Amazon RDS
Create and connect to DB instance

Topic : Relational Database Service (RDS)

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Training Content
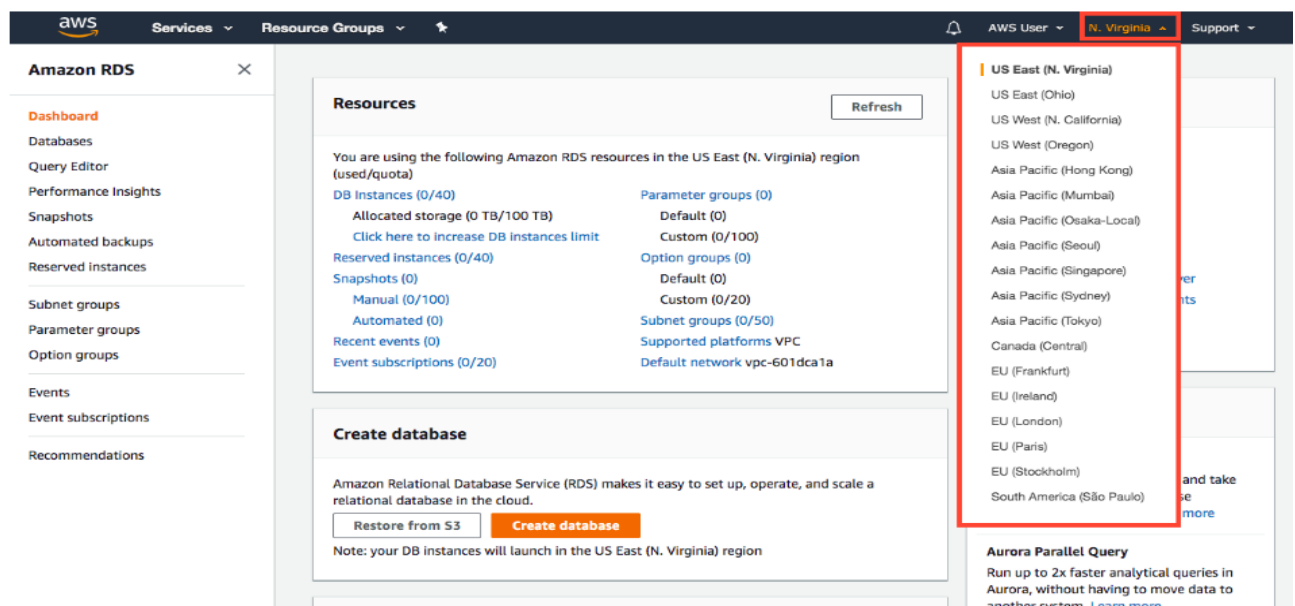
Tutorial

1 Introduction

In this tutorial, you will learn how to create an environment to run your MySQL database (we call this environment an instance) and connect to the database. We will do this using Amazon Relational Database Service (Amazon RDS) and everything done in this tutorial is free-tier eligible.

1.1 Create a MySQL DB Instance

In this step, use Amazon RDS to create a MySQL DB Instance with db.t2.micro DB instance class, 20 GB of storage, and automated backups enabled with a retention period of one day.

In the top right corner of the Amazon RDS console, select the Region in which you want to create the DB instance.

Note: AWS Cloud resources are housed in highly available data center facilities in different areas of the world. Each Region contains multiple distinct locations called Availability Zones. You have the ability to choose which Region to host your Amazon RDS activity in.
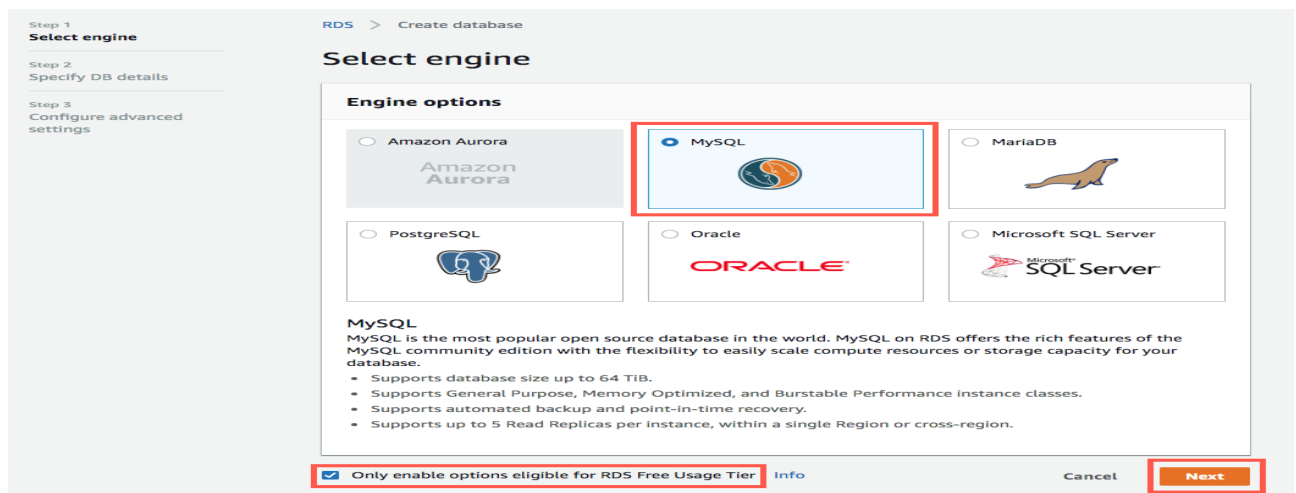

