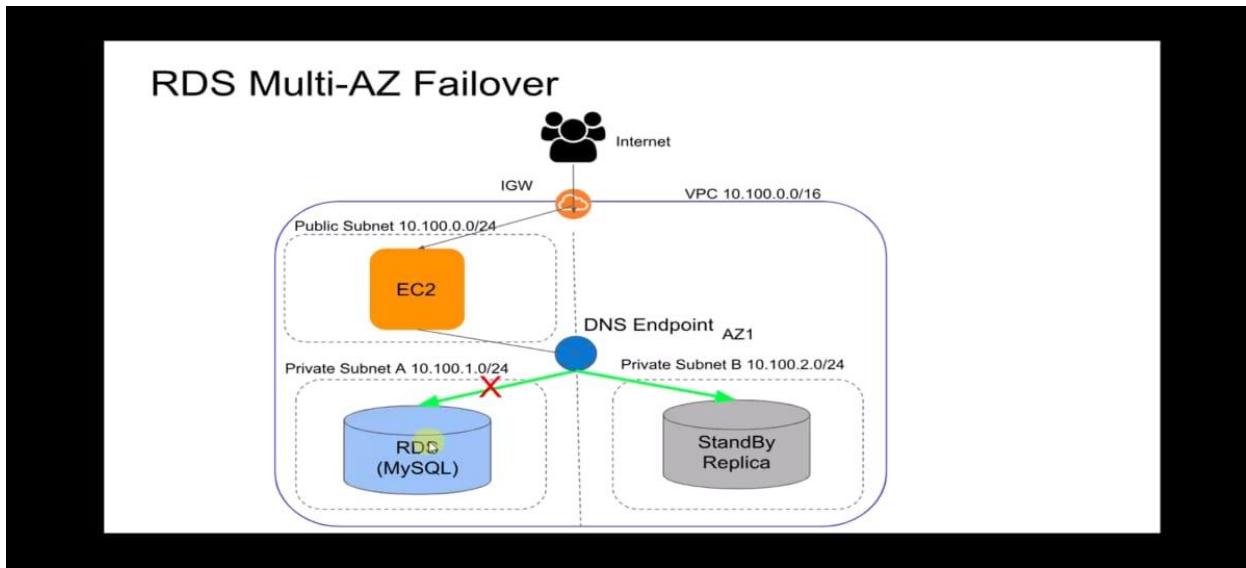


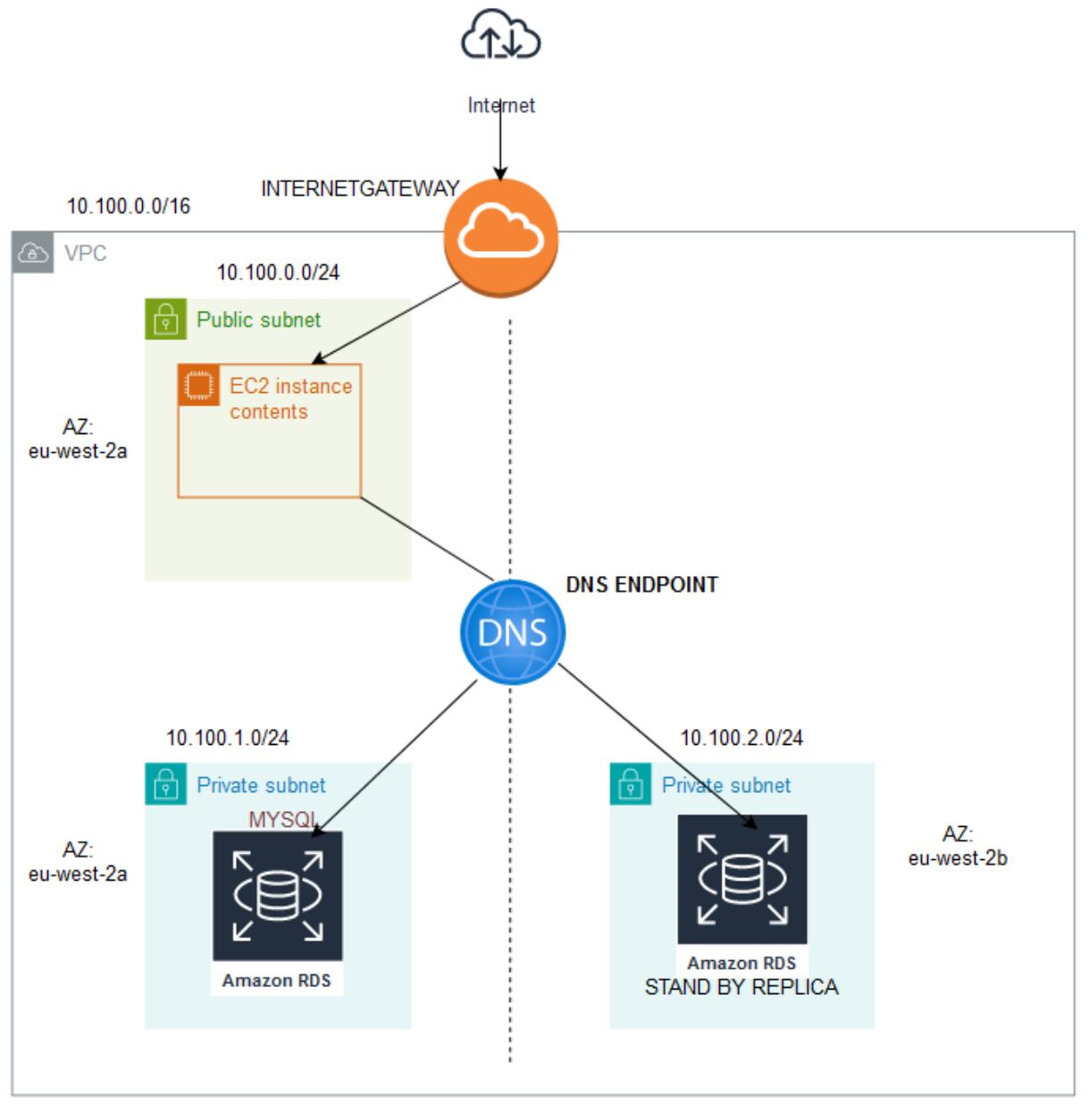
**RDS MULTI-AZ FAILOVER:**

- 1 Create VPC with 2 private subnets and 1 public subnet
- 2 Launch MySQL RDS instance in Multi-AZ deployment mode
- 3 Create RDS DB subnet group consisting 2 private subnets
- 4 Launch EC2 instance in public subnet and connect over SSH
- 5 Install mysql client and connect to RDS instance using RDS DNS endpoint
- 6 Create table and insert some records
- 7 From console, take a note down the AZ in which RDS Master is running
- 8 Reboot RDS instance -> Select Option "Reboot with Failover"
10. Wait for 10 seconds and verify that you can still connect to MySQL DB using same DNS endpoint fromn EC2 instance
11. Verify that you can see all the records you had inserted

Wait for upto 5 minutes and verify that RDS DB instance AZ changes in the Console.



# RDS MULTI-AZ FAILOVER



The screenshot displays two separate instances of the AWS VPC console interface.

**Top Window (VPC Console):**

- Left Sidebar:** Shows the VPC dashboard, EC2 Global View, and a list of VPC-related services: Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, and Endpoints.
- Central Content:** Titled "Your VPCs (1) Info". A table shows one entry: "RDS" with VPC ID [vpc-0da8fab2c2fdec3e](#), State **Available**, and IPv4 CIDR **10.100.0.0/16**.
- Bottom:** A message "Select a VPC above" and standard AWS navigation controls.

