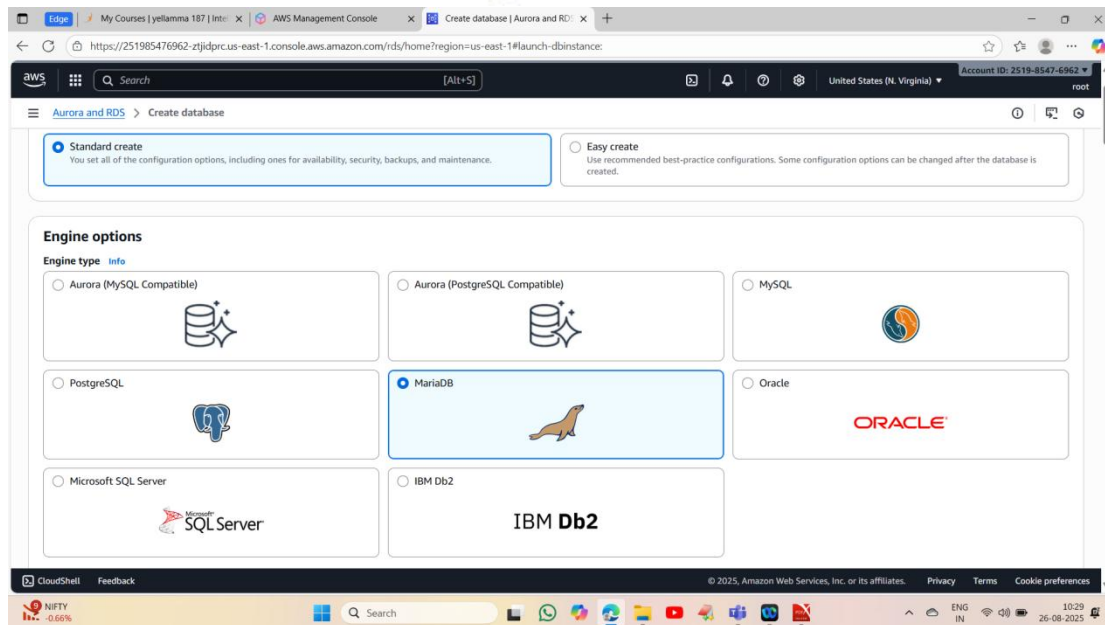## Problem Statement:

You work for XYZ Corporation. Their application requires a SQL service that can store data which can be retrieved if required. Implement a suitable RDS engine for the same.

While migrating, you are asked to perform the following tasks:

1. Create a MariaDB Engine based RDS Database.

2. Connect to the DB using the following ways:
   a. SQL Client for Windows
   b. Linux based EC2 Instance

1. Create a MariaDB Engine based RDS Database.

Edge | My Courses | yellamma 187 | Inte × | AWS Management Console × | Create database | Aurora and RD × | G how to check my machine ip add × | +

https://251985476962-ztjidprc.us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#launch-dbinstance

Account ID: 2519-8547-6962 ▼
root

Search [Alt+S]

United States (N. Virginia) ▼

Aurora and RDS > Create database

Production
Use defaults for high availability and fast, consistent performance.

Dev/Test
This instance is intended for development use outside of a production environment.

Free tier
Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS. Info

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.

    mariadb-demo

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. 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. The first character must be a letter.

Credentials management
You can use AWS Secrets Manager or manage your master user credentials.

○ Managed in AWS Secrets Manager - *most secure*
RDS generates a password for you and manages it throughout its lifecycle using AWS Secrets Manager.

● Self managed
Create your own password or have RDS create a password that you manage.

☐ Auto generate password
Amazon RDS can generate a password for you, or you can specify your own password.

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Ideas

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Public access Info

● Yes
RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.

○ No
RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall) Info
Choose one or more VPC security groups to allow access to your database. Make sure that the security group rules allow the appropriate incoming traffic.

● Choose existing
Choose existing VPC security groups

○ Create new
Create new VPC security group

Existing VPC security groups

    Choose one or more options   ▼

[default ✕]

Availability Zone Info

    No preference   ▼

RDS Proxy
RDS Proxy is a fully managed, highly available database proxy that improves application scalability, resiliency, and security.

