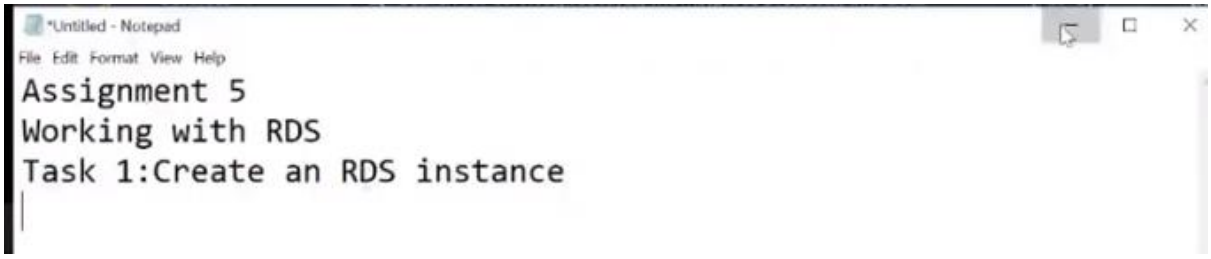
Assignments

Day 5: Assignments 4:



While creating RDS:

Add different stages of the instance.

Include snapshot of every stages i.e., what is the multi high availability you have chosen,

What is the type of storage you have chosen, what is the type of database engine you have chosen?

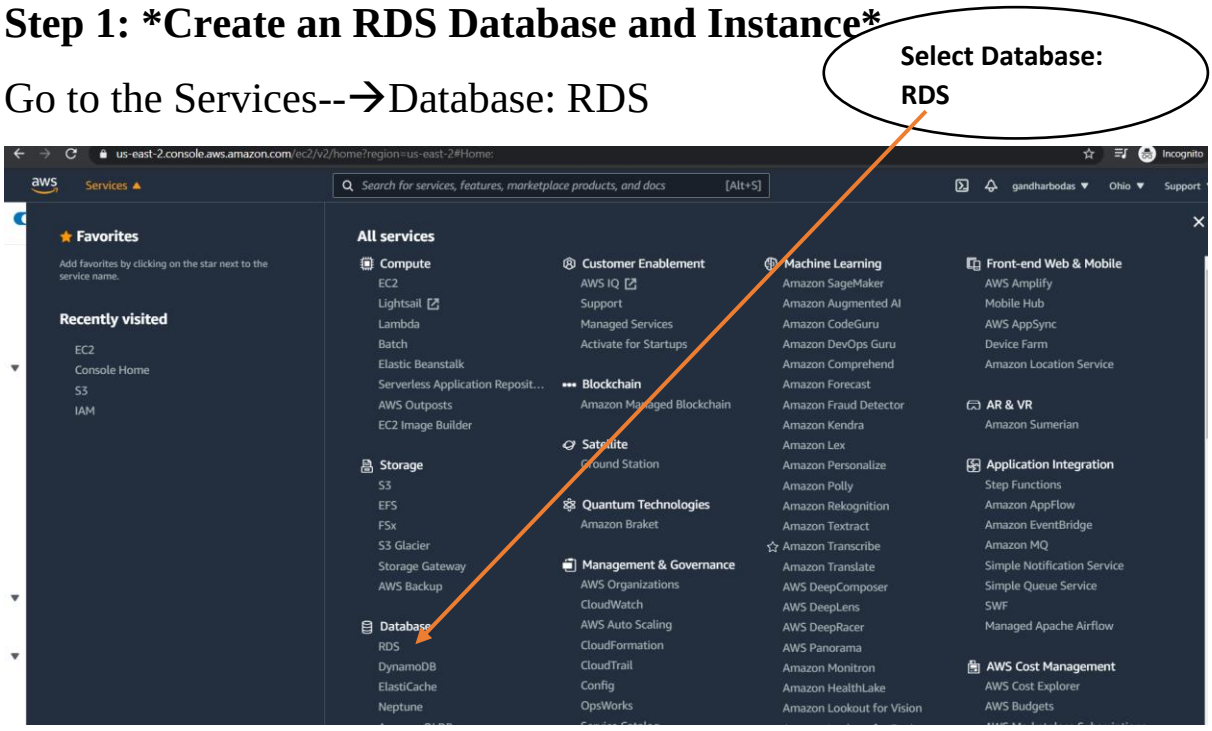
List the RDS instances under the RDS console as well.

Answer:

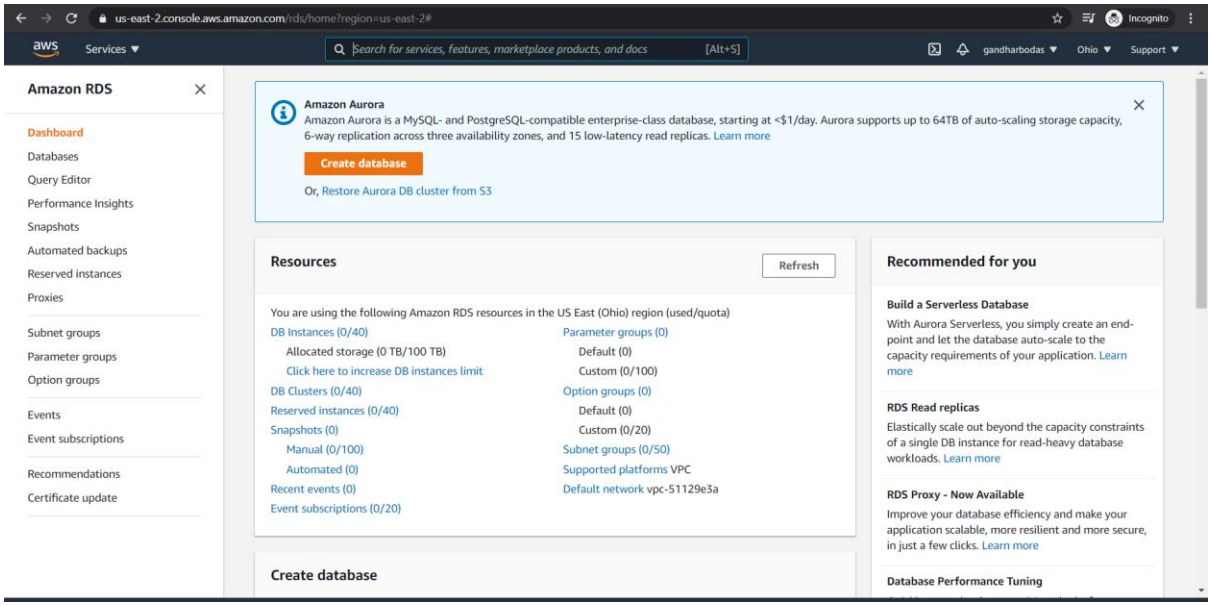
Part 1: MySQL: Templates : Production:

