

MySQL Workbench Installation & RDS Connection

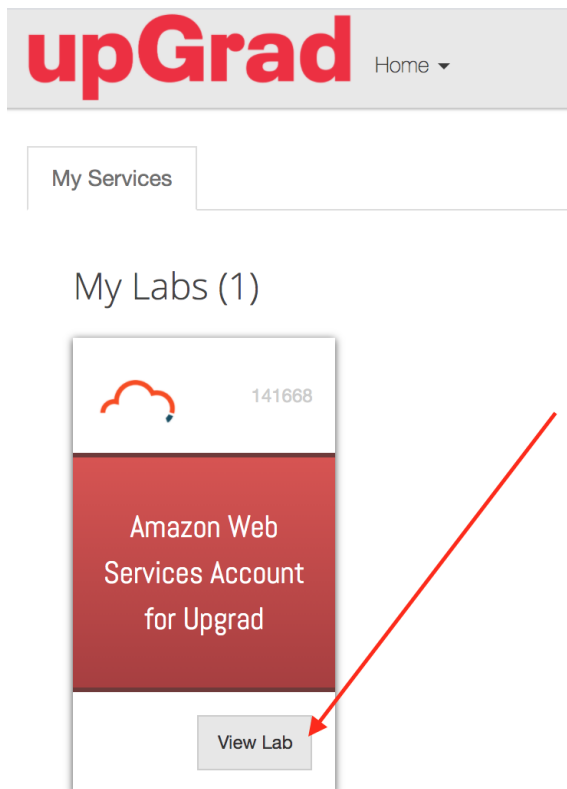
<https://dev.mysql.com/doc/workbench/en/wb-installing.html>

AWS RDS

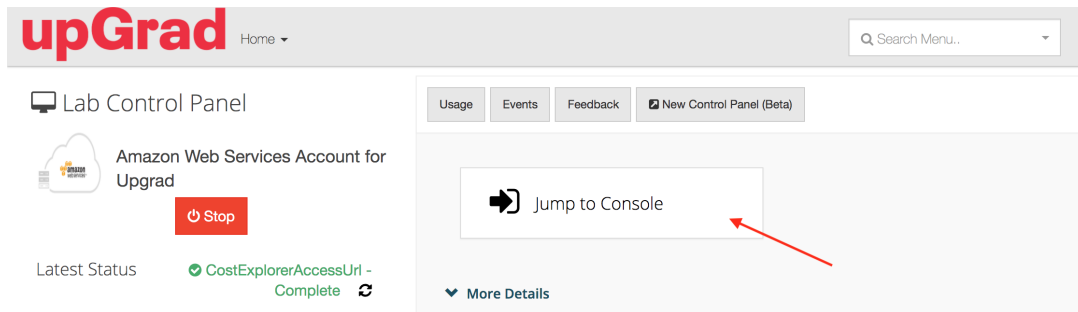
Important Note: AWS RDS is a costlier service, hence to avoid unnecessary deduction of your AWS budget please delete the RDS instance once you are done with your practice. Please don't keep your RDS instance running if you're not using it. AWS will charge you some money even if you have paused it. The steps to delete the instance are provided below.

RDS DB Instance Set up

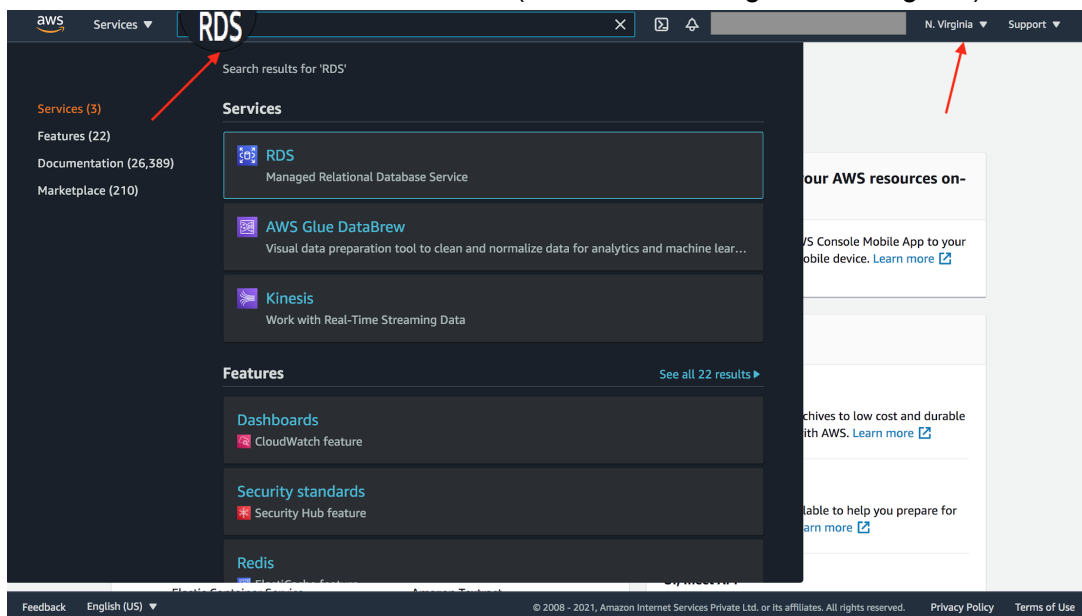
1. Login to your NevuPro account
2. View Lab



