

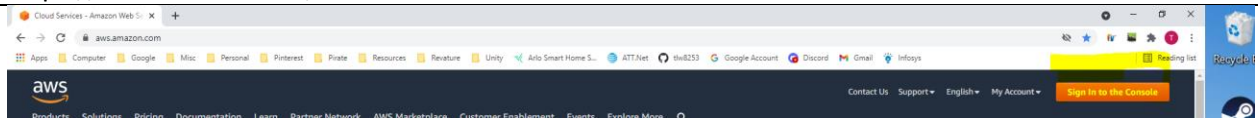
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Create Amazon RDS Database Instance

Login to your AWS account

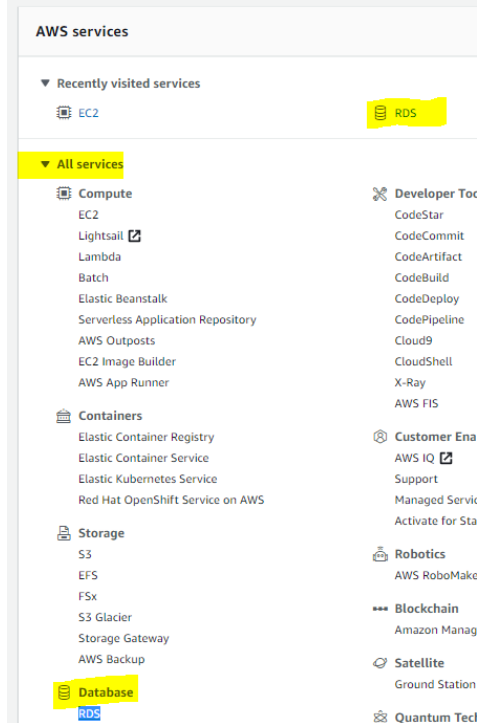
<https://aws.amazon.com/>



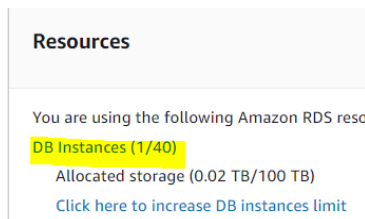
Get to the RDS console

Find the a RDS link

AWS Management Console

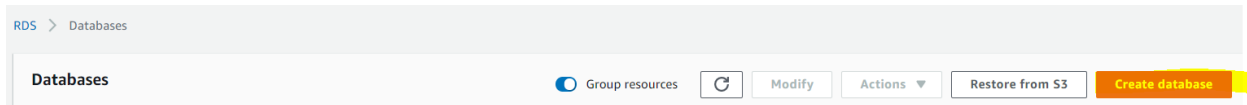


Click “DB Instances...” link under resources



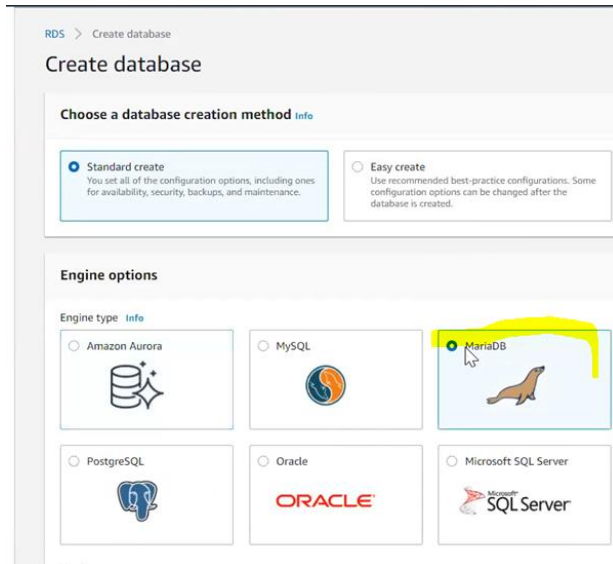
Create a Database Instance

Click “Create database”



