

Laboratorio de desafío

**Crear un servidor de base de datos
e interactuar con ella**

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Objetivos

- **Crear una instancia de RDS**
- **Utilizar Amazon RDS Query Editor para consultar datos.**


Lanzar una instancia de base de datos de Amazon RDS mediante:

1. Motor de base de datos de una base de datos aprovisionada de Amazon Aurora o MySQL

Engine options

Engine type [Info](#)

☒ Aurora (MySQL Compatible)



2. Elegir una plantilla : Dev\Test (Desarrollo\pruebas) o Free Tier (Nivel gratuito)

Templates

Choose a sample template to meet your use case.

☐ Production

Use defaults for high availability and fast, consistent performance.

☒ Dev/Test

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

3. Elegir el tamaño de la instancia

Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

DB instance class [Info](#)

▼ Hide filters

☐ Include previous generation classes

☐ Serverless v2

☐ Memory optimized classes (includes r classes)

☒ Burstable classes (includes t classes)

db.t3.medium

2 vCPUs 4 GiB RAM Network: 2085 Mbps

4. En este caso usaremos la UPC del laboratorio

Virtual private cloud (VPC) [Info](#)

Choose the VPC. The VPC defines the virtual networking environment for this DB cluster.

Lab VPC (vpc-042c8f223475c6d51)

4 Subnets, 2 Availability Zones

Only VPCs with a corresponding DB subnet group are listed.

6.Deshabilitamos la opcion de “Monitoreo mejorado”

Monitoring

☐ Enable Enhanced Monitoring

Enabling Enhanced Monitoring metrics are useful when you want to see how different processes or threads use the CPU.

5. Establecemos el grupo de seguridad que permita que LinuxServer se conecte a la instancia de RDS

Existing VPC security groups

Choose one or more options

Web Security Group X

Availability Zone [Info](#)

No preference

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.

rds-ca-rsa2048-g1 (default)

Expiry: May 24, 2061

If you don't select a certificate authority, RDS chooses one for you.

The background is a solid light purple color. In the four corners, there are abstract, organic shapes in a slightly darker shade of purple, resembling liquid or smoke. The text is centered and consists of two lines.

**Esperare unos minutos a
que se conecte**

-musica de ascensor-

7. Nos conectamos mediante Linux e instalamos el MySQL

```
[ec2-user@ip-10-0-2-145 ~]$ sudo yum install mariadb -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00
Package 1:mariadb-5.5.68-1.amzn2.0.1.x86_64 already installed and latest version
Nothing to do
```

8. Creamos una tabla con el nombre RESTART con las siguientes columnas

```
MySQL [(none)]> create database MIRDS;
Query OK, 1 row affected (0.01 sec)

MySQL [(none)]> use MIRDS
Database changed
MySQL [MIRDS]> create table RESTART (Student_ID INT PRIMARY KEY, Student_Name VARCHAR(30) , Restart_City VARCHAR(30),
Graduation_Date DATETIME);
Query OK, 0 rows affected (0.10 sec)

MySQL [MIRDS]> 
```

9. Insertamos 5 filas

```
MySQL [MIRDS]> insert into RESTART (Student_ID, Student_Name, Restart_City, Graduation_Date) Values (1, 'Sony', 'Montevideo', '2024-07-06 12:00:00'), (2, 'Fernanda', 'Montevideo', '2024-07-06 12:00:00'), (3, 'Esteban', 'Montevideo', '2024-07-06 12:00:00'), (4, 'Gonzalo', 'Flores', '2024-07-06 12:00:00'), (5, 'Armando', 'Montevideo', '2024-07-06 12:00:00');
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

10. Seleccionamos las todas las filas de dicha tabla

```
MySQL [MIRDS]> Select * from RESTART;
+-----+-----+-----+-----+
| Student_ID | Student_Name | Restart_City | Graduation_Date |
+-----+-----+-----+-----+
| 1 | Sony | Montevideo | 2024-07-06 12:00:00 |
| 2 | Fernanda | Montevideo | 2024-07-06 12:00:00 |
| 3 | Esteban | Montevideo | 2024-07-06 12:00:00 |
| 4 | Gonzalo | Flores | 2024-07-06 12:00:00 |
| 5 | Armando | Montevideo | 2024-07-06 12:00:00 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

11. Aquí creamos otra tabla llamada CLOUD_PRACTITIONER con las siguientes columnas

```
MySQL [MIRDS]> create table CLOUD_PRACTITIONER (c_id INT PRIMARY KEY, Student_ID INT, FOREIGN KEY(Student_ID) Referen
Query OK, 0 rows affected (0.10 sec)
```

12. Insertamos 5 filas de muestra en esta tabla

```
MySQL [MIRDS]> INSERT INTO CLOUD_PRACTICIONER VALUES (1, 1, '2024-07-06 12:00:00'), (2, 2, '2024-07-06 12:00:00'), (3, 3, '2024-07-06 12:00:00'), (4, 4, '2024-07-06 12:00:00'), (5, 5, '2024-07-06 12:00:00');
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0

MySQL [MIRDS]> SELECT * FROM CLOUD_PRACTICIONER;
+-----+-----+-----+
| c_id | Student_ID | certification_date |
+-----+-----+-----+
| 1 | 1 | 2024-07-06 12:00:00 |
| 2 | 2 | 2024-07-06 12:00:00 |
| 3 | 3 | 2024-07-06 12:00:00 |
| 4 | 4 | 2024-07-06 12:00:00 |
| 5 | 5 | 2024-07-06 12:00:00 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

13. Realizamos una unión interna entre las dos tablas creadas anteriormente y mostramos student ID, Student Name, Certification Date

```
MySQL [MIRDS]> SELECT RESTART.Student_ID, RESTART.Student_Name, CLOUD_PRACTICIONER.certification_date FROM RESTART JOIN CLOUD_PRACTICIONER ON RESTART.Student_ID = CLOUD_PRACTICIONER.Student_ID;
+-----+-----+-----+
| Student_ID | Student_Name | certification_date |
+-----+-----+-----+
| 1 | Sony | 2024-07-06 12:00:00 |
| 2 | Fernanda | 2024-07-06 12:00:00 |
| 3 | Esteban | 2024-07-06 12:00:00 |
| 4 | Gonzalo | 2024-07-06 12:00:00 |
| 5 | Armando | 2024-07-06 12:00:00 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```




Muchas gracias