Step 1: *Create an RDS Database and Instance*

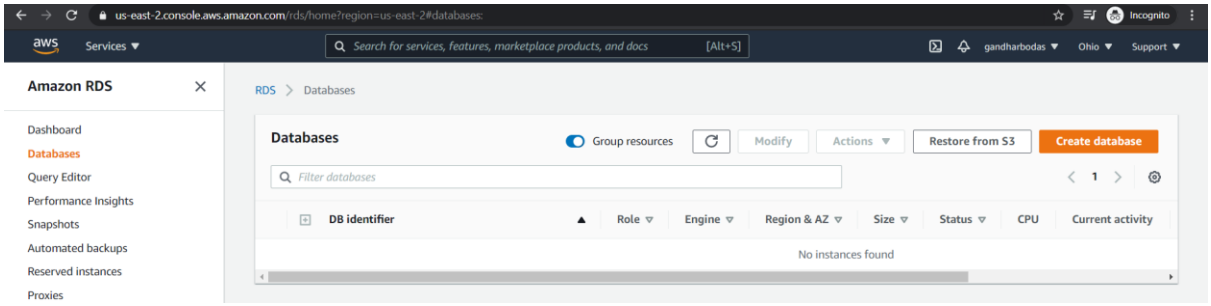
Go to the Services--→Database: RDS



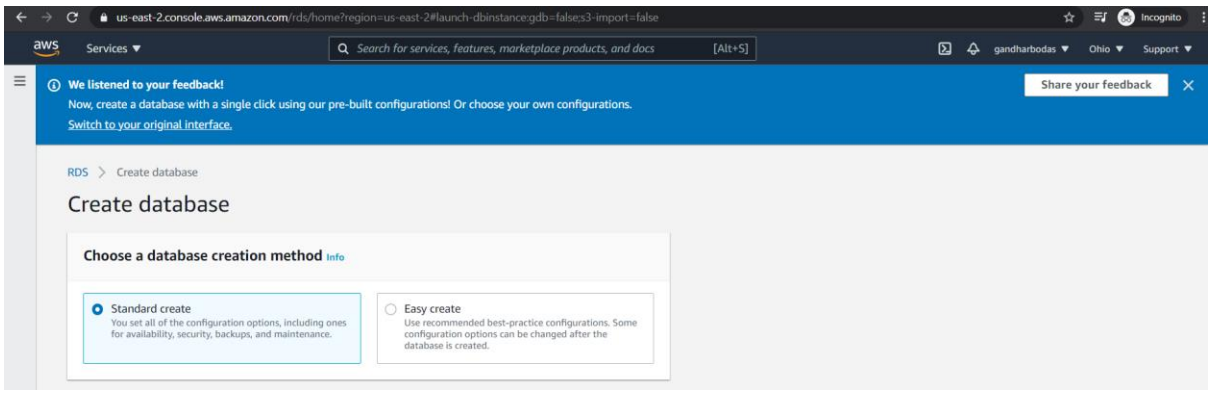
Now you will be able to see the Amazon RDS page as below. Click on Database which is on left hand side:

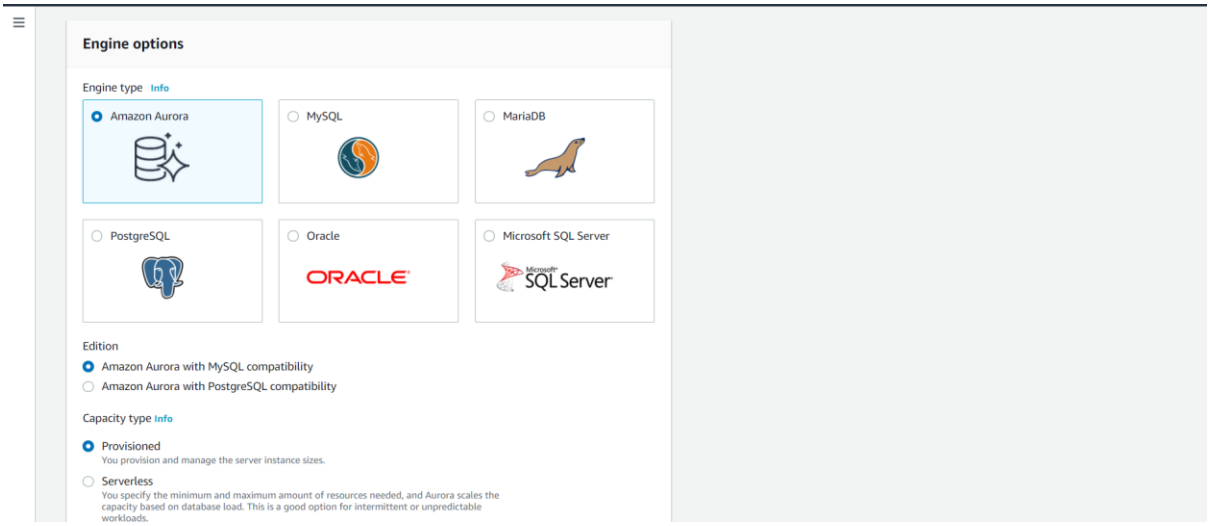


After click on “Database” option you can able to see the below page:



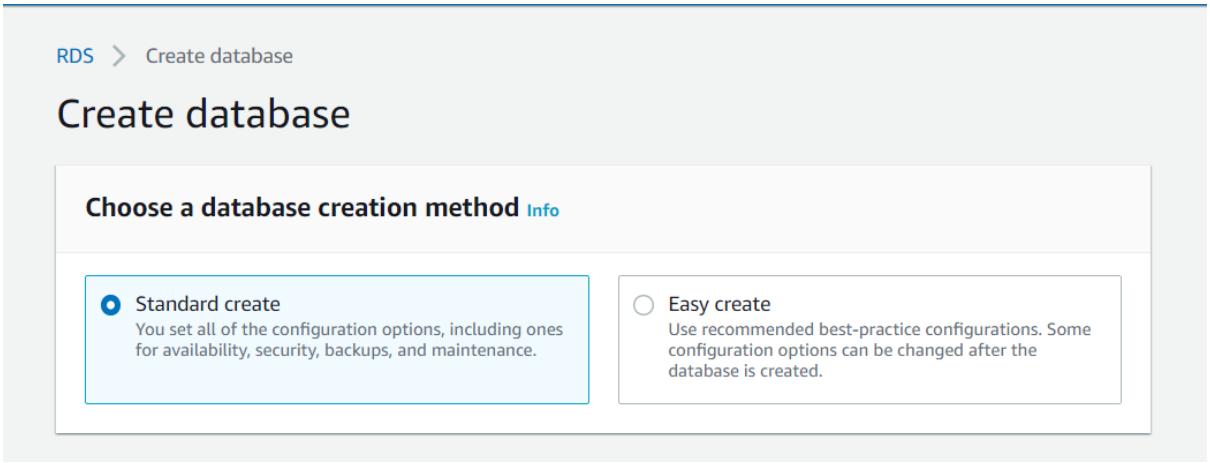
Now click on “Create database” button and see the below page:





In this let's go with the below details: Select options as below:

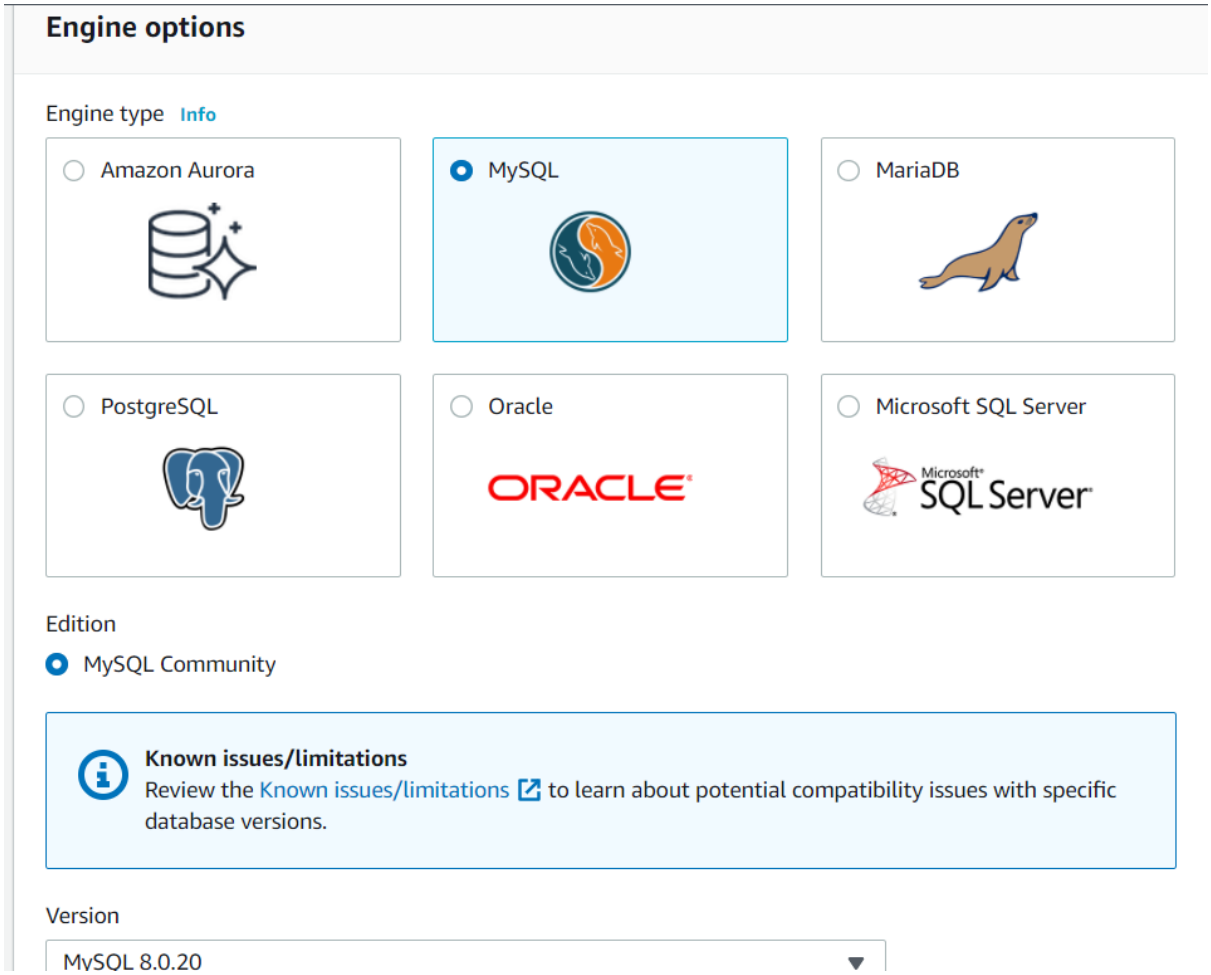
Database creation method: "Standard create"



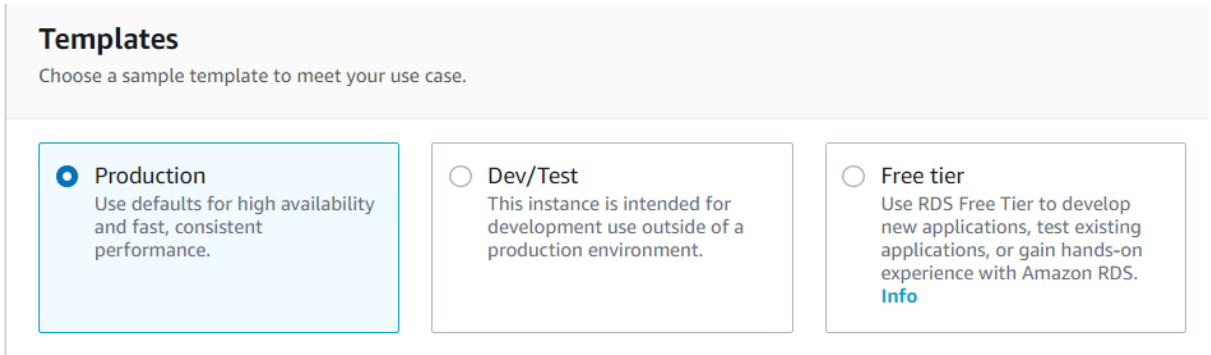
Engine options: MySQL.