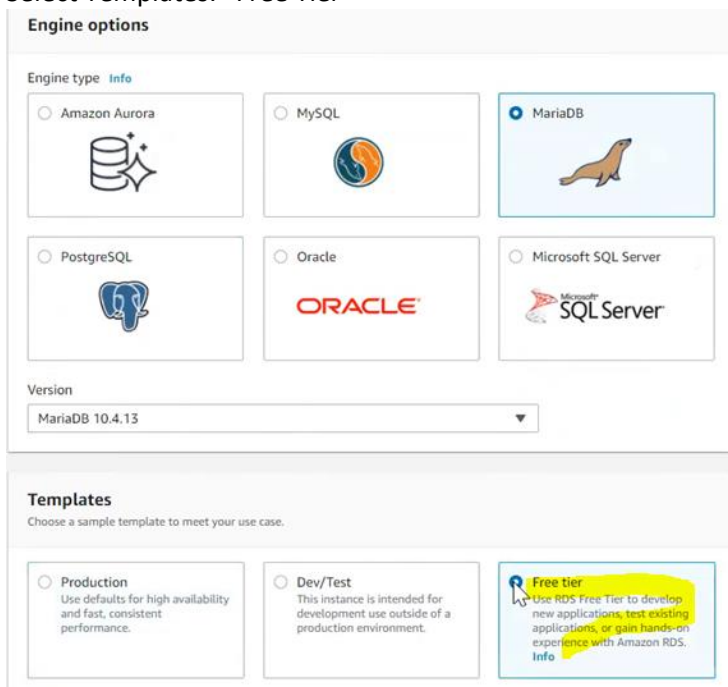
Create database

Select “MariaDB”



Engine options

Select Templates: “Free Tier”



Credentials Settings

Make note of master username: admin

Enter a value for “Master password”

Enter same value for “Confirm password”

Make sure to save the username and the password for later use.

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-3

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

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

Master password [Info](#)

Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), ' (single quote), " (double quote) and @ (at sign).

Confirm password [Info](#)

DB Instance Class

Free Tier only offers db.t2.micro class

DB instance class

DB instance class [Info](#)
Choose a DB instance class that meets your processing power and memory requirements. The DB instance class options below are limited to those supported by the engine you selected above.

☐ Standard classes (includes m classes)
☐ Memory optimized classes (includes r and x classes)
☒ Burstable classes (includes t classes)

db.t2.micro
1 vCPUs 1 GiB RAM Not EBS Optimized

☐ Include previous generation classes

Storage

Uncheck “Enable storage autoscaling”

Storage

Storage type [Info](#)
General Purpose (SSD)

Allocated storage
20 GiB
(Minimum: 20 GiB, Maximum: 16,384 GiB) Higher allocated storage **may improve** IOPS performance.

Storage autoscaling [Info](#)
☒ Enable storage autoscaling
Provides dynamic scaling support for your database's storage based on your application's needs. Enabling this feature will allow the storage to increase once the specified threshold is exceeded.

Maximum storage threshold [Info](#)
Charges will apply when your database autoscales to the specified threshold.
1000 GiB
(Minimum: 21 GiB, Maximum: 16,384 GiB)

Storage

Storage type [Info](#)
General Purpose (SSD)

Allocated storage
20 GiB
(Minimum: 20 GiB, Maximum: 16,384 GiB) Higher allocated storage **may improve** IOPS performance.

Storage autoscaling [Info](#)
☐ Enable storage autoscaling
Provides dynamic scaling support for your database's storage based on your application's needs. Enabling this feature will allow the storage to increase once the specified threshold is exceeded.

Connectivity

Select “Public access” “Yes” radio button

Connectivity

Virtual private cloud (VPC) [Info](#)
VPC that defines the virtual networking environment for this DB instance.

Default VPC (vpc-ac0f30c4) ▼

Only VPCs with a corresponding DB subnet group are listed.

ⓘ After a database is created, you can't change the VPC selection.

