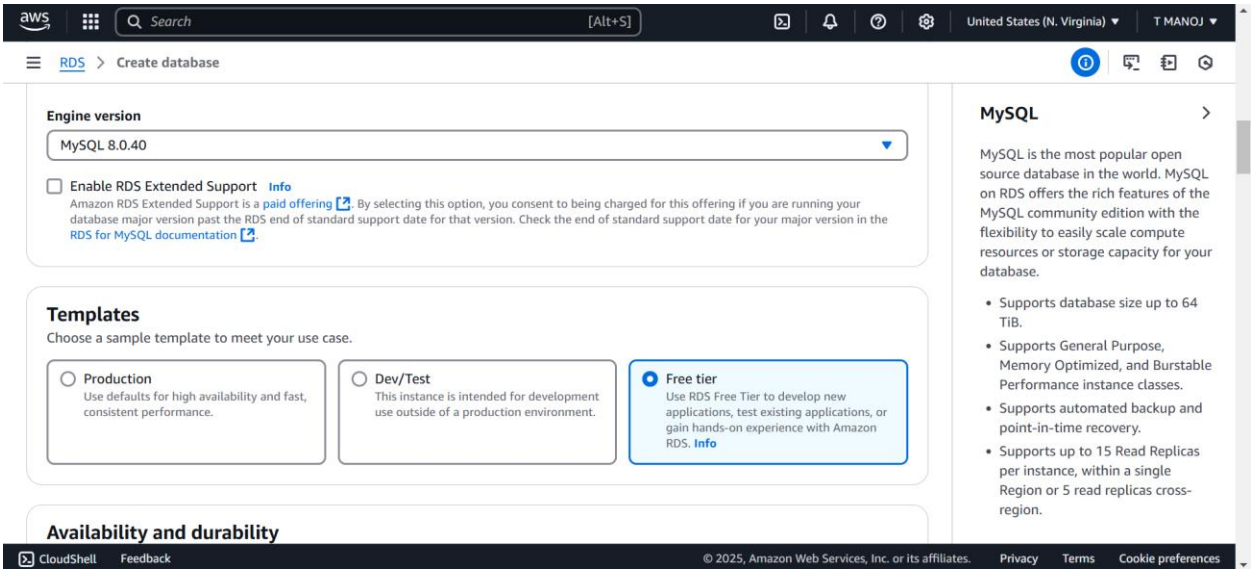
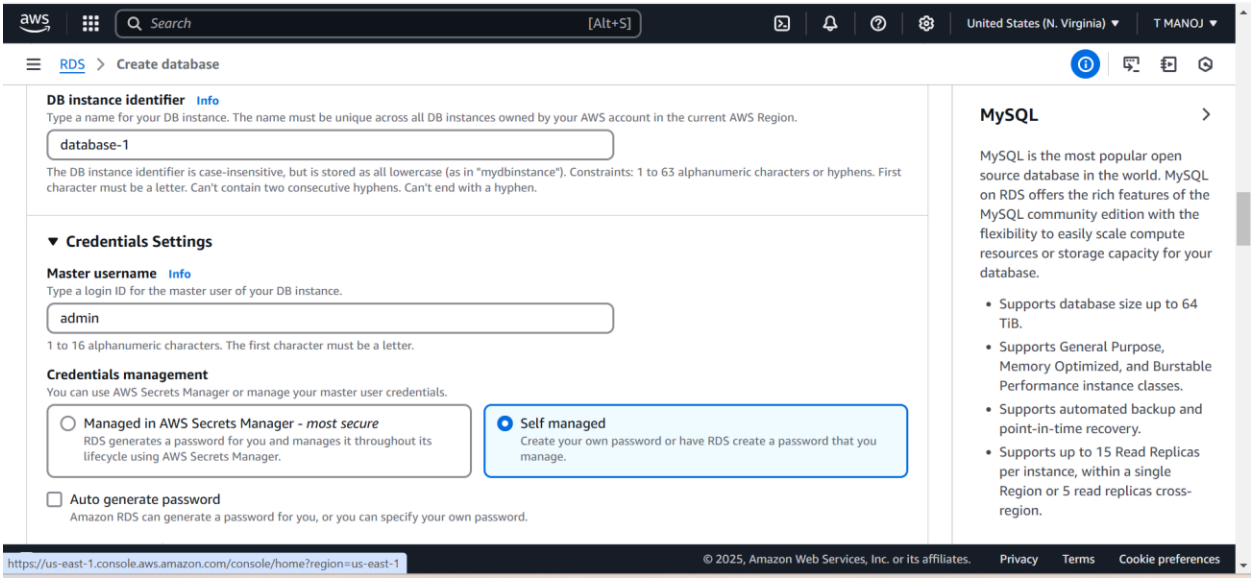
CREATION OF RDS DATABASE AND READ REPLICA

NAME : T MANOJ

1. Create an RDS Database Instance

1. Log in to the AWS Management Console.
2. Navigate to RDS and click Create database.
3. Choose the database engine (MySQL).
4. Set Public accessibility to Yes (if needed).
5. Click Create database .