Edition: MySQL Community

Version: MySQL 8.0.20

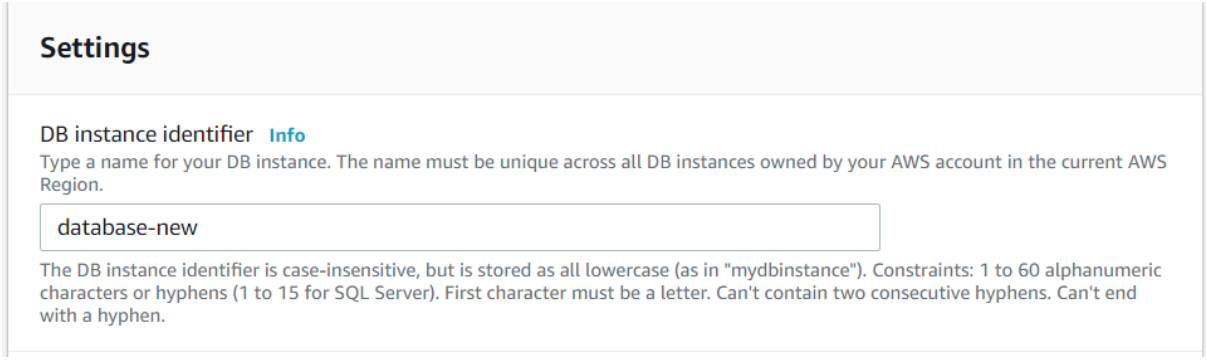


Templates: Production.



Settings:

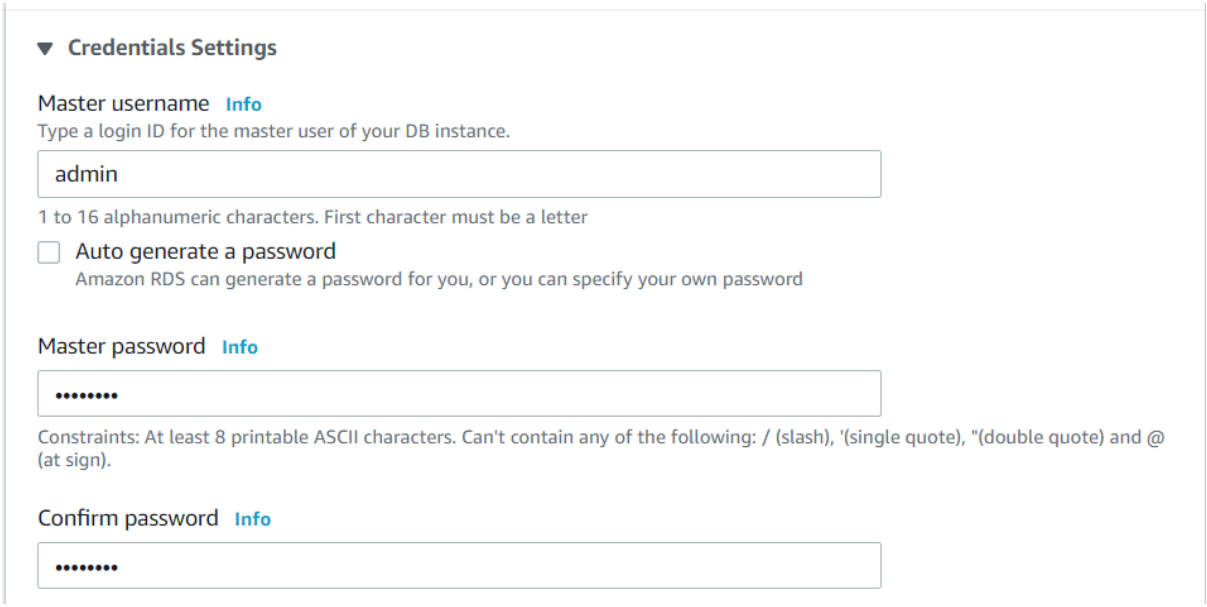
DB instance identifier: database-new



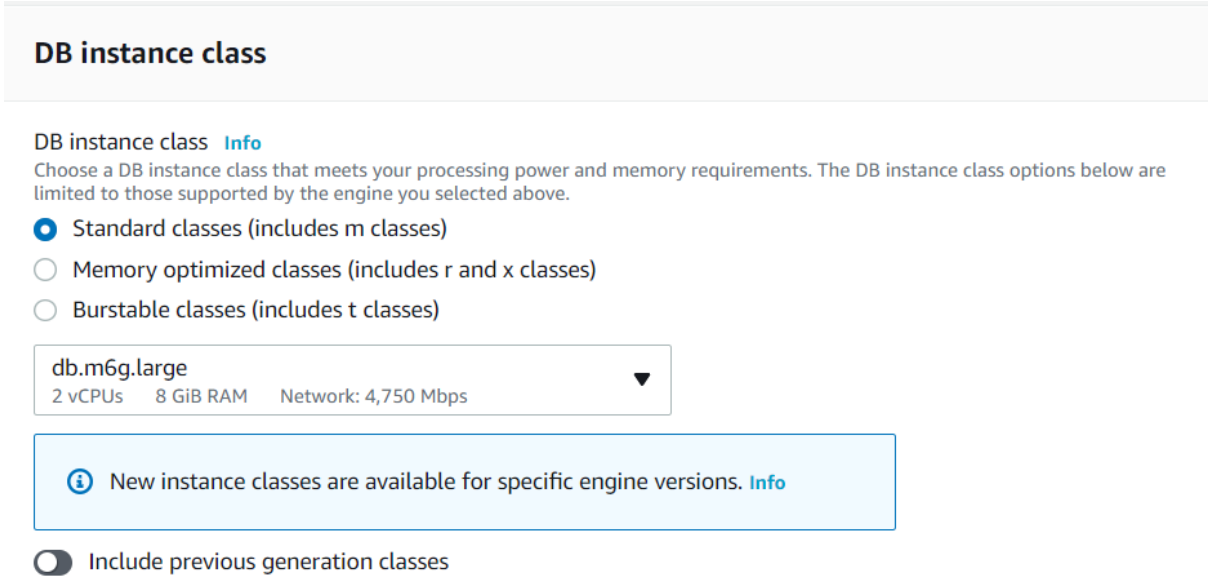
Credentials Settings: Master username: admin

Master password : admin

Confirm password: admin



DB instance class: Standard classes (includes m classes)



