on...
```

```
Setting the root password or using the unix_socket ensures that nobody
can log into the MariaDB root user without the proper authorisation.
```

```
You already have your root account protected, so you can safely answer 'n'.
```

```
Switch to unix_socket authentication [Y/n] n
... skipping.
```

```
You already have your root account protected, so you can safely answer 'n'.
```

```
Change the root password? [Y/n] n
... skipping.
```

```
By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them. This is intended only for testing, and to make the installation
go a bit smoother. You should remove them before moving into a
production environment.
```

```
[root@ip-172-31-16-26 ec2-user]# mysql -u root -p
```

```
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 5
Server version: 10.5.29-MariaDB MariaDB Server
```

```
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
```

```
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

- Insert some dummy data.

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```
MariaDB [(none)]> CREATE DATABASE demo;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> USE demo;
Database changed
MariaDB [demo]>
MariaDB [demo]> CREATE TABLE users (
    -> id INT AUTO_INCREMENT PRIMARY KEY,
    -> name VARCHAR(50),
    -> email VARCHAR(50)
    -> );
Query OK, 0 rows affected (0.008 sec)

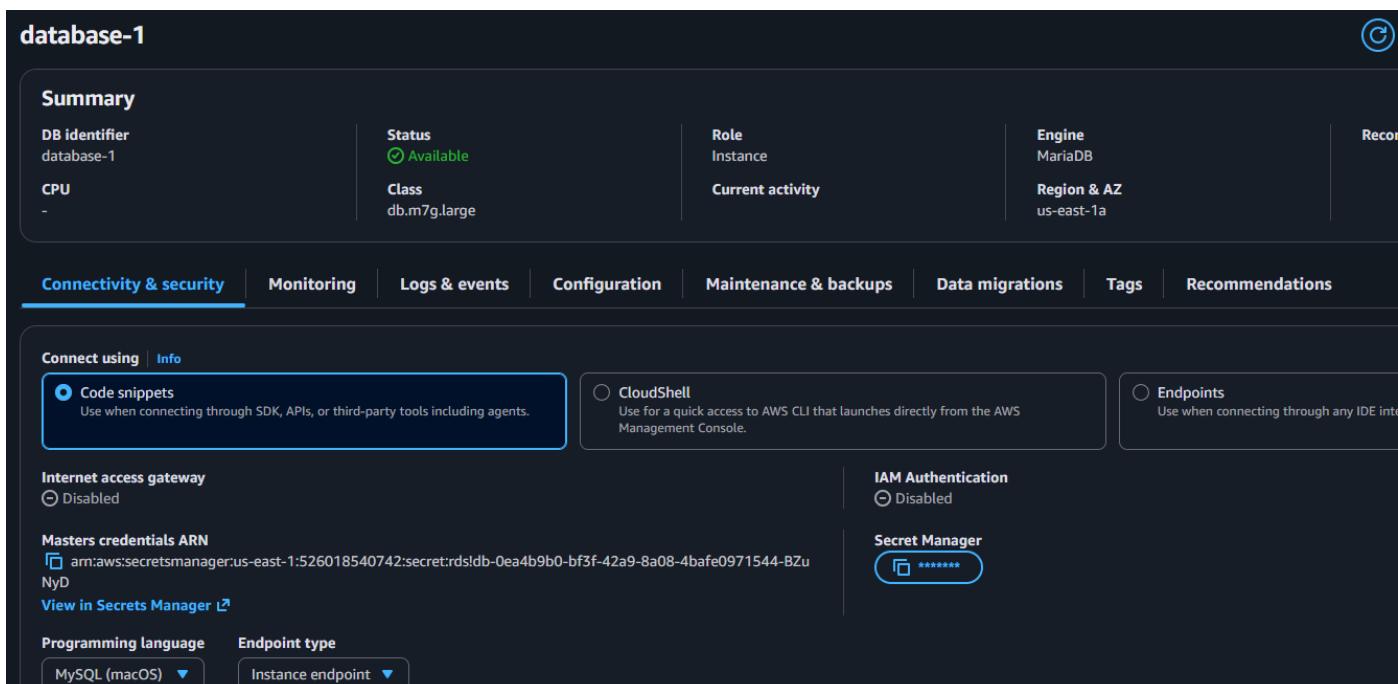
MariaDB [demo]>
MariaDB [demo]> INSERT INTO users VALUES
    -> (1,'Alice','alice@test.com'),
    -> (2,'Bob','bob@test.com'),
    -> (3,'Charlie','charlie@test.com');
Query OK, 3 rows affected (0.002 sec)
Records: 3  Duplicates: 0  Warnings: 0