aws
Search
[Alt+S]
United States (N. Virginia)
T MANOJ
RDS > Create database
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 63 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. The first character must be a letter.
Credentials management
You can use AWS Secrets Manager or manage your master user credentials.
Managed in AWS Secrets Manager - most secure
RDS generates a password for you and manages it throughout its lifecycle using AWS Secrets Manager.
Self managed
Create your own password or have RDS create a password that you manage.
Auto generate password
Amazon RDS can generate a password for you, or you can specify your own password.
MySQL
MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.
Supports database size up to 64 TiB.
Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
Supports automated backup and point-in-time recovery.
Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.
https://us-east-1.console.aws.amazon.com/console/home?region=us-east-1
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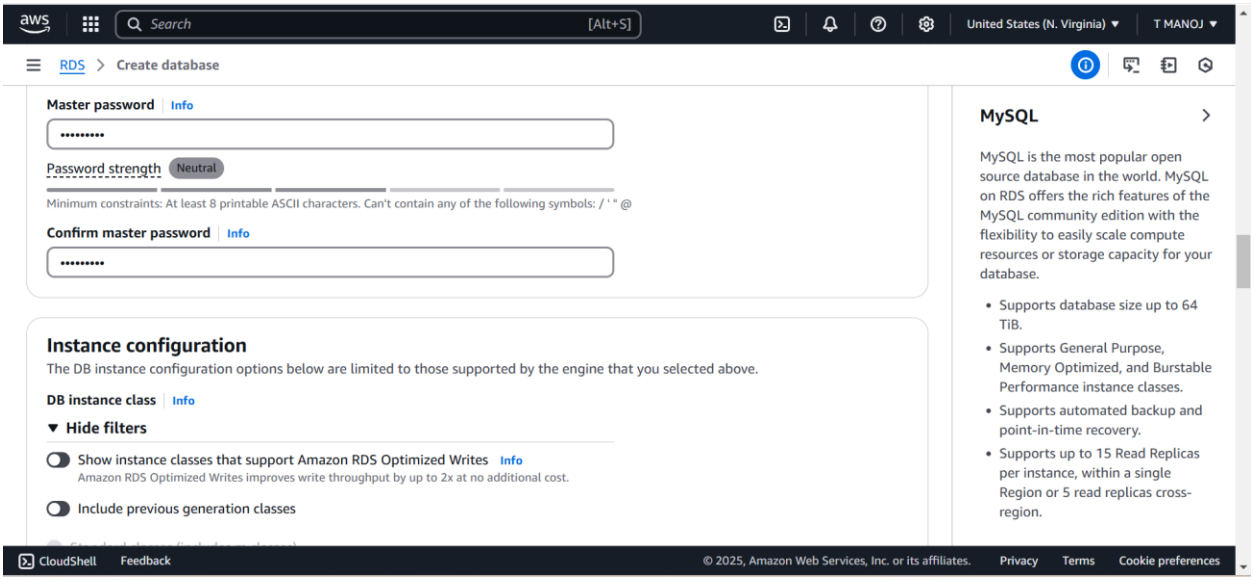
aws
Search
[Alt+S]
United States (N. Virginia)
T MANOJ
RDS > Create database
Master password Info
Password strength
Neutral
Minimum constraints: At least 8 printable ASCII characters. Can't contain any of the following symbols: / ' " @
Confirm master password Info
Instance configuration
The DB instance configuration options below are limited to those supported by the engine that you selected above.
DB instance class Info
Hide filters
Show instance classes that support Amazon RDS Optimized Writes Info
Amazon RDS Optimized Writes improves write throughput by up to 2x at no additional cost.
Include previous generation classes
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CloudShell
Feedback
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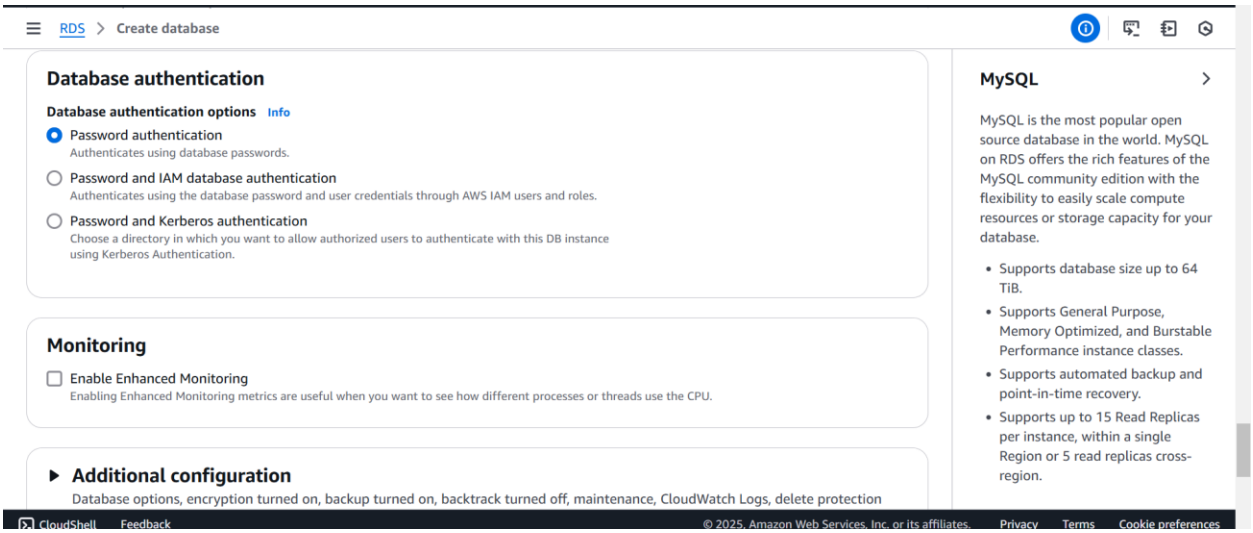
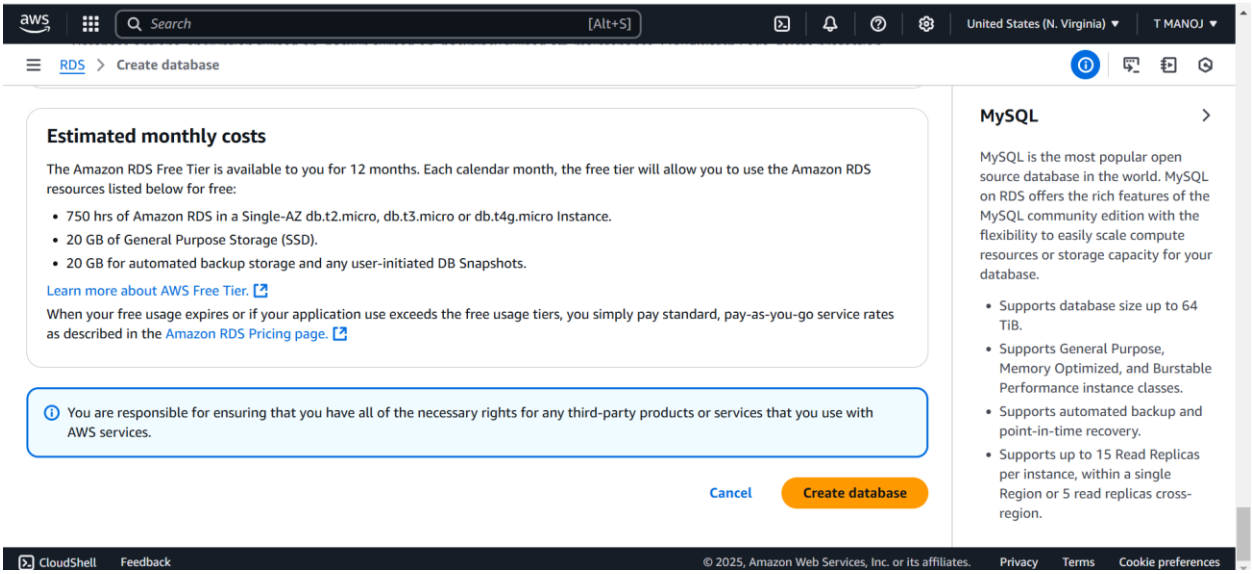
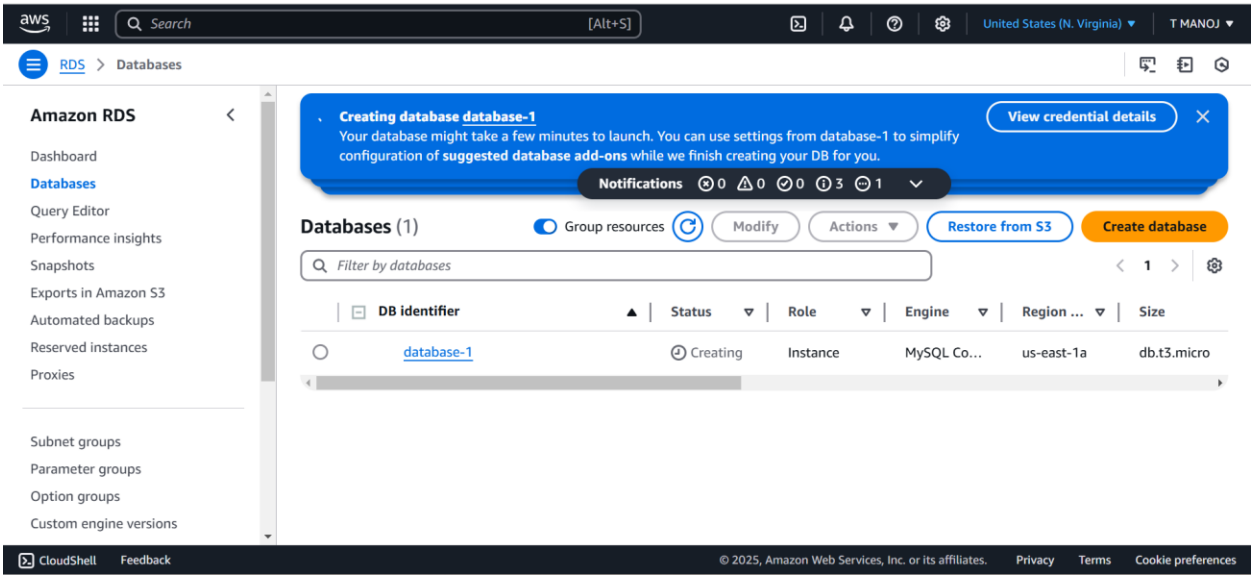




