
Set up an Amazon RDS MySQL Instance

Amazon Relational Database Service (Amazon RDS) is a service that makes setting up relational databases (such as MySQL) in the cloud really easy.

1. If you haven't already, create an AWS account.
2. Sign in to your [AWS Console](#).
3. Go to Services > RDS
4. Pick "Create a database"
5. Click on "Standard create". Some of the default options for the "Easy create" make it more difficult to connect to the database later on. This is because AWS worries a lot about security. In our little project where we are still learning the basics and we do not use confidential data, this is less of a concern.
6. Click on "MySQL" and select the latest MySQL version (probably 8.0.XX).
7. *****IMPORTANT!!!!***** Pick the "**Free tier**" template. Your database will be small and slow, but free!
8. Give a name to your instance. Something like "wbs-project3-db" will do the trick.
9. Choose an username and password for the "master user". Instances can have multiple users, but there is always a "master", usually called "admin", with all the permissions. Make sure to write down the password you pick!
10. The DB instance class is the hardware that will support your instance, and should be fixed if you picked the "Free tier" template above. Stay with the default, that will probably be a "micro" instance.
11. You can leave all the default values for the "Storage" settings.
12. Leave the default setting for VPC.
13. Allow Public access to your instance, and choose to create a new VPC security group with a name you can recognize. Then leave the default values for Availability Zone and Database port:

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 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

wbs-project-security-group

Availability Zone [Info](#)

No preference ▼

▼ Additional configuration

Database port [Info](#)

TCP/IP port that the database will use for application connections.

3306

14. In the "Database authentication" settings, leave the default ("Password authentication")
15. Ignore the "Additional configuration".

16. Click on “Create database” and wait a few minutes until the “Status” of the database switches from “Creating” to “Active”.

Connect to your Amazon RDS MySQL Instance

In order to connect to your instance you need to know its host address or “endpoint”. From AWS Console > RDS > Databases, click on your database. Here, you can see an overview of your instance’s settings and status, as well as monitor its activity. For now, just copy the endpoint, which you will find under the tab “Connectivity & security”:

The screenshot shows the AWS Management Console interface for an Amazon RDS instance named 'wbs-2'. The left sidebar contains navigation links for various RDS features. The main content area displays the instance details under the 'wbs-2' header. The 'Summary' section shows the instance is 'Available' with a status icon. Below this, the 'Connectivity & security' tab is active, showing the 'Endpoint & port' section where the endpoint 'wbs-2.c4lxnvpfnor4.us-east-2.rds.amazonaws.com' is highlighted with a red box. Other sections like 'Networking' and 'Security' are also visible.

Summary			
DB identifier wbs-2	CPU -	Status Available	Class db.t2.micro
Role Instance	Current activity	Engine MySQL Community	Region & AZ us-east-2b

Connectivity & security		
Endpoint & port Endpoint wbs-2.c4lxnvpfnor4.us-east-2.rds.amazonaws.com Port 3306	Networking Availability zone us-east-2b VPC vpc-d3458cb8 Subnet group default-vpc-d3458cb8 Subnets subnet-814769fb subnet-40bc4c2b subnet-dfb32593	Security VPC security groups wbs-2-group (sg-016e8cfbbe4750a7e) (active) Public accessibility Yes Certificate authority rds-ca-2019 Certificate authority date August 22, 2024, 07:08 (UTC±7:08)

Now open MySQL workbench. Instead of connecting to your local “root” instance, we will create a new connection:

1. From MySQL home page, click on the little “+” icon. A “Setup New Connection” wizard will pop up.
2. Connection name: you can write anything here, it is just an identifier for you to recognize this connection to your AWS instance.
3. Hostname: paste the instance endpoint you copied from your AWS Console.
4. Port: it’s always going to be 3306
5. Username: unless you changed it when creating the database, it’s going to be “admin”.
6. Password: click on “Store in Keychain” and then enter the password you set when creating the AWS instance.

You can leave all the other fields with its default values and click on OK.

Allow all traffic to your database

1. On your AWS console, go to RDS > Databases.
2. Click on the instance you have created.
3. Under the “Connectivity & security” tab, click on the VPC security group.
4. Click on the “Security group ID” for that group.
5. Click on “Edit inbound rules”

- Click on “Add rule”
- Fill the fields as shown in the screenshot below.

EC2 > Security Groups > sg-0177acde800df8d1b - wbs-testing > 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	Description - optional Info	
sgr-0e26892b609383a9b	MySQL/Aurora	TCP	3306	Custom	<input type="text" value="79.145.111.72/32"/>	<input type="text" value=""/> <input type="button" value="Delete"/>
sgr-0d81ce3248c6f45a2	All traffic	All	All	Custom	<input type="text" value="0.0.0.0"/>	<input type="text" value=""/> <input type="button" value="Delete"/>

- Click on “Save rules”.