MariaDB [demo]>
MariaDB [demo]> SELECT * FROM users;
+---+-----+
| id | name   | email      |
+---+-----+
| 1  | Alice  | alice@test.com |
| 2  | Bob    | bob@test.com  |
| 3  | Charlie | charlie@test.com |
+---+-----+
3 rows in set (0.000 sec)
```

- Take the backup of dummy data on EC2.

```
[root@ip-172-31-16-26 ec2-user]# mysqldump -u root -p demo > demo_backup.sql
Enter password:
[root@ip-172-31-16-26 ec2-user]# ls
demo_backup.sql
[root@ip-172-31-16-26 ec2-user]#
```

- Launch MariaDB RDS instance.



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- Migrate database from EC2 to RDS.

```
[root@ip-172-31-16-26 ec2-user]# mysql -h database-1.cajeseymk2i9.us-east-1.rds.amazonaws.com -u admin -p --ssl
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 45
Server version: 11.8.5-MariaDB-log managed by https://aws.amazon.com/rds/

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE demo;
Query OK, 1 row affected (0.004 sec)

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database      |
+-----+
| demo          |
| information_schema |
| innodb         |
| mysql          |
| performance_schema |
| sys            |
+-----+
5 rows in set (0.001 sec)

MariaDB [(none)]> EXIT;
Bye

MariaDB [(none)]> USE demo;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [demo]> SELECT * FROM users;
+----+-----+-----+
| id | name   | email        |
+----+-----+-----+
| 1  | Alice   | alice@test.com |
| 2  | Bob     | bob@test.com  |
| 3  | Charlie | charlie@test.com |
+----+-----+-----+
3 rows in set (0.001 sec)

MariaDB [demo]
```

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- Install MySQL DB on EC2.

```
root@ip-172-31-16-26 ec2-user]# sudo dnf install https://dev.mysql.com/get/mysql84-community-release-el9-1.noarch.rpm -y
Last metadata expiration check: 1:00:31 ago on Thu Jan 29 09:29:14 2026.
mysql84-community-release-el9-1.noarch.rpm
Dependencies resolved.

Package                                         Architecture   Version
Installing:
  mysql84-community-release                      noarch        el9-1

Transaction Summary
=====
Install 1 Package

Total size: 13 k
Installed size: 14 k
Downloading Packages:
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing           :
  Installing          : mysql84-community-release-el9-1.noarch
  Verifying            : mysql84-community-release-el9-1.noarch

Installed:
  mysql84-community-release-el9-1.noarch

Complete!
=====
WARNING:
  A newer release of "Amazon Linux" is available.

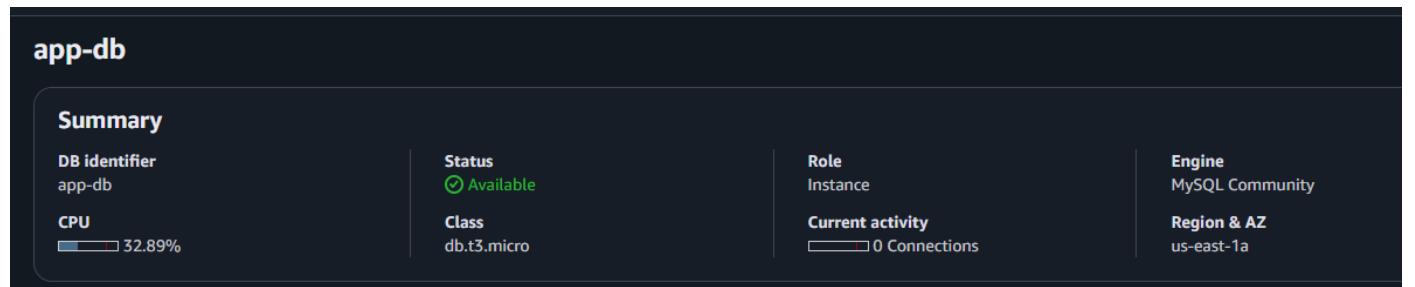
  Available Versions:
    Version 2023.10.20260120:
      Run the following command to upgrade to 2023.10.20260120:
      dnf upgrade --releasever=2023.10.20260120