Figure 1: Amazon RDS Dashboard

In the Create database section, choose Create database.
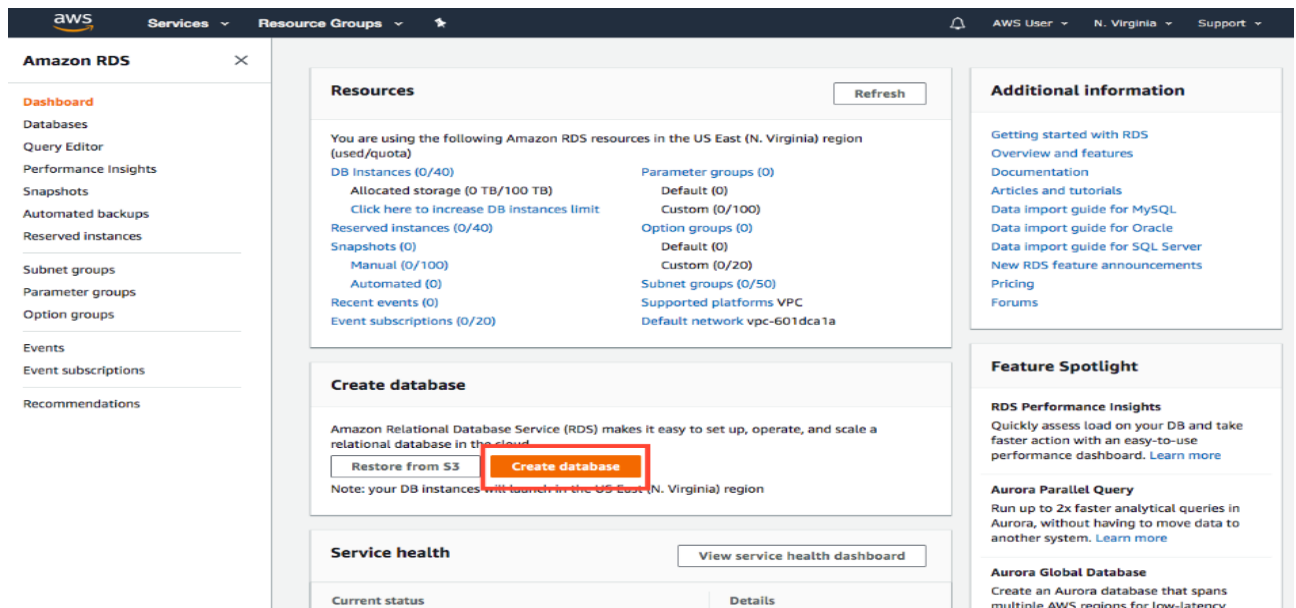
Figure 2: Create RDS Database instance

You now have options to select your engine. For this tutorial, click the MySQL icon, choose Only enable options eligible for RDS Free Usage Tier, and then click Next.

Figure 3: Select DB engine (MySQL, MariaDB, etc)

You will now configure your DB instance. The list below shows the example settings you can use for this tutorial:

Instance specifications:

License model: Select the default general-public-license to use the general license agreement for MySQL. MySQL has only one license model.

DB engine version: Select the default version of MySQL. Note that Amazon RDS supports multiple versions of MySQL in some Regions.

DB instance class: Select db.t2.micro — 1vCPU, 1 GIB RAM. This equates to 1 GB memory and 1 vCPU. To see a list of supported instance classes, see Amazon RDS Product Details.

Multi-AZ deployment: Note that you will have to pay for Multi-AZ deployment. Using a Multi-AZ deployment will automatically provision and maintain a synchronous standby replica in a different Availability Zone. For more information, see High Availability Deployment.

Storage type: Select General Purpose (SSD). For more information about storage, see Storage for Amazon RDS.

Allocated storage: Select the default of 20 to allocate 20 GB of storage for your database. You can scale up to a maximum of 16 TB with Amazon RDS for MySQL.

Enable storage autoscaling: If your workload is cyclical or unpredictable, you would enable storage autoscaling to enable RDS to automatically scale up your storage when needed. This option does not apply to this tutorial.