**Bottom Window (VPC Console):**

- Left Sidebar:** Shows the VPC dashboard, EC2 Global View, and a list of VPC-related services: Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, and Endpoints.
- Central Content:** Titled "Internet gateways (1) Info". A table shows one entry: "RDS" with Internet gateway ID [igw-0f8e56bc24cec84d9](#), State **Attached**, and VPC ID [vpc-0da8fab2c2fdec3e](#).
- Bottom:** A message "Select an internet gateway above" and standard AWS navigation controls.

**Subnets (1/4) Info**

Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR
PRIVATE-2-SUBNET-RDS	subnet-0d8d9ed25151d5...	Available	vpc-0da...	10.100.2.0/24	-
PUBLIC-SUBNET-RDS	subnet-083271c7d67cc64c2	Available	vpc-0da...	10.100.0.0/24	-
PRIVATE-1-SUBNET-RDS	subnet-0fcf6a7ff940420fc	Available	vpc-0da...	10.100.1.0/24	-

**Route tables (1/3) Info**

Name	Route table ID	Explicit subnet associations	Edge associations
RDS-RT-PUBLIC	rtb-08e2fda2b884bf2ae	subnet-0d8d9ed25151d5...	-
-	rtb-083271c7d67cc64c2	-	-
<b>RDS-RT-PRIVATE</b>	<b>rtb-0fcf6a7ff940420fc</b>	<b>3 subnets</b>	-

The screenshot shows the AWS RDS console interface. At the top, there are tabs for Roundcube, RDS | eu-west-2, RouteTables, Untitled Diagram, RDS.drawio.html, Google Meet, DEVOPS-Jobs, ChatGPT, and several others. The URL in the address bar is https://eu-west-2.console.aws.amazon.com/rds/home?region=eu-west-2#db-subnet-groups-list:. Below the tabs, the navigation bar includes AWS, Services, Search, and links for VPC, EC2, and RDS.

A green success message at the top of the main content area states: "Successfully modified rds-subnet-group. View subnet group".

The main content is titled "Subnet groups (1)". It features a search bar labeled "Filter by subnet group" and a table with the following columns: Name, Description, Status, and VPC. There is one entry in the table:

	Name	Description	Status	VPC
<input type="checkbox"/>	rds-subnet-group	RDS-SUBNET-GROUP	Complete	vpc-0da8fab2c2fedec3e

At the bottom of the page, there are links for CloudShell, Feedback, Language, and a footer with copyright information: © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences.

The second part of the screenshot shows a detailed view of the "rds-subnet-group" subnet group. The URL is https://eu-west-2.console.aws.amazon.com/rds/home?region=eu-west-2#db-subnet-group:id=rds-subnet-group. The navigation path is RDS > Subnet groups > rds-subnet-group. A green success message says: "Successfully modified rds-subnet-group. View subnet group".

The "rds-subnet-group" details page displays the following information:

- Subnet group details**
- VPC ID:** vpc-0da8fab2c2fedec3e
- ARN:** arn:aws:rds:eu-west-2:709398145454:subgrp:rds-subnet-group
- Supported network types:** IPv4
- Description:** RDS-SUBNET-GROUP

The footer of this section also includes links for CloudShell, Feedback, Language, and a footer with copyright information: © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences.

The screenshot shows two consecutive screenshots of the AWS RDS console interface.

**Screenshot 1: Subnet Group Configuration**

This screen shows the configuration of an RDS subnet group named "RDS-SUBNET-GROUP". It lists three subnets across different availability zones:

Availability zone	Subnet ID	CIDR block
eu-west-2c	subnet-03f67b7597c55524d	10.100.3.0/24
eu-west-2b	subnet-000887eb027525b5f	10.100.2.0/24
eu-west-2a	subnet-0e7c9230689b97a39	10.100.1.0/24