2. Connect to RDS Using MySQL Workbench

1. Get the RDS endpoint from the RDS dashboard.
2. Open MySQL Workbench and create a new connection.
3. Provide connection details (e.g., hostname, username, password).
4. Click Test Connection and connect.
5. Run your 10 queries to verify connectivity and output.


Search [Alt+S]
United States (N. Virginia)
T MANOJ
RDS > Databases
Amazon RDS
Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Creating database database-1
Your database might take a few minutes to launch. You can use settings from database-1 to simplify configuration of suggested database add-ons while we finish creating your DB for you.
View credential details
Notifications
Databases (1)
Group resources
Modify
Actions
Restore from S3
Create database
Filter by databases
DB identifier
Status
Role
Engine
Region ...
Size
database-1
Creating
Instance
MySQL Co...
us-east-1a
db.t3.micro
CloudShell
Feedback
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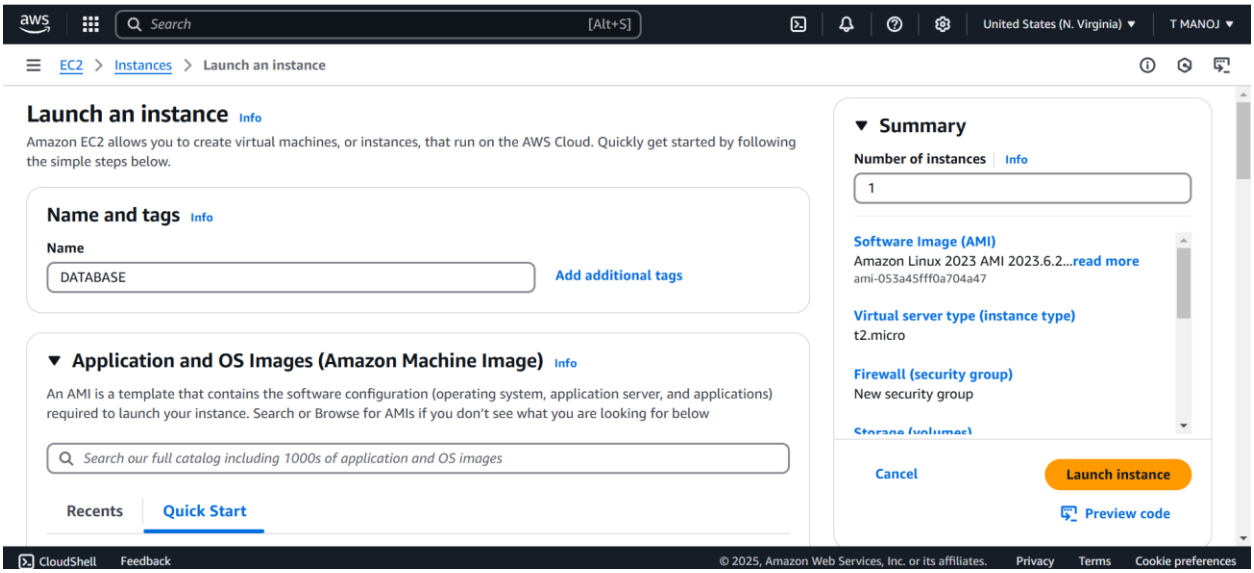
Search [Alt+S]
United States (N. Virginia)
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EC2 > Instances > Launch an instance
Launch an instance Info
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags Info
Name
DATABASE
Add additional tags