Settings:

DB instance identifier: Type a name for the DB instance that is unique for your account in the Region that you selected. For this tutorial, we will name it rds-mysql-10minTutorial.

Master username: Type a username that you will use to log in to your DB instance. We will use masterUsername in this example.

Master password: Type a password that contains from 8 to 41 printable ASCII characters (excluding /,", and @) for your master user password. Confirm password: Retype your password

Allocated Storage: Type 5 to allocate 5 GB of storage for your database. For more information about storage allocation, see Amazon Relational Database Service Features. (switch ordering, its after storage type)

Click Next.

Figure 4: Instance specifications

Your DB Instance is now being created. Click View Your DB Instances.

Note: Depending on the DB instance class and storage allocated, it could take several minutes for the new DB instance to become available.

The new DB instance appears in the list of DB instances on the RDS console. The DB instance will have a status of creating until the DB instance is created and ready for use. When the state changes to available, you can connect to a database on the DB instance.

Feel free to move on to the next step as you wait for the DB instance to become available.
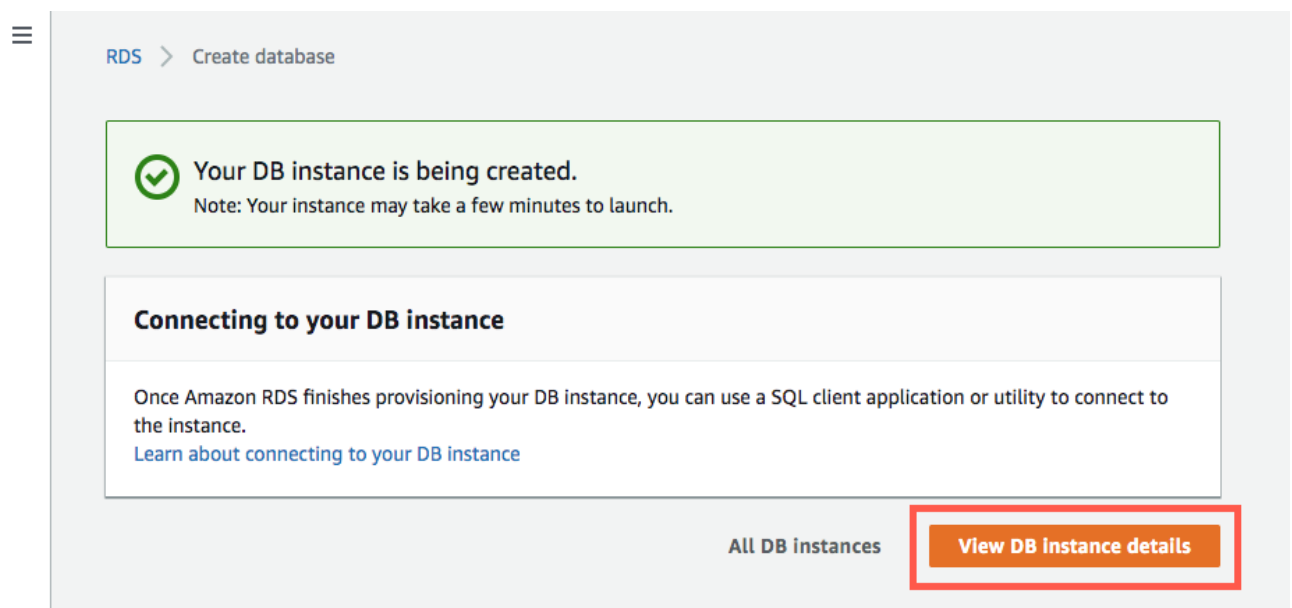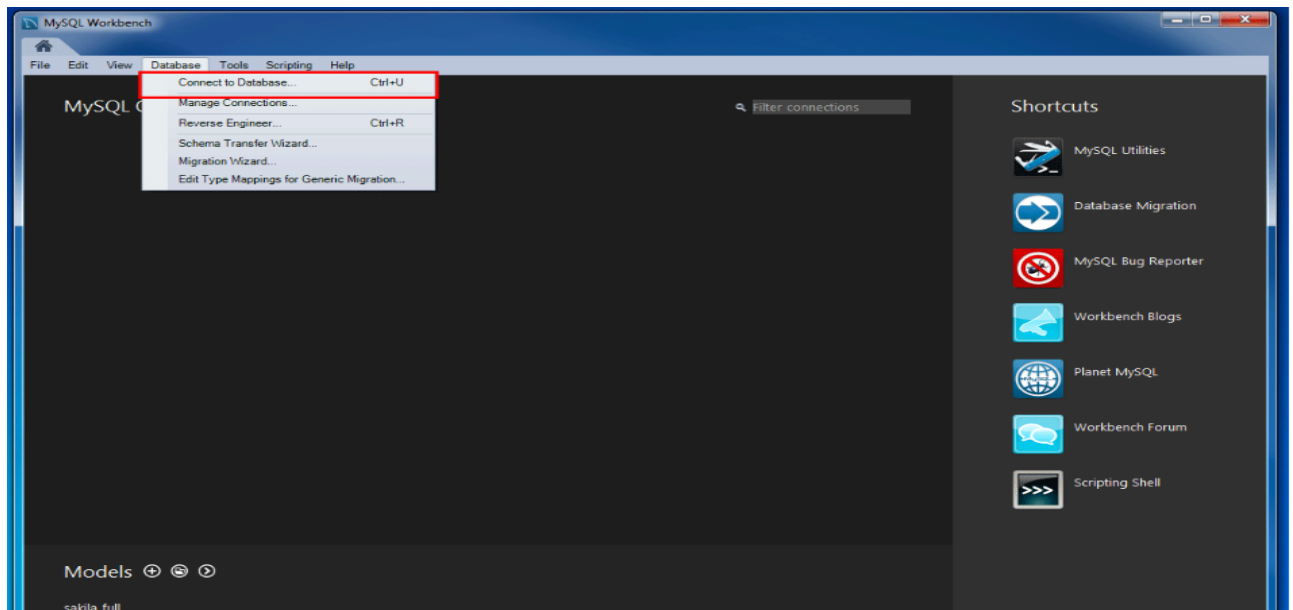