☐ Create an RDS Proxy Info
RDS automatically creates an IAM role and a Secrets Manager secret for the proxy. RDS Proxy has additional costs. For more information, see Amazon RDS Proxy pricing 🗗.

Certificate authority – *optional* Info
Using a server certificate provides an extra layer of security by validating that the connection is being made to an Amazon database. It does so by checking the server certificate that is automatically installed on all databases that you provision.

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Mostly cloudy

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AWS Management Console (browser screenshot)

Edge | My Courses | yellamma 187 | Inte... × | AWS Management Console × | Databases | Aurora and RDS | us-... × | M Inbox - yellamma.187@gmail.com × | +

https://251985476962-ztjidprc.us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#databases:

aws | Q ec × | United States (N. Virginia) ▼ | root

Aurora and RDS > Databases

Aurora and RDS <
- Dashboard
- Databases
- Query editor
- Performance insights
- Snapshots
- Exports in Amazon S3
- Automated backups
- Reserved instances
- Proxies

- Subnet groups
- Parameter groups
- Option groups
- Custom engine versions
- Zero-ETL integrations New

- Events
- Event subscriptions

CloudShell   Feedback

⊘ Successfully created database mariadb-demo   View connection details   ×

You can use settings from mariadb-demo to simplify configuration of suggested database add-ons while we finish creating your DB for you.

Databases (1)

Connection details to your database mariadb-demo   ×

This is the only time you can view this password. Copy and save the password for your reference. If you lose the password, you must modify your database to change it. You can use a SQL client application or utility to connect to your database.

Learn about connecting to your database ↗

Master username
admin

Master password
▯ ***********

Endpoint
▯ mariadb-demo.cs9ioosm0qea.us-east-1.rds.amazonaws.com

Close

Modify | Actions ▼ | Create database

DB identifier ... | gine ▼ | Region ... ▼ | Size ▼
mariadb-d... | ariaDB | us-east-1d | db.t3.micro

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HeidiSQL 12.11.0.7065 - Session manager: Unnamed-3   ? ✕

🔍 Filter

Session name ⌄	Host
Unnamed-3 *	127.0....
Unnamed-2	127.0....
Unnamed-1	127.0....
Unnamed	127.0....

🔧 Settings | 🔒 SSH tunnel | 🔧 Advanced | 🔑 SSL | 📊 Statistics

Network type: MariaDB or MySQL (TCP/IP) ⌄

Library: libmariadb.dll ⌄

Hostname / IP: 127.0.0.1

☐ Prompt for credentials
☐ Use Windows authentication

User: admin

Password:

Port: 3306

☐ Compressed client/server protocol

Databases: Separated by semicolon ▼

Comment:

⊕ New ⌄ | 💾 Save | ✖ Delete | Open | Cancel | More ⌄
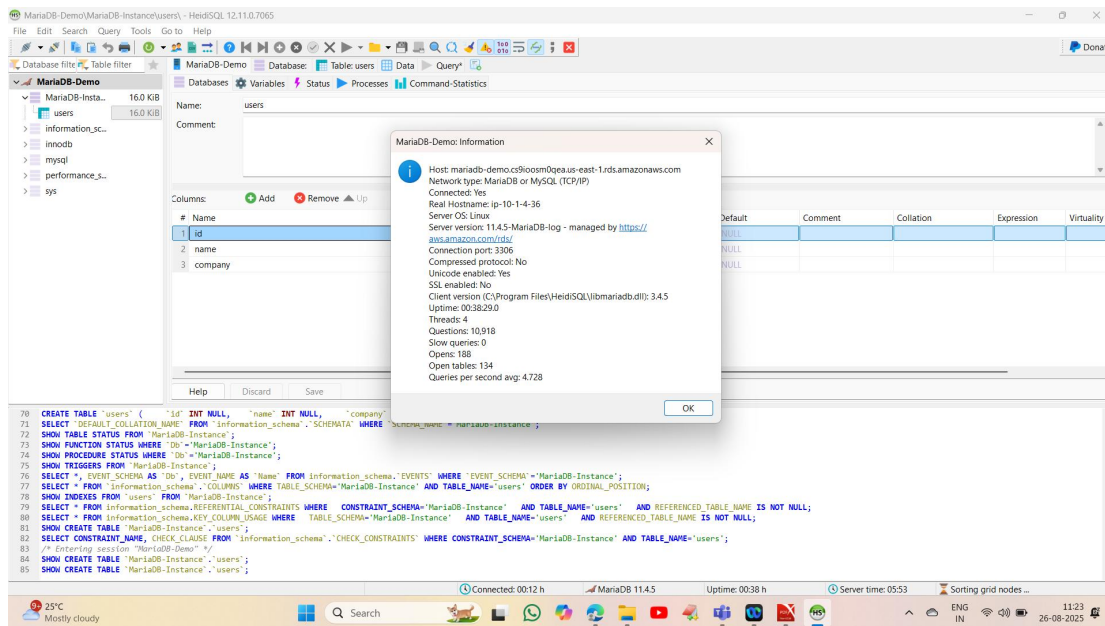
b. Linux based EC2 Instance
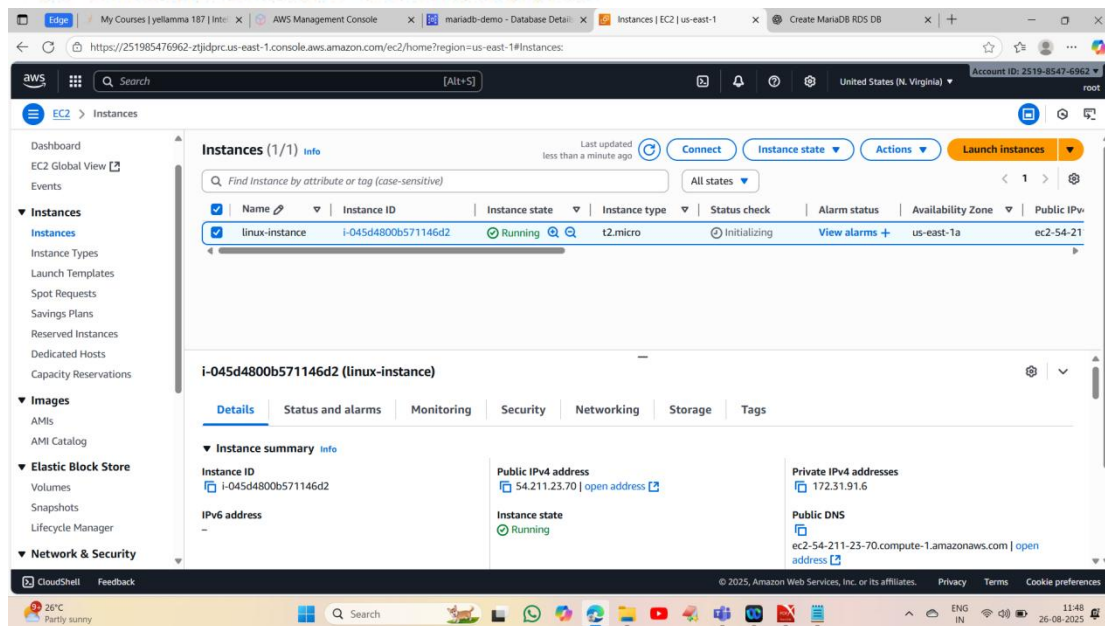
Edge | Databases | Aurora and RDS | us- × | Instances | EC2 | us-east-1 × | EC2 Instance Connect | us-east-1 × | MariaDB install EC2 Linux × | +

https://251985476962-ztjidprc.us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-045d4800b571146d2&osUser=ec2-user&s...