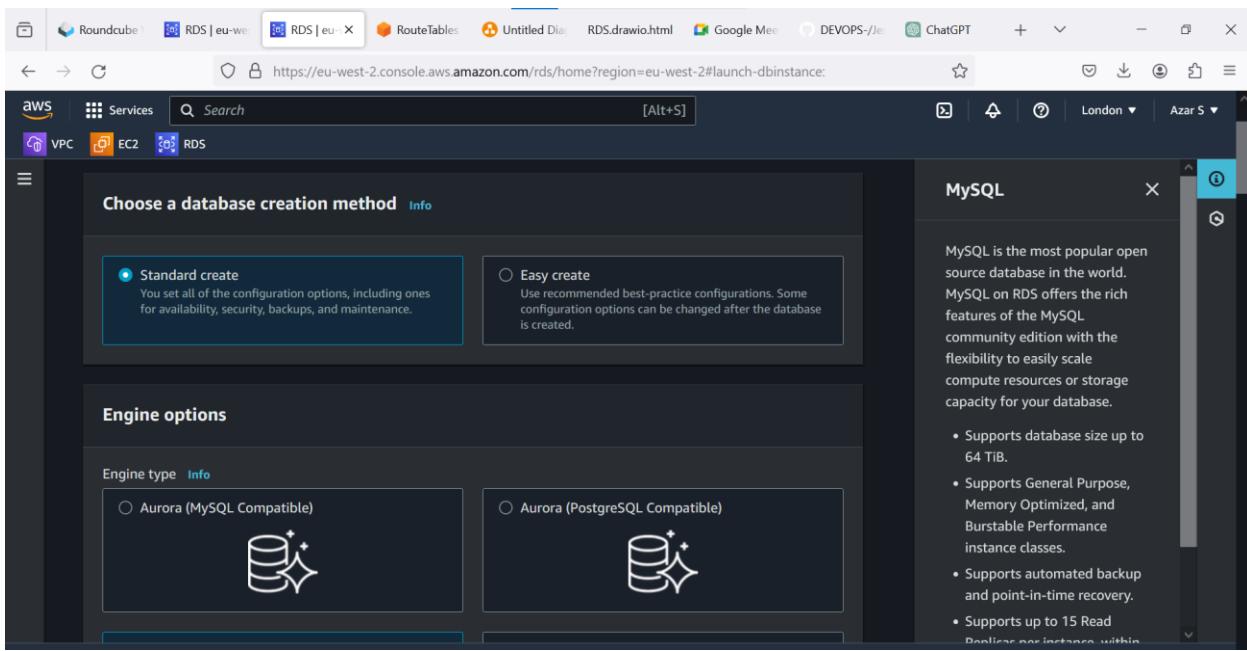
**Screenshot 2: Database Modification Confirmation**

This screen shows the confirmation of modifying the RDS subnet group. A success message states: "Successfully modified rds-subnet-group. View subnet group".