Application and OS Images (Amazon Machine Image) Info
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below
Search our full catalog including 1000s of application and OS images
Recents
Quick Start
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2023 AMI 2023.6.2...read more
ami-053a45fff0a704a47
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Cancel
Launch instance
Preview code
CloudShell
Feedback
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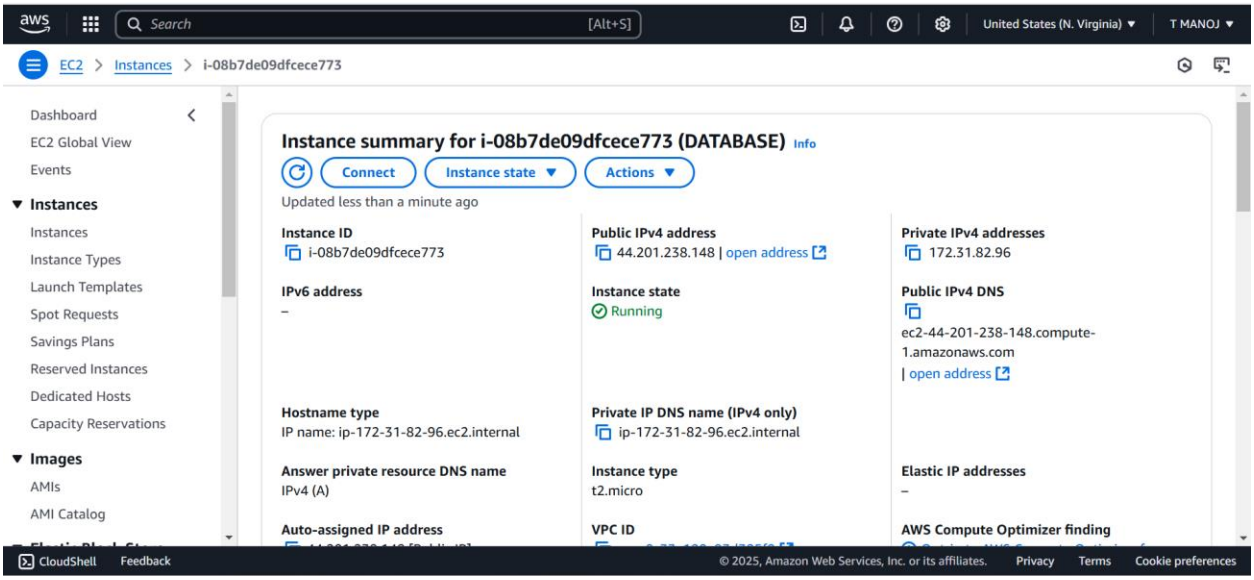
Search
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United States (N. Virginia)
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EC2 > Instances > i-08b7de09dfcece773
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Instance summary for i-08b7de09dfcece773 (DATABASE) Info
Connect
Instance state
Actions
Updated less than a minute ago
Instance ID
i-08b7de09dfcece773
Public IPv4 address
44.201.238.148 | open address
Private IPv4 addresses
172.31.82.96
IPv6 address
–
Instance state
Running
Public IPv4 DNS
ec2-44-201-238-148.compute-1.amazonaws.com | open address
Hostname type
IP name: ip-172-31-82-96.ec2.internal
Private IP DNS name (IPv4 only)
ip-172-31-82-96.ec2.internal
Answer private resource DNS name
IPv4 (A)
Instance type
t2.micro
Elastic IP addresses
–
Auto-assigned IP address