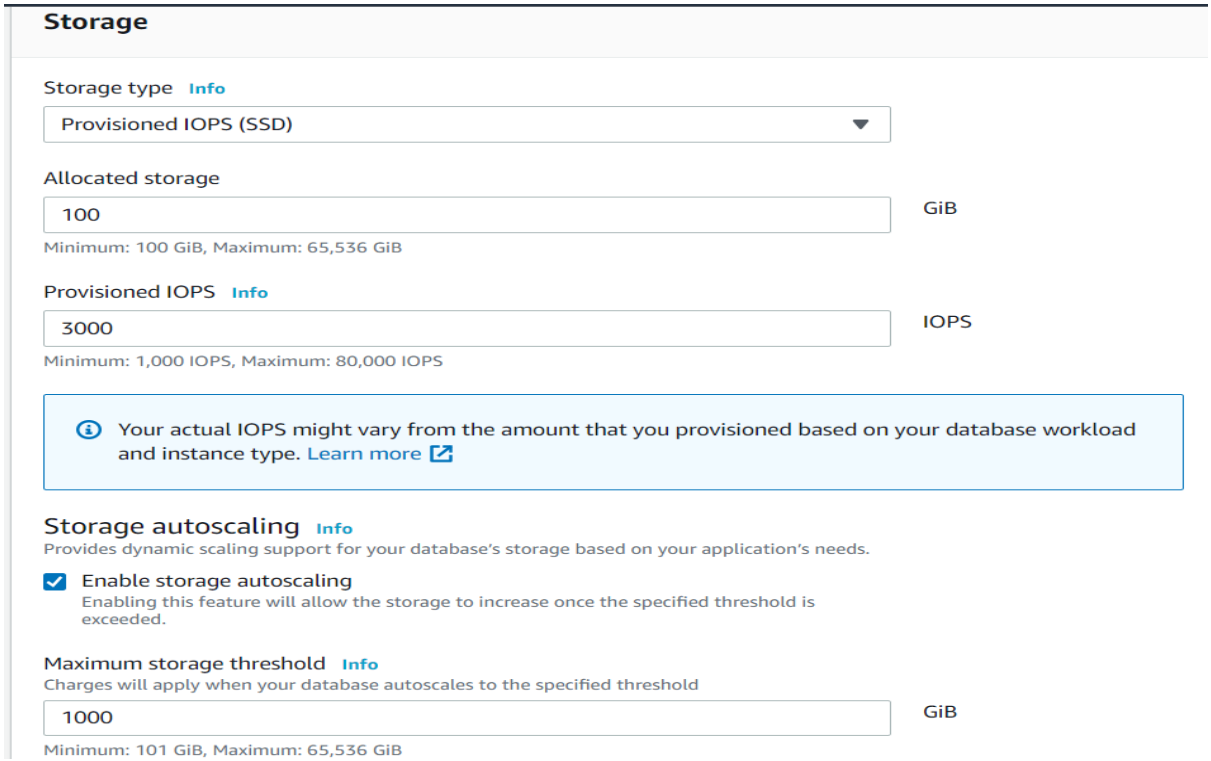
Storage:

Storage type: Provisioned IOPS (SSD)
Allocated storage: 100 GB
Provisional IOPS: 3000 IOPS

Storage autoscaling Info:

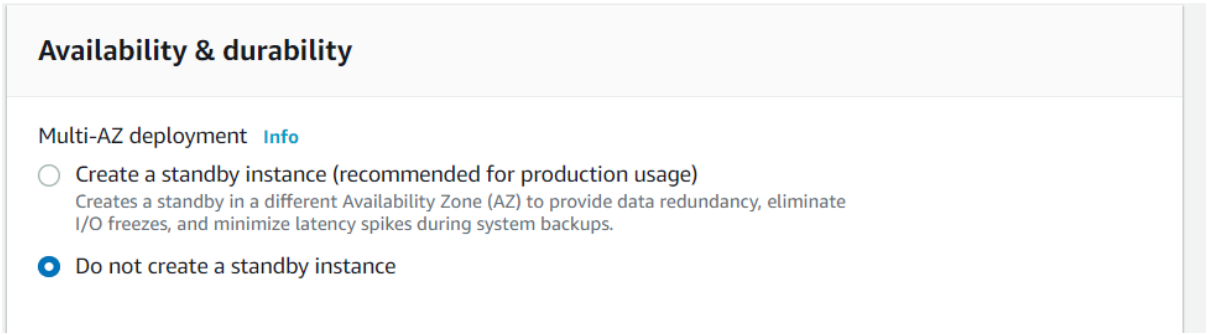
Tick check box “Enable storage autoscaling” and

Maximum storage threshold: 1000 GiB.



Availability & durability:

Multi-AZ deployment: Do not create a standby instance



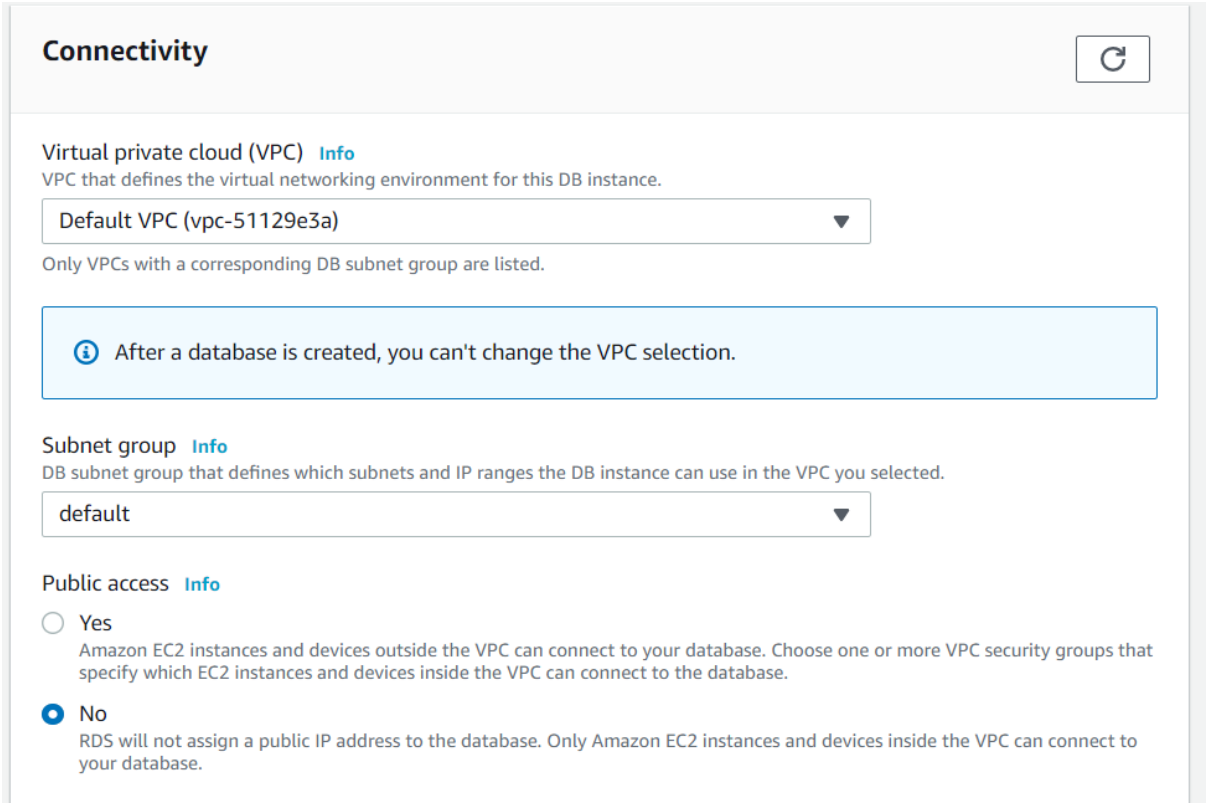
Connectivity:

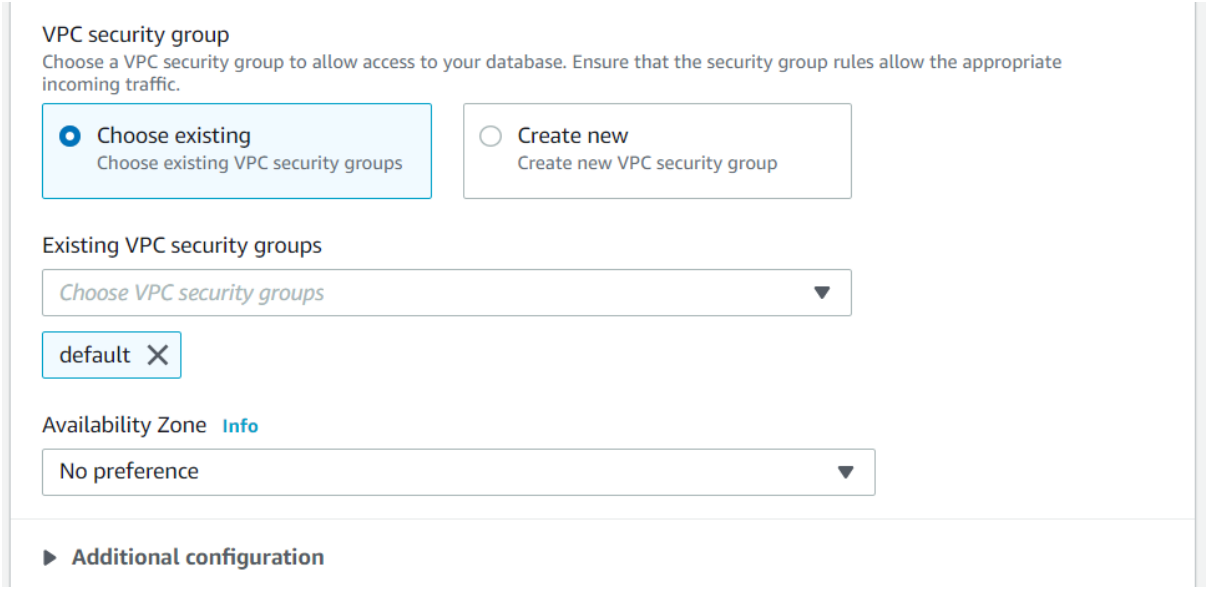
Virtual private cloud (VPC)Info: Default VPC (vpc-51129e3a)