  Release notes:
    https://docs.aws.amazon.com/linux/al2023/release-notes/relnotes-2023.10.20260120.html
=====

Installed:
  mysql-community-client-8.4.8-1.el9.x86_64      mysql-community-client-plugins-8.4.8-1.el9.x86_64      mysql-community-common-8.4.8-1.el9.x86_64      mysql-co
  mysql-community-libs-8.4.8-1.el9.x86_64

Complete!
[ec2-user@ip-172-168-0-19 ~]$
```

- Launch MySQL RDS image.



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- Configure Multi-AZ.

Configuration	Instance class	Primary storage
DB instance ID app-db	Instance class db.t3.micro	Encryption Enabled
Engine version 8.4.7	vCPU 2	AWS KMS key aws/rds ↗
RDS Extended Support Disabled	RAM 1 GB	Storage type General Purpose SSD (gp2)
DB name -	Availability	Storage 20 GiB
License model General Public License	Master username admin	Provisioned IOPS -
Option groups default:mysql-8-4 ⓘ In sync	Master password *****	Storage throughput -
Amazon Resource Name (ARN) arn:aws:rds:us-east-1:526018540742:db:app-db	IAM DB authentication Not enabled	Storage autoscaling Enabled
Resource ID db-BRNGAOLIHVM2M7A7GPXFWH26FE	Multi-AZ Yes	Maximum storage threshold 1000 GiB
Created time January 29, 2026, 16:19 (UTC+05:30)	Secondary Zone -	Storage file system configuration Current
DB instance parameter group default.mysql8.4 ⓘ In sync		

- Take backup of DB and restore the DB.

Take DB Snapshot

Preferences
To take a DB Snapshot, choose a database and name your DB Snapshot.

Snapshot type
 DB instance
 DB cluster

DB instance
DB Instance identifier. This is the unique key that identifies a DB Instance.

Snapshot name
Identifier for the DB Snapshot.

Snapshot identifier is case insensitive, but stored as all lower-case, as in "mysnapshot". Cannot be null, empty, or blank. Must contain from 1 to 255 alphanumeric characters or hyphens. First character must be a letter. Cannot end with a hyphen.

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db-snap		
Details		
ARN arn:aws:rds:us-east-1:526018540742:snapshot:db-snap	Option group default:mysql-8-4	VPC vpc-06d0c00cc6b058902 ↗
Instance/Cluster Name app-db	Zone us-east-1a	Status Available
Master username admin	KMS key ID 843d2e7e-88e2-4874-96e3-8ff211ba6a92 ↗	Storage type General Purpose SSD (gp2)
DB snapshot name db-snap	Source region N/A	DB storage 20 GiB
Snapshot type manual	Snapshot Creation Time January 29, 2026, 16:35 (UTC+05:30)	IOPS -