VPC ID
AWS Compute Optimizer finding
CloudShell
Feedback
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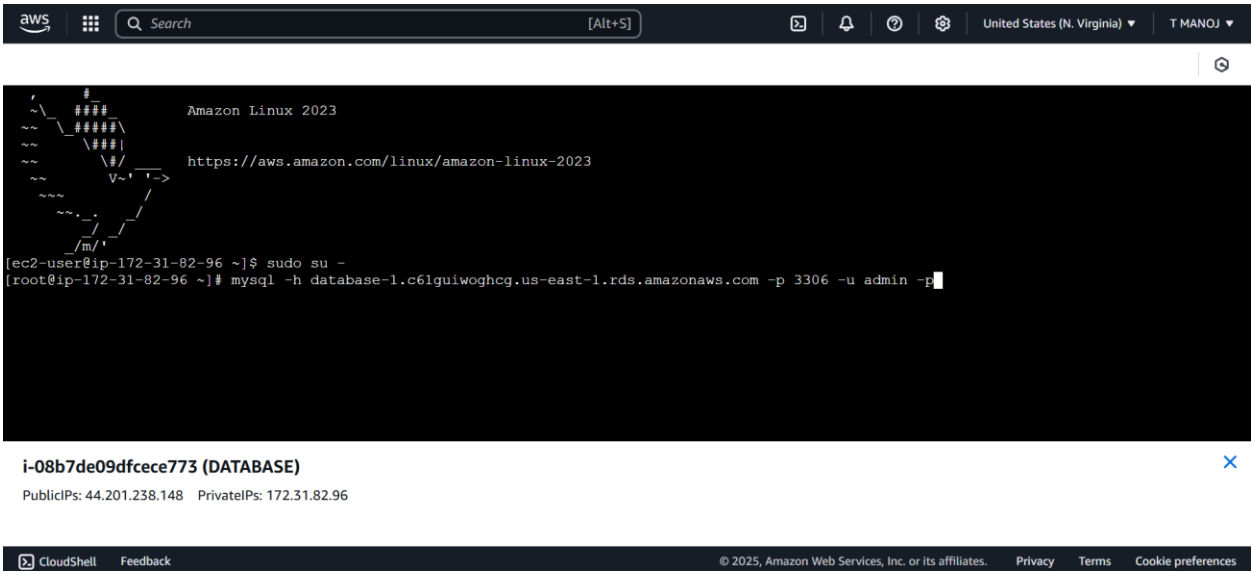
Search
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United States (N. Virginia)
T MANOJ
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-172-31-82-96 ~]$ sudo su -
[root@ip-172-31-82-96 ~]# mysql -h database-1.c61guiwoghcg.us-east-1.rds.amazonaws.com -p 3306 -u admin -p
i-08b7de09dfcece773 (DATABASE)
PublicIPs: 44.201.238.148 PrivateIPs: 172.31.82.96
CloudShell
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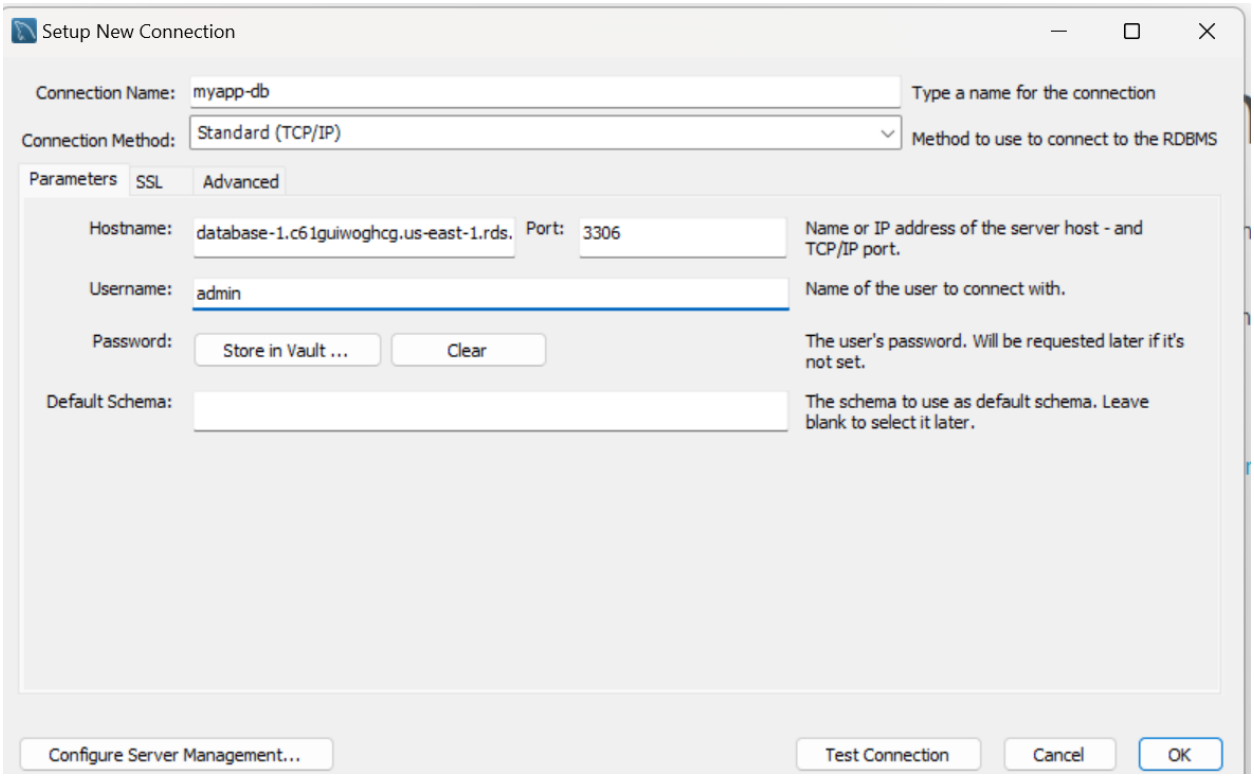
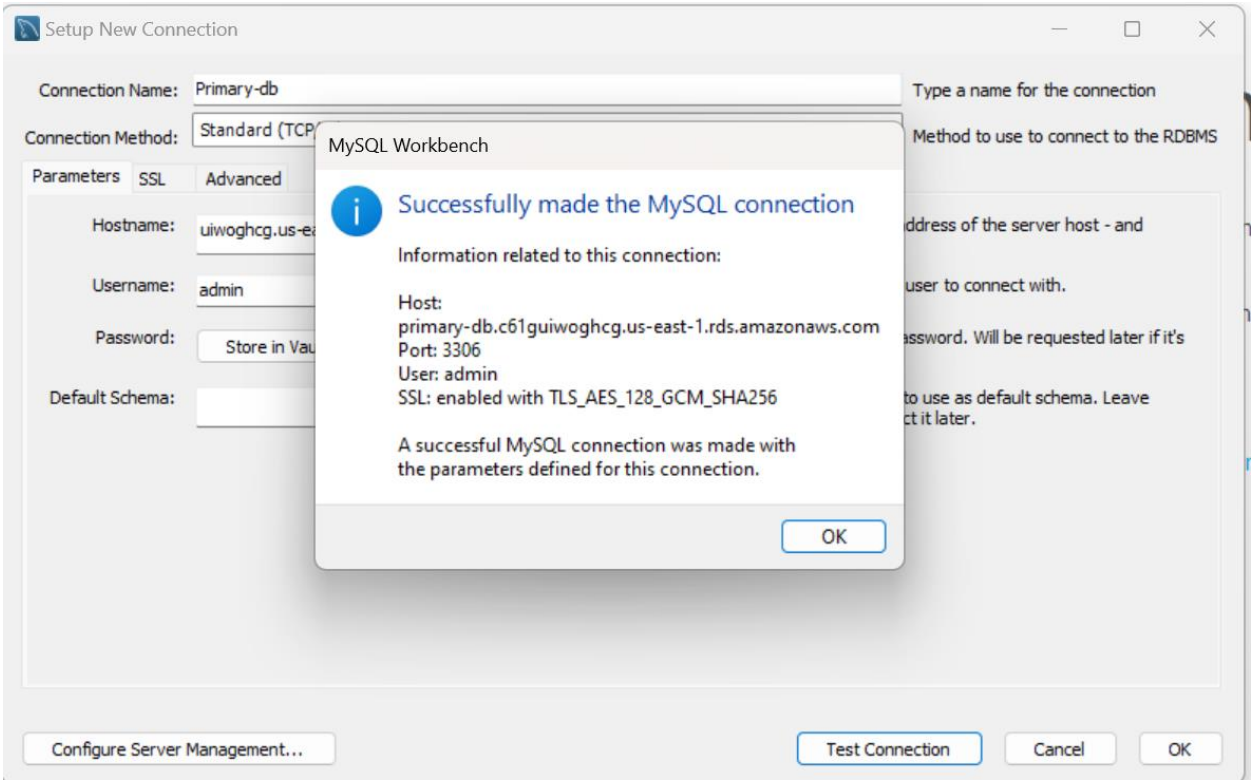
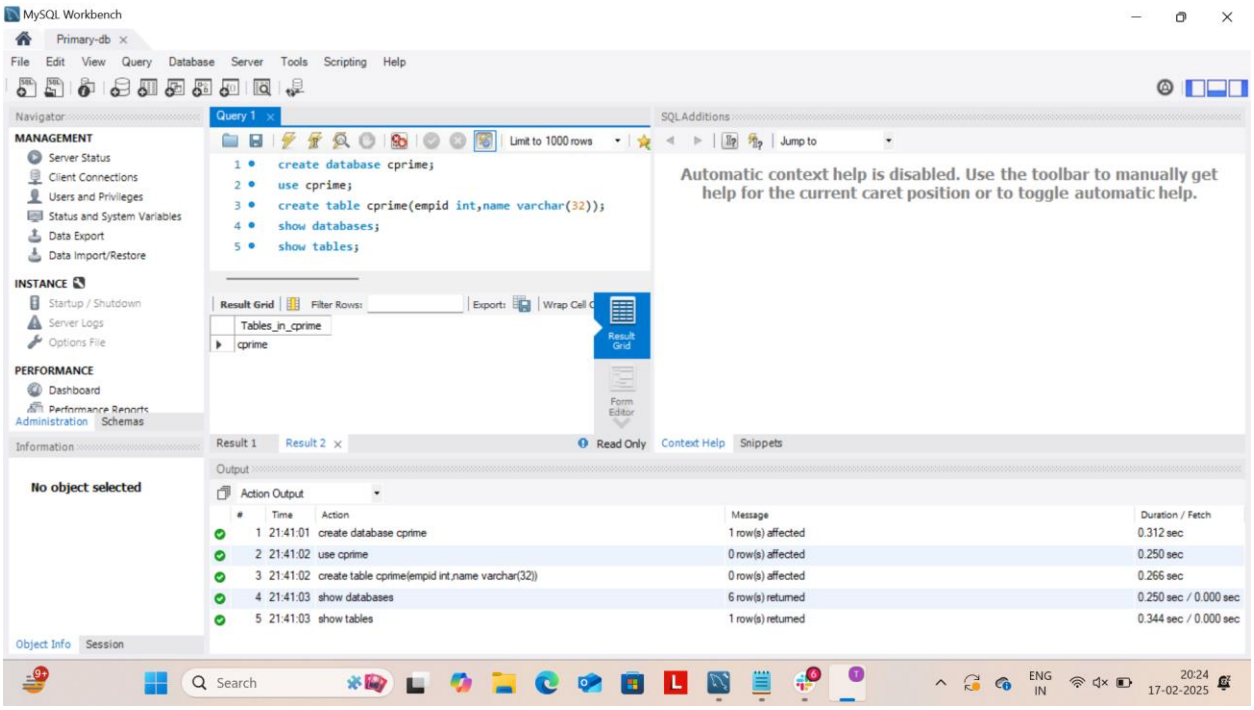
```
[root@ip-172-31-82-96 ~]# mysql -h database-1.c61guiwoghcg.us-east-1.rds.amazonaws.com -P 3306 -u admin -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 38
Server version: 8.0.40 Source distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]>
```


```
Your MySQL connection id is 38
Server version: 8.0.40 Source distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> show databases
    -> ;
+--------------------+
| Database           |
+--------------------+
| RDSDATABASE        |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.005 sec)

MySQL [(none)]>
```