Subnet group: default

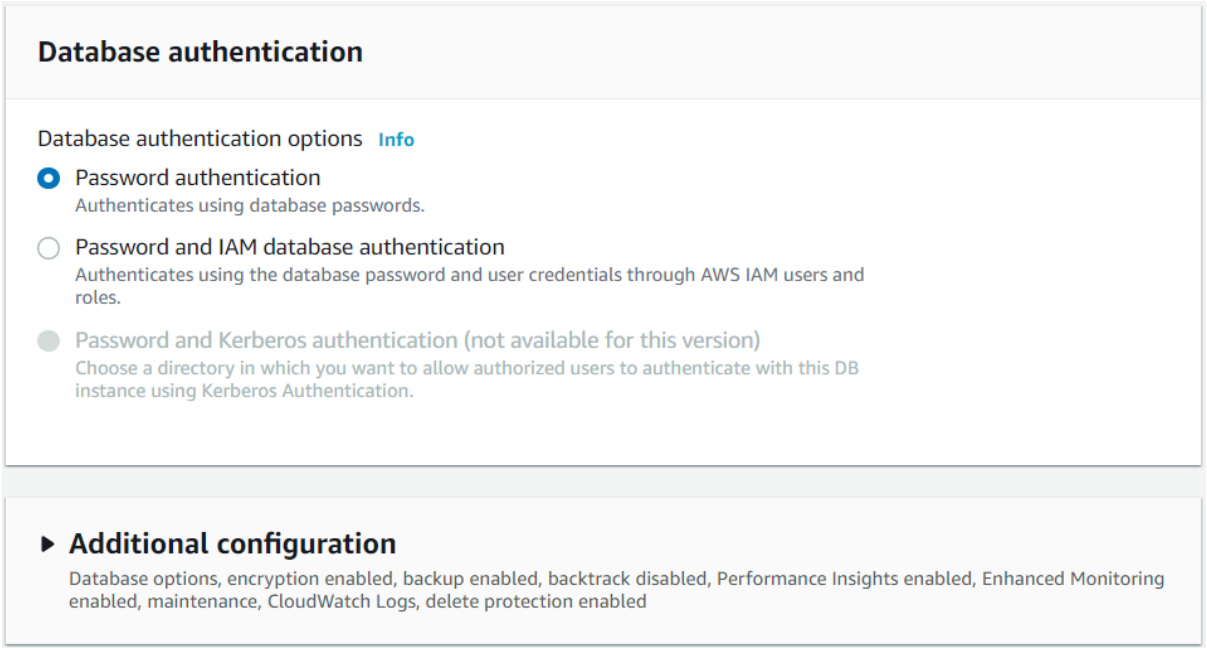
Public access: No

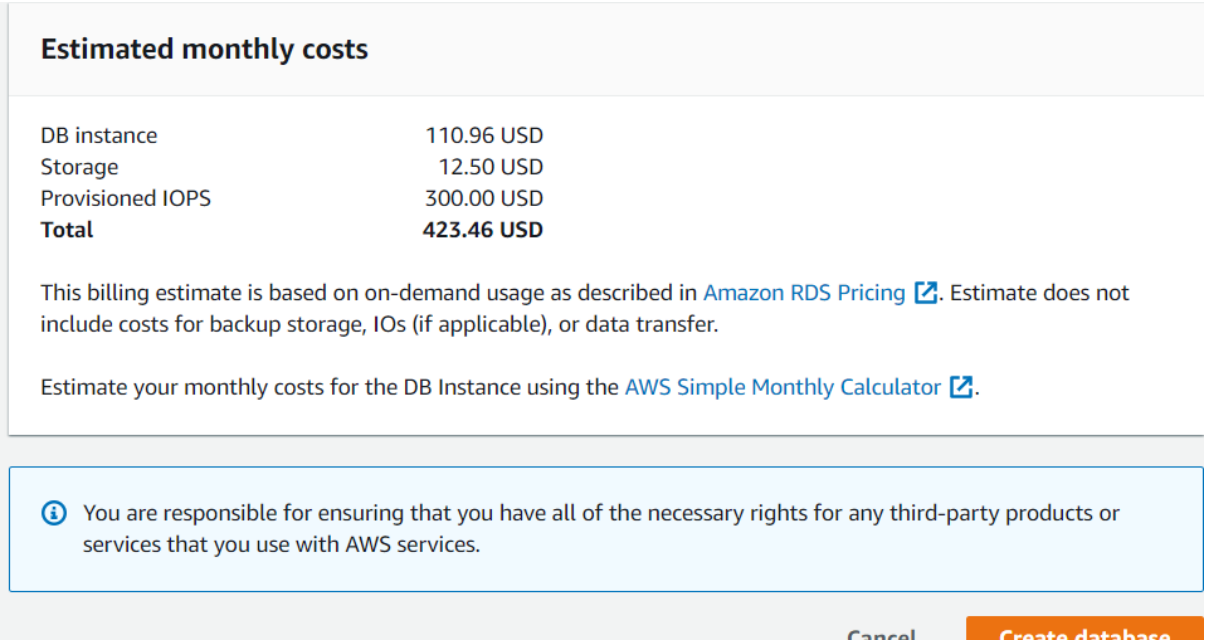
VPC security group: Keep as it is. Nothing changed.





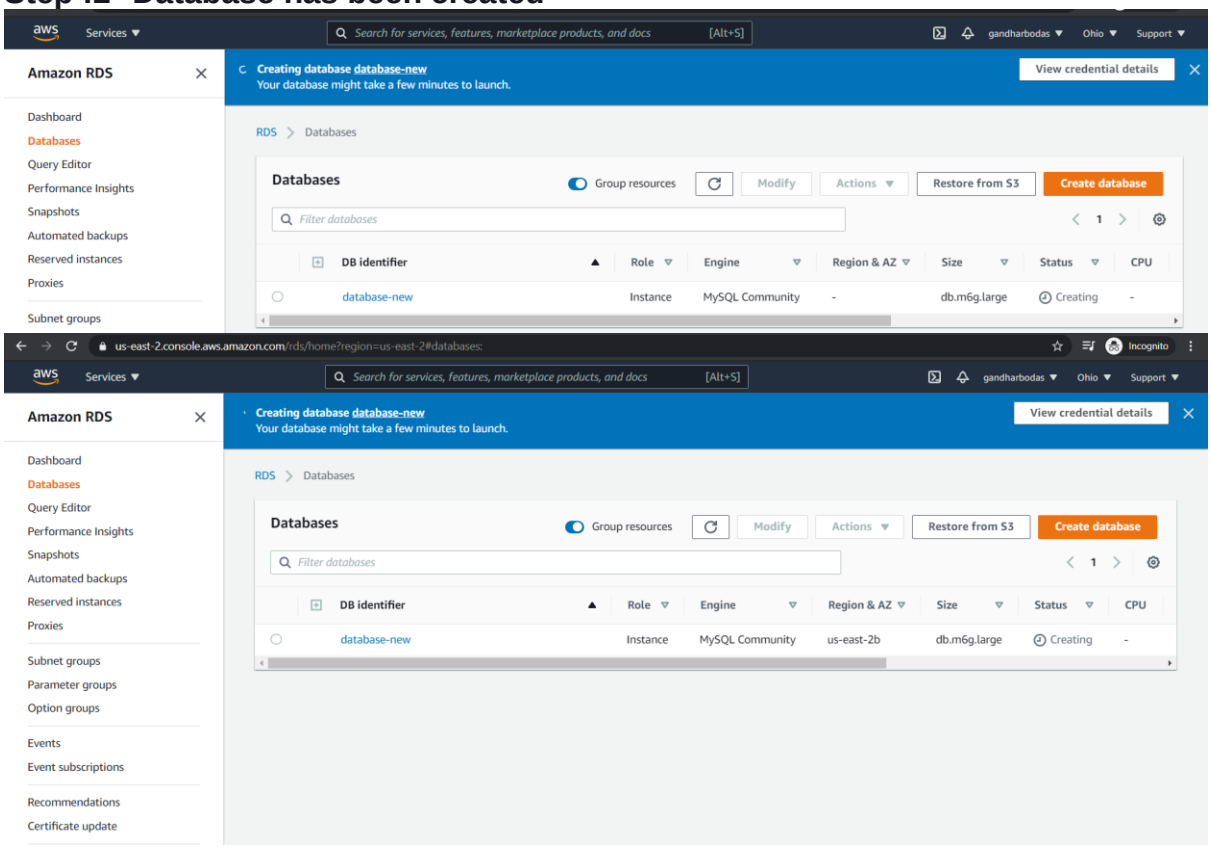
Database authentication: Keep as it is. Nothing changed.