3. Jump to Console



4. Search for RDS in the AWS search bar (Make sure the region is N.Virginia)



5. Click on 'Create Database' (which will create a DB Instance) in RDS

The screenshot shows the Amazon RDS console. In the left-hand navigation pane, the 'Databases' link is highlighted with a red arrow. The main content area displays a 'Create database' section with a red arrow pointing to the 'Create database' button. The console header includes the AWS logo, 'Services' dropdown, a search bar, and a notification bell.

6. Follow the steps to create a DB Instance:

a. Select 'Standard Create' and 'MySQL'

The screenshot shows the 'Create database' wizard. Under 'Choose a database creation method', the 'Standard create' option is selected with a radio button and highlighted by a red arrow. Below this, under 'Engine options', the 'MySQL' engine type is selected with a radio button and highlighted by a red arrow. The 'Easy create' option and 'Amazon Aurora'/'MariaDB' engine types are also visible but not selected.

b. Choose "Free Tier" and pick a database name

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.

☒ **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.

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens (1 to 15 for SQL Server). First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

- c. Set credentials (choose a password of your choice and **remember it**)

▼ **Credentials Settings**

Master username [Info](#)
 Type a login ID for the master user of your DB instance.

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) or @ (at sign).

Confirm password [Info](#)

- d. Next, you will need to select the DB Instance class. Select the third option, which is **Burstable classes (includes t classes)** and then from the dropdown scroll and select the **db.t2.micro** instance.

DB instance class

DB instance class [Info](#)

- ☐ 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

- e. Skip all the configuration after it, move to Connectivity settings and give public access

Connectivity

Virtual private cloud (VPC) [Info](#)
VPC that defines the virtual networking environment for this DB instance.
Default VPC (vpc-de68b1a3)
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-vpc-de68b1a3

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

- f. Move to the end and create the database.

► **Additional configuration**

Database options, backup enabled, backtrack disabled, Enhanced Monitoring disabled, maintenance, CloudWatch Logs, delete protection disabled

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**

RDS DB Instance Security Configuration

Once your database is created and available, you will be able to see it in the list of databases on RDS

RDS > Databases

Databases

☒ Group resources Refresh Modify Actions Restore from S3 Create database

DB identifier	Role	Engine	Region & AZ	Size	Status	CPU
database-1	Instance	MySQL Community	us-east-1f	db.t2.micro	Available	

After the database is created, set up security configuration. To do that, click on your database, and you will see, as shown in the image below.

RDS > Databases > database-1

database-1

Modify Actions

Summary

DB identifier database-1	CPU 6.67%	Status Available	Class db.t2.micro
Role Instance	Current activity 0 Connections	Engine MySQL Community	Region & AZ us-east-1f

Connectivity & security Monitoring Logs & events Configuration Maintenance & backups Tags

Connectivity & security

Endpoint & port

Endpoint
database-1.cg1tt9azghj.us-east-1.rds.amazonaws.com

Networking

Availability zone
us-east-1f

Security

VPC security groups
default (sg-6ebae359)
(active)

Click on the default security link and select inbound rules

Security Groups (1/1) Info

Filter security groups

search: sg-6ebae359 Clear filters

<input checked="" type="checkbox"/>	Name	Security group ID	Security group name	VPC ID	Description	Owner
<input checked="" type="checkbox"/>	-	sg-6ebae359	default	vpc-de68b1a3	default VPC security gr...	0646

sg-6ebae359 - default

Details Inbound rules Outbound rules Tags

Details

Security group name default	Security group ID sg-6ebae359	Description default VPC security group	VPC ID vpc-de68b1a3
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Add a new inbound rule to allow traffic from your computer. Set Custom TCP, port 3306, and MySQL and save

Edit inbound rules [Info](#)

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

Type Info	Protocol Info	Port range Info	Source Info	Description - optional Info	
All traffic ▼	All	All	Custom ▼ <input type="text" value="Q"/>	<input type="text"/>	<button>Delete</button>
			<div>sg-6ebae359 ✕</div>		
Custom TCP ▼	TCP	3306	My IP ▼ <input type="text" value="Q"/>	<input type="text"/>	<button>Delete</button>
			<div>103.133.121.40/32 ✕</div>		
<button>Add rule</button>					

NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.