Setup New Connection
Connection Name:
Primary-db
Type a name for the connection
Connection Method:
Standard (TCP
Method to use to connect to the RDBMS
Parameters
SSL
Advanced
Hostname:
uiwoghcg.us-ea
ddress of the server host - and
Username:
admin
user to connect with.
Password:
Store in Vau
ssword. Will be requested later if it's
Default Schema:
to use as default schema. Leave
ct it later.
MySQL Workbench
Successfully made the MySQL connection
Information related to this connection:
Host:
primary-db.c61guiwoghcg.us-east-1.rds.amazonaws.com
Port: 3306
User: admin
SSL: enabled with TLS_AES_128_GCM_SHA256
A successful MySQL connection was made with
the parameters defined for this connection.
OK
Configure Server Management...
Test Connection
Cancel
OK


MySQL Workbench
Primary-db
File Edit View Query Database Server Tools Scripting Help
Navigator
MANAGEMENT
Server Status
Client Connections
Users and Privileges
Status and System Variables
Data Export
Data Import/Restore
INSTANCE
Startup / Shutdown
Server Logs
Options File
PERFORMANCE
Dashboard
Performance Reports
Administration Schemas
Information
No object selected
Object Info Session
Query 1
Limit to 1000 rows
1 create database cprime;
2 use cprime;
3 create table cprime(empid int,name varchar(32));
4 show databases;
5 show tables;
Result Grid Filter Rows: Export: Wrap Cell
Tables_in_cprime
cprime
Result 1 Result 2
Read Only
SQL Additions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Context Help Snippets
Output
Action Output
Time Action Message Duration / Fetch
1 21:41:01 create database cprime 1 row(s) affected 0.312 sec
2 21:41:02 use cprime 0 row(s) affected 0.250 sec
3 21:41:02 create table cprime(empid int,name varchar(32)) 0 row(s) affected 0.266 sec
4 21:41:03 show databases 6 row(s) returned 0.250 sec / 0.000 sec
5 21:41:03 show tables 1 row(s) returned 0.344 sec / 0.000 sec
Search
ENG IN
20:24 17-02-2025

```
Your MySQL connection id is 34
Server version: 8.0.40 Source distribution

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> show databases;
+--------------------+
| Database           |
+--------------------+
| Primarydb          |
| cprime             |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.001 sec)

MySQL [(none)]>
```
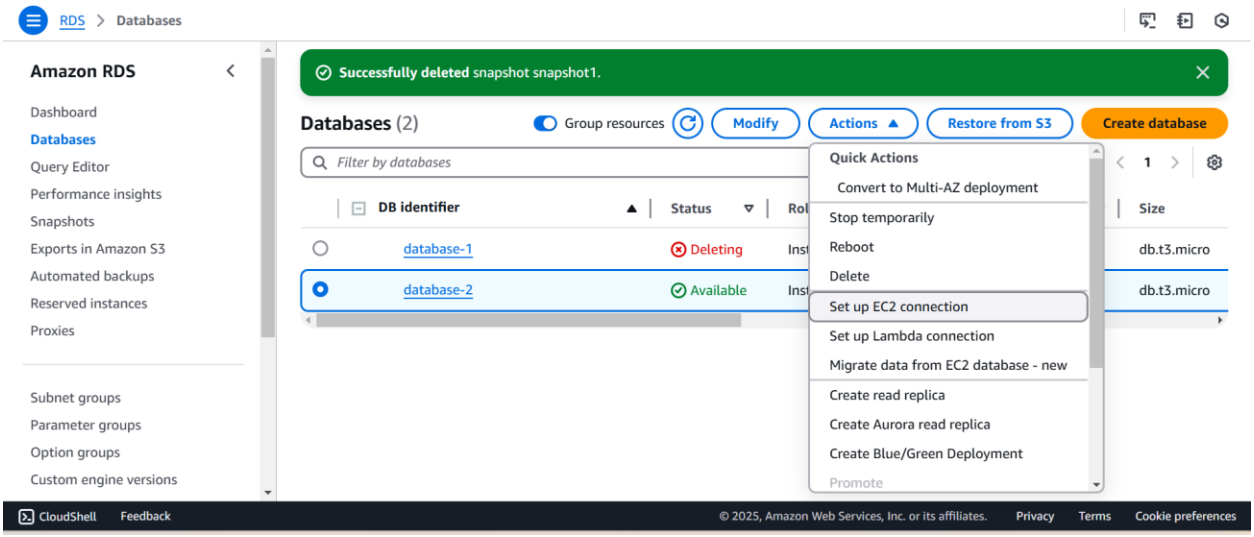

```
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
6 rows in set (0.001 sec)

MySQL [(none)]> use cprime
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MySQL [cprime]> show tables;
+------------------+
| Tables_in_cprime |
+------------------+
| cprime           |
+------------------+
1 row in set (0.002 sec)

MySQL [cprime]>
```