DB engine mysql	Original Snapshot Creation Time January 29, 2026, 16:35 (UTC+05:30)	Storage throughput 0
DB engine version 8.4.7	Instance/Cluster Creation January 29, 2026, 16:19 (UTC+05:30)	Port 3306
License model general-public-license		Time zone -
Architecture settings Non-multitenant architecture		Dedicated Log Volume Turned off

Restore snapshot

You are creating a new DB instance or DB cluster from a snapshot. The default VPC security group and parameter group are selected for the new DB instance or cluster.

DB instance settings

DB engine

MySQL

Enable RDS Extended Support Info

Amazon RDS Extended Support is a [paid offering](#). By selecting this option, you consent to being charged for this offering if you are running your database major version past major version in the [RDS for MySQL documentation](#).

Settings

DB snapshot ID

The identifier for the DB snapshot.

db-snap ↗

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.

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 63 alphanumeric characters or hyphens. First character must be a letter.

Instance configuration

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snap-restore

Summary

DB identifier snap-restore	Status Modifying	Role Instance	Engine MySQL Community
CPU <div style="width: 3.76%;"></div>	Class db.m7g.large	Current activity <div style="width: 0%;"></div> 0 Connections	Region & AZ us-east-1f

Connectivity & security **Monitoring** **Logs & events** **Configuration** **Zero-ETL integrations** **Maintenance & backups** **Data migr**

Connect using | [Info](#)

Code snippets
Use when connecting through SDK, APIs, or third-party tools including agents.

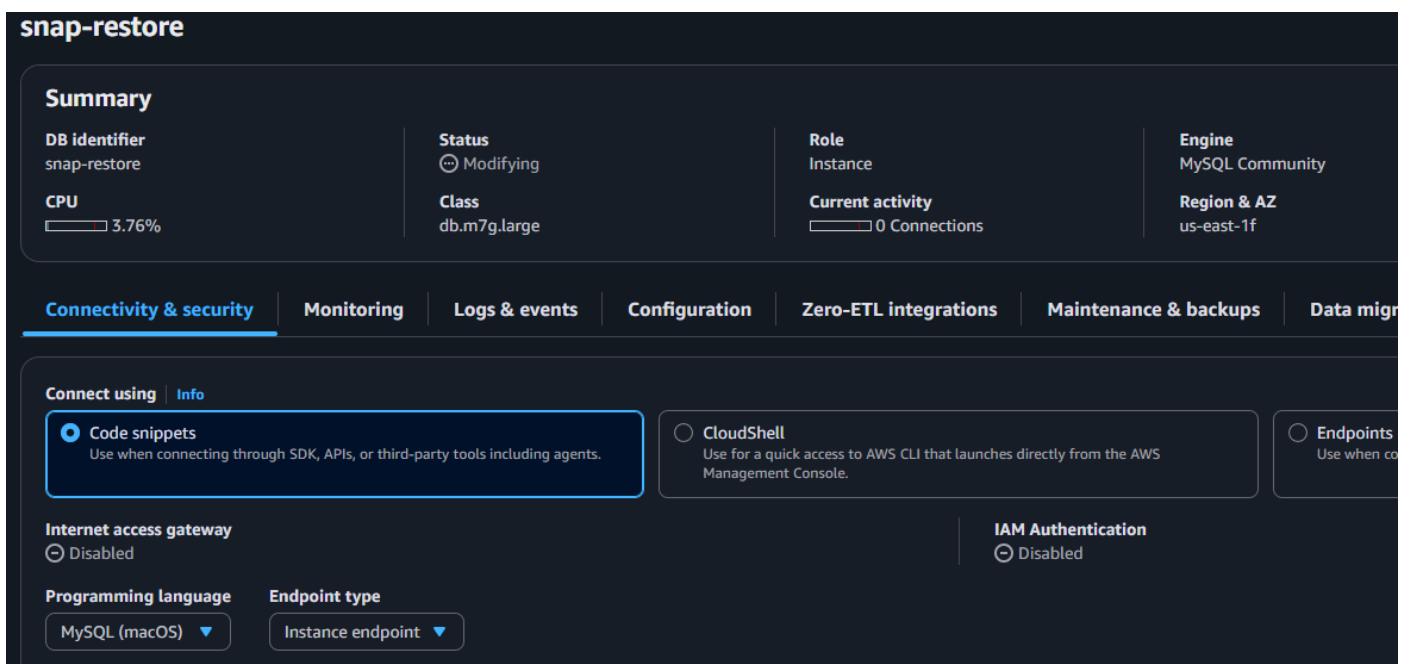
CloudShell
Use for a quick access to AWS CLI that launches directly from the AWS Management Console.

Endpoints
Use when co

Internet access gateway
 Disabled

IAM Authentication
 Disabled

Programming language MySQL (macOS) **Endpoint type** Instance endpoint



- Create a read replica.

mydb-replica

Related

DB identifier	Status	Role	Engine	Region ...	Size	Recom
app-db	Available	Primary	MySQL Co...	us-east-1a	db.t3.micro	
mydb-replica	Modifying...	Replica	MySQL Co...	us-east-1c	db.t3.micro	

Connectivity & security **Monitoring** **Logs & events** **Configuration** **Zero-ETL integrations** **Maintenance & backups**

Connect using | [Info](#)

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