Figure 5: Instance now created

2   Connect to the MySQL Database

In this step, we will connect to the database you created using MySQL Workbench.

Launch the MySQL Workbench application and go to Database > Connect to Database (Ctrl+U) from the menu bar.

Figure 6: SQL client: MySQL workbench

A dialog box appears. Enter the following:

Hostname: You can find your hostname on the Amazon RDS console as shown in the screenshot to the right.

Port: The default value should be 3306.

Username: Type in the username you created for the Amazon RDS database. In this tutorial, it is 'masterUsername.'

Password: Click Store in Vault (or Store in Keychain on macOS) and enter the password that you used when creating the Amazon RDS database.

Click OK
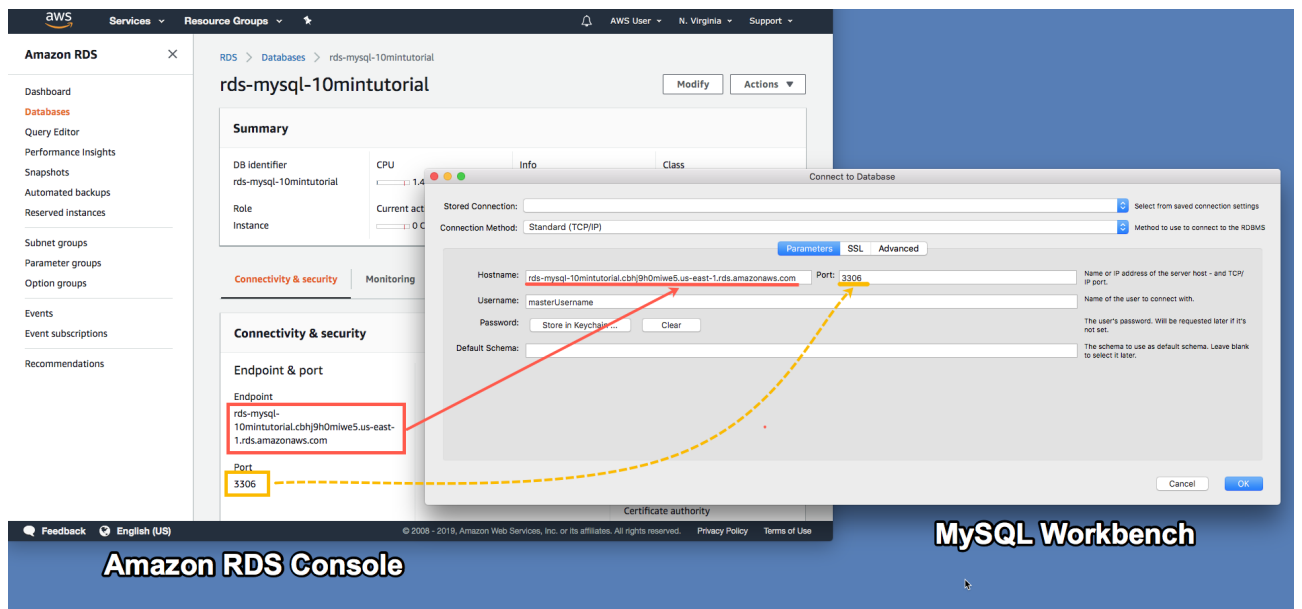
Figure 7: Connect RDS to SQL Client