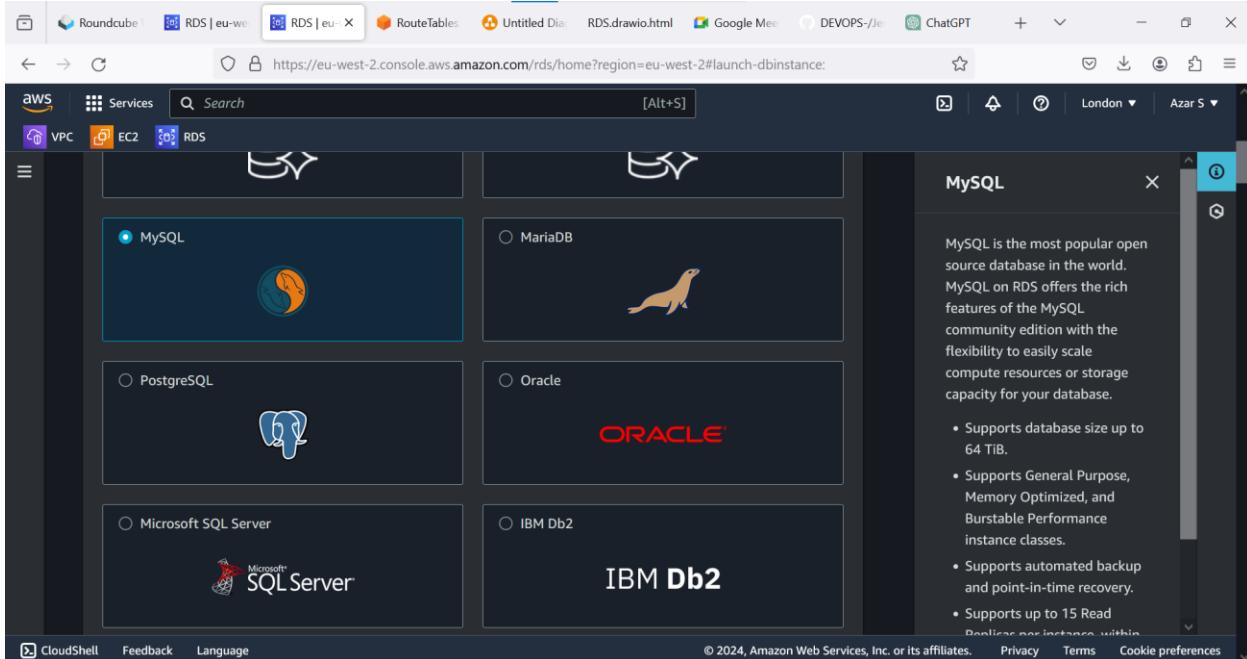
The left sidebar shows the navigation menu for the RDS service, including options like Dashboard, Databases, Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, Option groups, and Custom engine versions.

The main content area displays the "Databases" section, which lists one database entry:

DB identifier	Status	Role	Engine	Region & AZ	Size
database-1	Available	Instance	MySQL Community	eu-west-2b	db.m6gd.large



The screenshot shows the AWS RDS console interface for creating a new database instance. On the left, there's a sidebar with icons for VPC, EC2, and RDS. The main area has a title "Choose a database creation method" with two options: "Standard create" (selected) and "Easy create". Below this, under "Engine options", there are two engine type sections: "Aurora (MySQL Compatible)" and "Aurora (PostgreSQL Compatible)". To the right, a detailed description of MySQL is provided, highlighting its popularity and various features.

The screenshot shows the same AWS RDS console interface, but the main area now displays a grid of engine options. It includes MySQL (selected), MariaDB, PostgreSQL, Oracle, Microsoft SQL Server, and IBM Db2. Each option has a small icon and a brief description. To the right, the MySQL details panel remains visible.

**Known issues/limitations**  
Review the [Known issues/limitations](#) to learn about potential compatibility issues with specific database versions.

**Engine version** [Info](#)  
View the engine versions that support the following database features.

**Show versions that support the Multi-AZ DB cluster** [Info](#)  
Create a Multi-AZ DB cluster with one primary DB instance and two readable standby DB instances. Multi-AZ DB clusters provide up to 2x faster transaction commit latency and automatic failover in typically under 35 seconds.

**Show versions that support the Amazon RDS Optimized Writes** [Info](#)  
Amazon RDS Optimized Writes improves write throughput by up to 2x at no additional cost.

**Engine Version**  
MySQL 8.0.35

**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 region.

**Deployment options** [Info](#)  
The deployment options below are limited to those supported by the engine you selected above.

Single DB instance  
Creates a single DB instance with no standby DB instances.

Multi-AZ DB instance  
Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.

Multi-AZ DB Cluster

The screenshot shows the AWS RDS console interface for creating a new database instance. The left panel displays the 'Settings' section, where the 'DB instance identifier' is set to 'database-1'. Under 'Credentials Settings', the 'Master username' is 'admin', and the 'Credential management' dropdown is set to 'Self managed'. A right-hand sidebar provides information about MySQL, mentioning its popularity and various features like automated backup and up to 15 read replicas per instance.