aws   Search   [Alt+S]   United States (N. Virginia) ▼   Account ID: 2519-8547-6962 ▼
root

```
Error: Unable to find a match: mariadb
[ec2-user@ip-172-31-91-6 ~]$ sudo yum install -y mariadb105
Last metadata expiration check: 0:17:41 ago on Tue Aug 26 06:19:54 2025.
Dependencies resolved.
==========================================================================================================================
 Package                       Architecture          Version                        Repository              Size
==========================================================================================================================
Installing:
 mariadb105                    x86_64                3:10.5.29-1.amzn2023.0.1        amazonlinux             1.5 M
Installing dependencies:
 mariadb-connector-c           x86_64                3.3.10-1.amzn2023.0.1           amazonlinux             211 k
 mariadb-connector-c-config    noarch                3.3.10-1.amzn2023.0.1           amazonlinux             9.9 k
 mariadb105-common             x86_64                3:10.5.29-1.amzn2023.0.1        amazonlinux             28 k
 perl-Sys-Hostname             x86_64                1.23-477.amzn2023.0.7           amazonlinux             16 k

Transaction Summary
==========================================================================================================================
Install  5 Packages

Total download size: 1.8 M
Installed size: 19 M
Downloading Packages:
(1/5): mariadb-connector-c-config-3.3.10-1.amzn2023.0.1.noarch.rpm             276 kB/s | 9.9 kB     00:00
(2/5): mariadb-connector-c-3.3.10-1.amzn2023.0.1.x86_64.rpm                    5.2 MB/s | 211 kB     00:00
(3/5): mariadb105-common-10.5.29-1.amzn2023.0.1.x86_64.rpm                     1.5 MB/s |  28 kB     00:00
(4/5): mariadb105-10.5.29-1.amzn2023.0.1.x86_64.rpm                             22 MB/s | 1.5 MB     00:00
(5/5): perl-Sys-Hostname-1.23-477.amzn2023.0.7.x86_64.rpm                      503 kB/s |  16 kB     00:00
--------------------------------------------------------------------------------------------------------------------------
Total                                                                           17 MB/s | 1.8 MB     00:00
```

i-045d4800b571146d2 (linux-instance)

PublicIPs: 54.211.23.70   PrivateIPs: 172.31.91.6

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Edge | Databases | Aurora and RDS | us- × | Instances | EC2 | us-east-1 × | EC2 Instance Connect | us-east-1 × | MariaDB install EC2 Linux × | +

https://251985476962-ztjidprc.us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-045d4800b571146d2&osUser=ec2-user&s...

aws   Search   [Alt+S]   United States (N. Virginia) ▼   Account ID: 2519-8547-6962 ▼
root

```
Installing       : mariadb-connector-c-3.3.10-1.amzn2023.0.1.x86_64                                          2/5
Installing       : mariadb105-common-3:10.5.29-1.amzn2023.0.1.x86_64                                         3/5
Installing       : perl-Sys-Hostname-1.23-477.amzn2023.0.7.x86_64                                            4/5
Installing       : mariadb105-3:10.5.29-1.amzn2023.0.1.x86_64                                                5/5
Running scriptlet: mariadb105-3:10.5.29-1.amzn2023.0.1.x86_64                                                5/5
Verifying        : mariadb-connector-c-3.3.10-1.amzn2023.0.1.x86_64                                          1/5
Verifying        : mariadb-connector-c-config-3.3.10-1.amzn2023.0.1.noarch                                   2/5
Verifying        : mariadb105-3:10.5.29-1.amzn2023.0.1.x86_64                                                3/5
Verifying        : mariadb105-common-3:10.5.29-1.amzn2023.0.1.x86_64                                         4/5
Verifying        : perl-Sys-Hostname-1.23-477.amzn2023.0.7.x86_64                                            5/5

Installed:
  mariadb-connector-c-3.3.10-1.amzn2023.0.1.x86_64         mariadb-connector-c-config-3.3.10-1.amzn2023.0.1.noarch     mariadb105-3:10.5.29-1.amzn2023.0.1.x86_64
  mariadb105-common-3:10.5.29-1.amzn2023.0.1.x86_64        perl-Sys-Hostname-1.23-477.amzn2023.0.7.x86_64

Complete!
[ec2-user@ip-172-31-91-6 ~]$ mysql --version
mysql  Ver 15.1 Distrib 10.5.29-MariaDB, for Linux (x86_64) using  EditLine wrapper
[ec2-user@ip-172-31-91-6 ~]$ mysql -h "mariadb-demo.cs9ioosm0qea.us-east-1.rds.amazonaws.com" -u "admin" -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 151
Server version: 11.4.5-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)]>
```

i-045d4800b571146d2 (linux-instance)

PublicIPs: 54.211.23.70   PrivateIPs: 172.31.91.6

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26°C Partly sunny   Q Search   ENG IN   12:09 26-08-2025