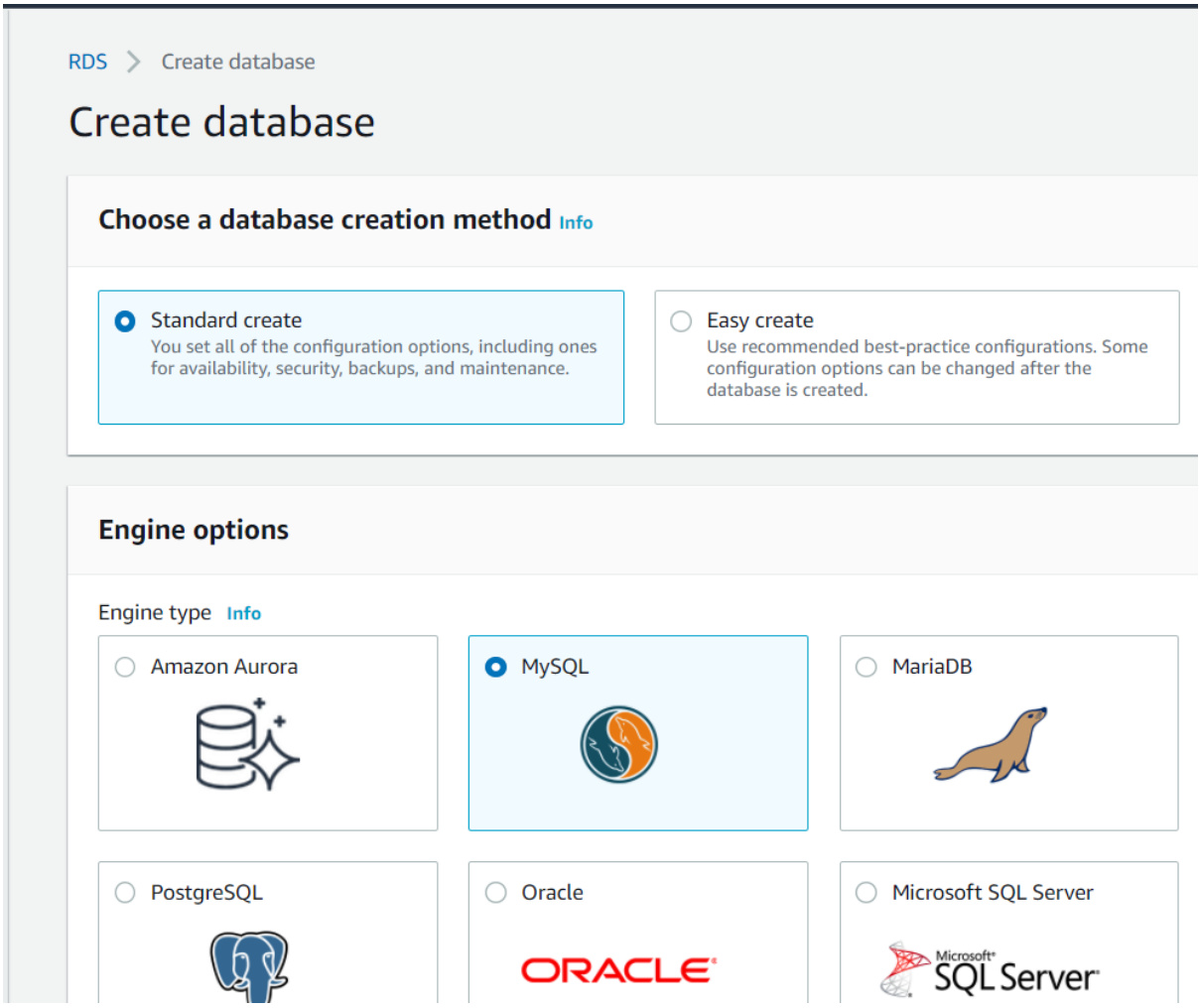


Once done these all settings clicked on “Create database button”

Step :2 *Database has been created*



Part 1: MySQL: Templates : Free Tier:



Edition

MySQL Community

Known issues/limitations
Review the Known issues/limitations to learn about potential compatibility issues with specific database versions.

Version

MySQL 8.0.20

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.

database-1

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.

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

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

New instance classes are available for specific engine versions. Info

Include previous generation classes

Storage

Storage type Info

Provisioned IOPS (SSD)

Allocated storage

100 GiB

Minimum: 100 GiB, Maximum: 16,384 GiB

Provisioned IOPS Info

3000 IOPS

Minimum: 1,000 IOPS, Maximum: 80,000 IOPS

Your actual IOPS might vary from the amount that you provisioned based on your database workload and instance type. Learn more

Storage autoscaling Info

Provides dynamic scaling support for your database's storage based on your application's needs.

- [x] Enable storage autoscaling
  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: 101 GiB, Maximum: 16,384 GiB

Availability & durability

Multi-AZ deployment Info

- Create a standby instance (recommended for production usage)
  Creates a standby in a different Availability Zone (AZ) to provide data redundancy, eliminate I/O freezes, and minimize latency spikes during system backups.
- Do not create a standby instance

Connectivity

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

Default VPC (vpc-51129e3a)

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-51129e3a

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

Existing VPC security groups

Choose VPC security groups

default

Availability Zone Info

No preference

▶ Additional configuration

Database authentication

Database authentication options Info

- (•) Password authentication
  Authenticates using database passwords.
- ( ) Password and IAM database authentication
  Authenticates using the database password and user credentials through AWS IAM users and roles.
- ( ) Password and Kerberos authentication (not available for this version)
  Choose a directory in which you want to allow authorized users to authenticate with this DB instance using Kerberos Authentication.

▸ 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:

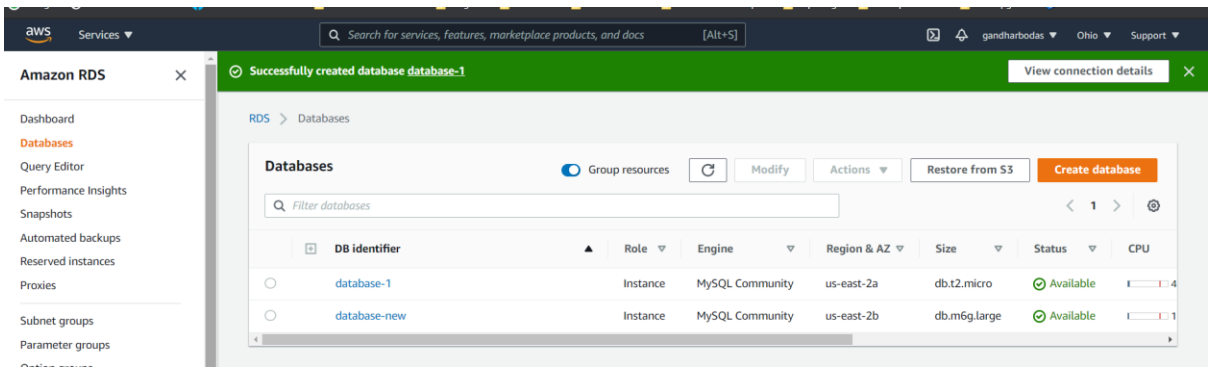
- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro Instance.
- 20 GB of General Purpose Storage (SSD).
- 20 GB for automated backup storage and any user-initiated DB Snapshots.

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.

Total: 2 Instances has been created:



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