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

default ▼

Public access [Info](#)

☒ Yes
Amazon EC2 instances and devices outside the VPC can connect to your database. Choose one or more VPC security groups that specify which EC2 instances and devices inside the VPC can connect to the database.

☐ No
RDS will not assign a public IP address to the database. Only Amazon EC2 instances and devices inside the VPC can connect to your database.

VPC security groups

VPC security group

Select “Create new” radio button

Enter “New VPC security group name” <enter-a-name>

VPC security group
Choose a VPC security group to allow access to your database. Ensure that the security group rules allow the appropriate incoming traffic.

☐ Choose existing
Choose existing VPC security groups

☒ Create new
Create new VPC security group

New VPC security group name

210712-jwc

Availability Zone [Info](#)

No preference ▼

► Additional configuration

Select dropdown arrow for “Additional configuration” in Connectivity area
Verify port 3306

▼ Additional configuration

Database port [Info](#)
TCP/IP port that the database will use for application connections.

3306

Additional configuration

Select the drop down arrow to show the additional database options

► Additional configuration
Database options, backup enabled, backtrack disabled, Enhanced Monitoring disabled, maintenance, CloudWatch Logs, delete protection disabled.

Enter “Initial database name”

Make sure to make note of the database name for later use.

Uncheck “Enable automated backups”

▼ Additional configuration
Database options, backup disabled, backtrack disabled, Enhanced Monitoring disabled, maintenance, CloudWatch Logs, delete protection disabled.

Database options
Initial database name [Info](#)

If you do not specify a database name, Amazon RDS does not create a database.
DB parameter group [Info](#)

Option group [Info](#)

Backup
☐ **Enable automated backups**
Creates a point-in-time snapshot of your database.

Accept the rest of section’s defaults

☐ 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

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

Maintenance
Auto minor version upgrade [Info](#)
☒ **Enable auto minor version upgrade**
Enabling auto minor version upgrade will automatically upgrade to new minor versions as they are released. The automatic upgrades occur during the maintenance window for the database.

Maintenance window [Info](#)
Select the period you want pending modifications or maintenance applied to the database by Amazon RDS.
☐ Select window
☒ No preference

Deletion protection
☐ **Enable deletion protection**
Protects the database from being deleted accidentally. While this option is enabled, you can't delete the database.

Create the database

Scroll down the page

Click "Create database"

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 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 Database Status

Redirected to the RDS>Databases page

Review the status

Creating database database-3
Your database might take a few minutes to launch.

RDS > Databases

Databases

☒ Group resources Modify Actions

<input type="checkbox"/>	DB Identifier	Role	Engine	Region & AZ	Size	Status	CPU	Current ac
<input type="radio"/>	database-1	Instance	MariaDB	us-east-2b	db.t2.micro	Stopped	<div>1.86%</div>	
<input type="radio"/>	database-2	Instance	PostgreSQL	us-east-2c	db.t2.micro	Stopped	<div>5.00%</div>	
<input type="radio"/>	database-3	Instance	MariaDB	-	db.t2.micro	Creating		
<input type="radio"/>	training-ohio	Instance	PostgreSQL	us-east-2a	db.t2.micro	Stopped	<div>2.33%</div>	

Click on database link once it is available

<input type="radio"/>	database-3	Instance	MariaDB	us-east-2b	db.t2.micro	Available	-
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Review and additional settings

RDS > Databases > database-3

database-3

Summary

DB identifier database-3	CPU ~	Status Available	Class db.t2.micro
Role Instance	Current activity 0 Connections	Engine MariaDB	Region & AZ us-east-2b

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Connectivity & security

Endpoint & port

Endpoint
database-3.clwebyd8kml.us-east-2.rds.amazonaws.com

Port
3306

Networking

Availability zone
us-east-2b

VPC
vpc-ac0f30c4

Subnet group
default

Subnets
subnet-31d4f359
subnet-42df1b0e
subnet-2a178a50

Security

VPC security groups
210712-jwa (sg-0931a244cd948b8e (active))