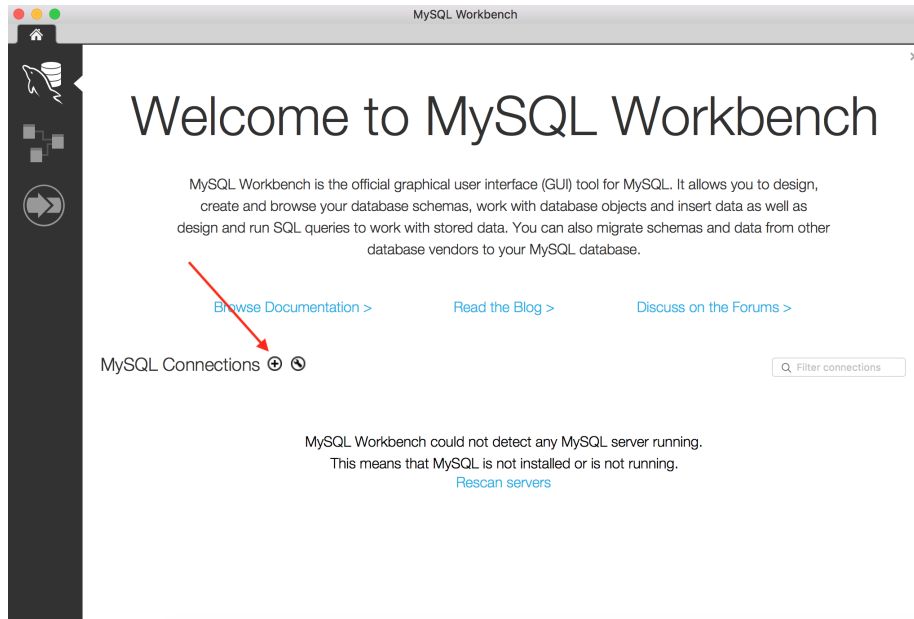
Cancel Preview changes Save rules

This will allow connection to your DB instance on RDS from your system's IP Address.

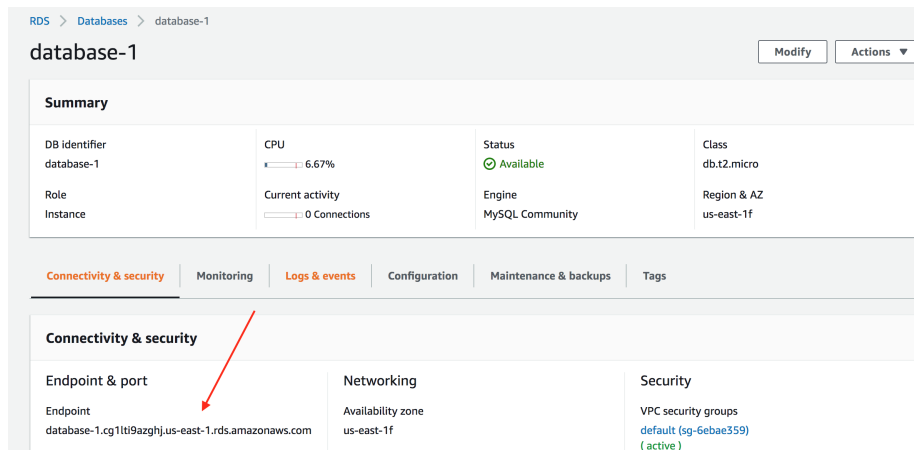
The public IP address is dynamic hence subject to change as per your ISP. To avoid any confusion, we recommend you to set the MyIP every time you want to login to the RDS server.

Connect RDS DB instance with MySQL Workbench

Open MySQL Workbench and create a new Connection.



Add RDS endpoint details which you can get from RDS DB instance details



Set connection name, hostname, the username (admin), password that you had set on RDS, and test connection. If the connection is successful, click ok.

The screenshot shows a 'Setup New Connection' dialog box with the following fields and controls:

- Connection Name:** A text field containing 'sample'. A red arrow points to this field.
- Connection Method:** A dropdown menu showing 'Standard (TCP/IP)'. A red arrow points to this dropdown.
- Parameters Tab:** The 'Parameters' tab is selected, with 'SSL' and 'Advanced' tabs also visible.
- Hostname:** A text field containing 'sampleendpoint'. A red arrow points to this field.
- Port:** A text field containing '3306'.
- Username:** A text field containing 'admin'. A red arrow points to this field.
- Password:** A section with a text field, a 'Store in Keychain ...' button, and a 'Clear' button. A red arrow points to this section.
- Default Schema:** An empty text field. A red arrow points to this field.
- Buttons:** At the bottom, there are four buttons: 'Configure Server Management...', 'Test Connection', 'Cancel', and 'OK'. Red arrows point to the 'Test Connection' and 'OK' buttons.



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