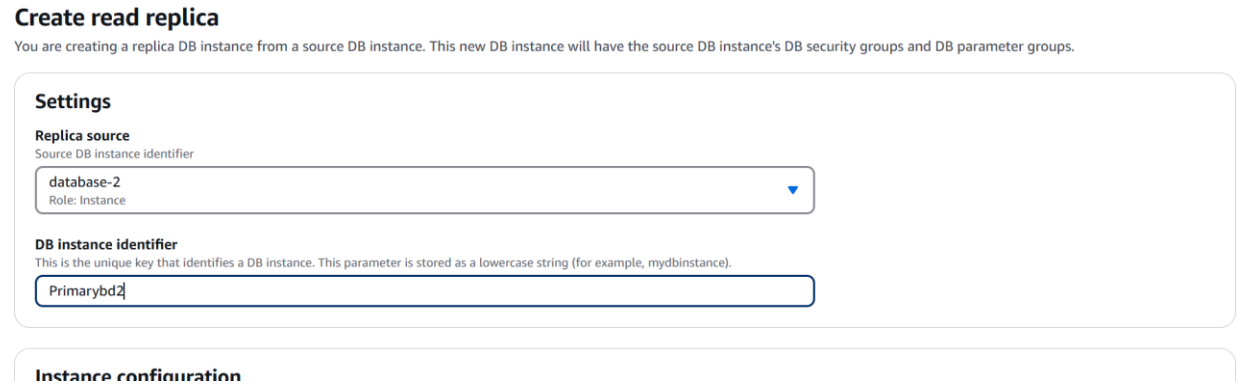
3. Create a Read Replica

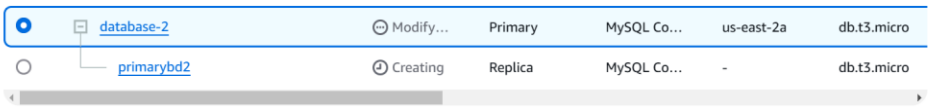
1. In the RDS Console, select the primary DB instance.
2. Click Actions and select Create read replica.
3. Configure the read replica settings .
4. Click Create read replica and wait for it to become available.



4. Connect to the Read Replica

1. Get the read replica endpoint.
2. In MySQL Workbench, create a new connection with the replica's endpoint.
3. Click Test Connection to ensure the connection works.





5. Delete the Primary Database (for testing)

1. In the RDS Console, select the primary DB instance.
2. Click Actions and select Delete.
3. Confirm deletion .