Public accessibility
Yes

Certificate authority
rds-ca-2019

Certificate authority date
August 22, 2024, 12:08 (UTC+12:0)

DBeaver connection

Copy endpoint to create DBeaver connection on your local machine

Connectivity & security

Endpoint & port

Endpoint
database-3.clwebyd8kml.us-east-2.rds.amazonaws.com

Port
3306

Connectivity & security

Click the link under “VPC security groups”

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Connectivity & security

Endpoint & port

Endpoint
database-3.clwebyd8kml.us-east-2.rds.amazonaws.com

Port
3306

Networking

Availability zone
us-east-2b

VPC
vpc-ac0f30c4

Subnet group
default

Subnets
subnet-31d4f359
subnet-42df1b0e
subnet-2a178a50

Security

VPC security groups
210712-jwa (sg-0931a244cd948b8e (active))

Public accessibility
Yes

Certificate authority
rds-ca-2019

Certificate authority date
August 22, 2024, 12:08 (UTC+12:08)

Security Groups

Click “Inbound rules” tab

Security Groups (1/1) Info

Filter security groups

search: sg-0931a244cd948b850 X Clear filters

Name	Security group ID	Security group name	VPC ID	Description	Owner
-	sg-0931a244cd948b850	210712-jwa	vpc-ac0f30c4	Created by RDS manag...	168116352293

sg-0931a244cd948b850 - 210712-jwa

Details Inbound rules Outbound rules Tags

Details

Security group name: 210712-jwa
Security group ID: sg-0931a244cd948b850
Description: Created by RDS management console
Owner: 168116352293
Inbound rules count: 1 Permission entry
Outbound rules count: 1 Permission entry

Click “Edit inbound rules”

sg-0931a244cd948b850 - 210712-jwa

Details Inbound rules Outbound rules Tags

Inbound rules (1/1)

Filter security group rules

Manage tags Edit inbound rules

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
-	sgr-0419a7c678a92b5...	IPv4	MySQL/Aurora	TCP	3306	136.49.37.214/32	-

Edit inbound rules

Click “Delete” button

Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID: sgr-0419a7c678a92b546

Type: MySQL/Aurora Protocol: TCP Port range: 3306 Source: Custom Description - optional: 136.49.37.214/32

Add rule Delete

Cancel Preview changes Save rules

Create new rule for My IP

Select Type: "Custom TCP"

Enter Port range "3306"

Select Source "My IP"

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info
-	Custom TCP	TCP	3306	My IP

136.49.37.214/32 X

Add rule

The setting above will only allow connect from one IP source, your machine. This is not practical and does not work if you have a Private VPN install that changes your outside world IP periodically. Instead I create a rule for Anywhere IP.

Create new rule for Anywhere

Select Type: "Custom TCP"

Enter Port range "3306"

Select Source "Anywhere-IPv4"

Click "Add rule"

cloud provider market share - G... x | 18819.jpeg (1200x1200) x | RDS Management Console x | EC2 Management Console x | What Is My IP? Quickly See My IP... x | +

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#ModifyInboundSecurityGroupRules:securityGroupId=sg-0931a244cd948b850

aws Services Search for services, features, marketplace products, and docs [Alt+S]

EC2 > Security Groups > sg-0931a244cd948b850 - 210712-jwa > Edit inbound rules

Edit inbound rules [Info](#)

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules [Info](#)

Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info
-	Custom TCP	TCP	3306	Anywhere-IPv4

0.0.0.0/0 X

Add rule

This concludes creating an AWS RDS Database instance.

Next setup a MariaDB connection.

Connect to the AWS RDS Database Instance

MariaDB Connection

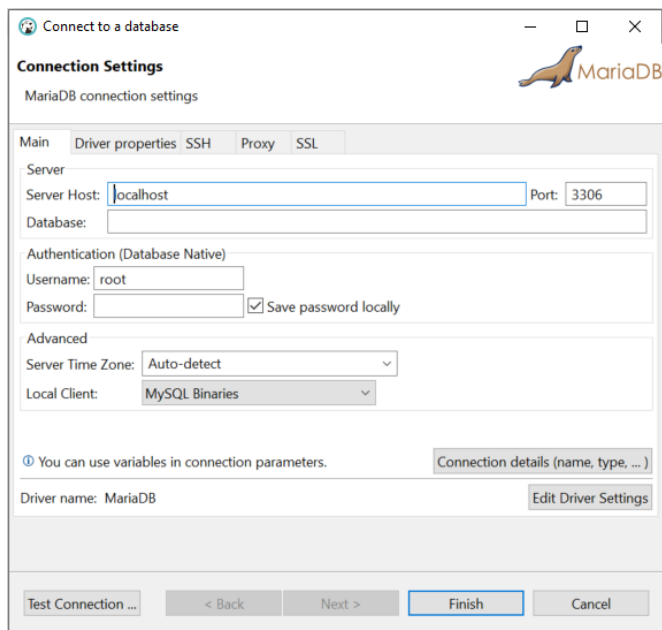
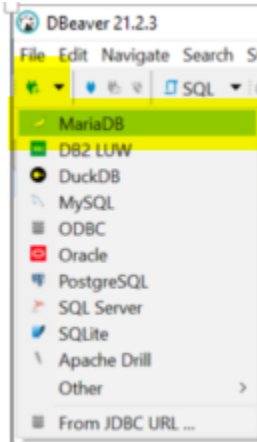
On your local Machine

Open DBeaver

Create a connection

Select the dropdown arrow

Select MariaDB



Update the Connection Settings with the AWS information

Enter the AWS values capture in setting up the database instance

Enter Connection endpoint as Server Host

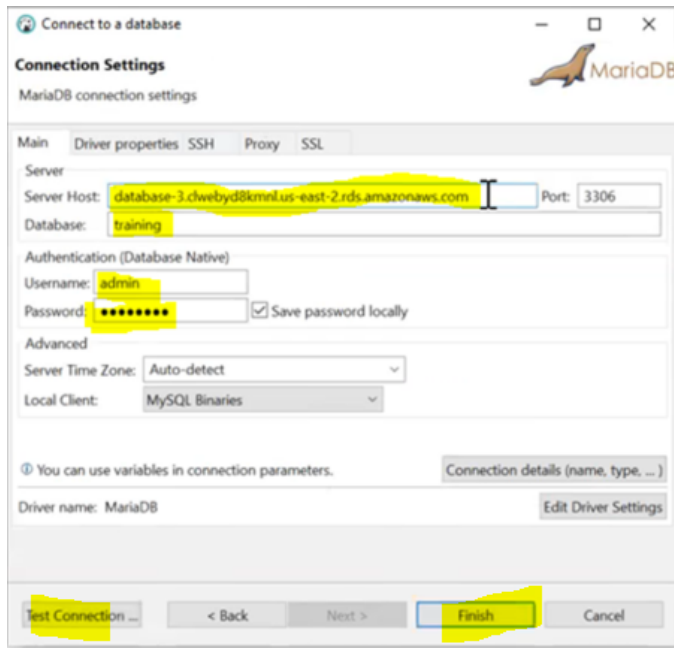
Database name from AWS

Username from AWS admin

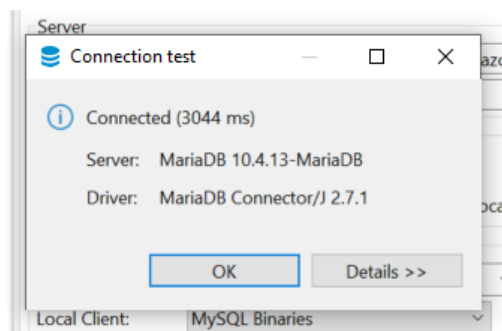
Password from AWS

Click "Test Connection"

Click "Finish"



If all goes well you will be connected to the database instance on AWS



This ends Connect to the AWS RDS Database Instance