**DB instance identifier:** database-1

**Credentials Settings:**

- Master username:** admin
- Credential management:** Self managed

**MySQL Information:**

- 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

The screenshot shows two side-by-side configurations for setting up an Amazon RDS MySQL database.

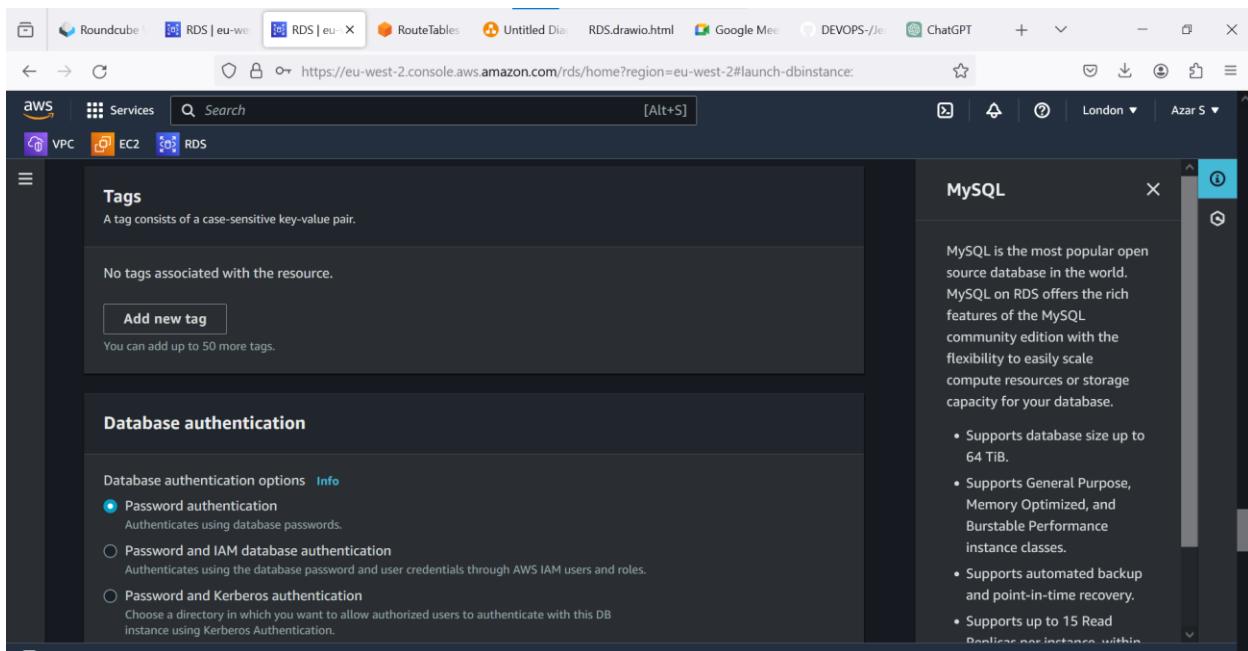
**Left Panel (Connectivity Configuration):**

- Compute resource:** Set to "Don't connect to an EC2 compute resource".
- Virtual private cloud (VPC):** Set to "RDS (vpc-0da8fab2c2fdec3e)".
- DB subnet group:** Set to "3 Subnets, 3 Availability Zones".
- Note:** "After a database is created, you can't change its VPC."

**Right Panel (MySQL Overview):**

- Description:** 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.
- Features:**
  - 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

**Bottom Navigation:** CloudShell, Feedback, Language, © 2024, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, Cookie preferences.



The screenshot shows the 'Tags' step in the AWS RDS MySQL creation wizard. It displays a summary of the selected database authentication method (Password authentication) and provides an option to add new tags. A note indicates that up to 50 more tags can be added.

**Database authentication**

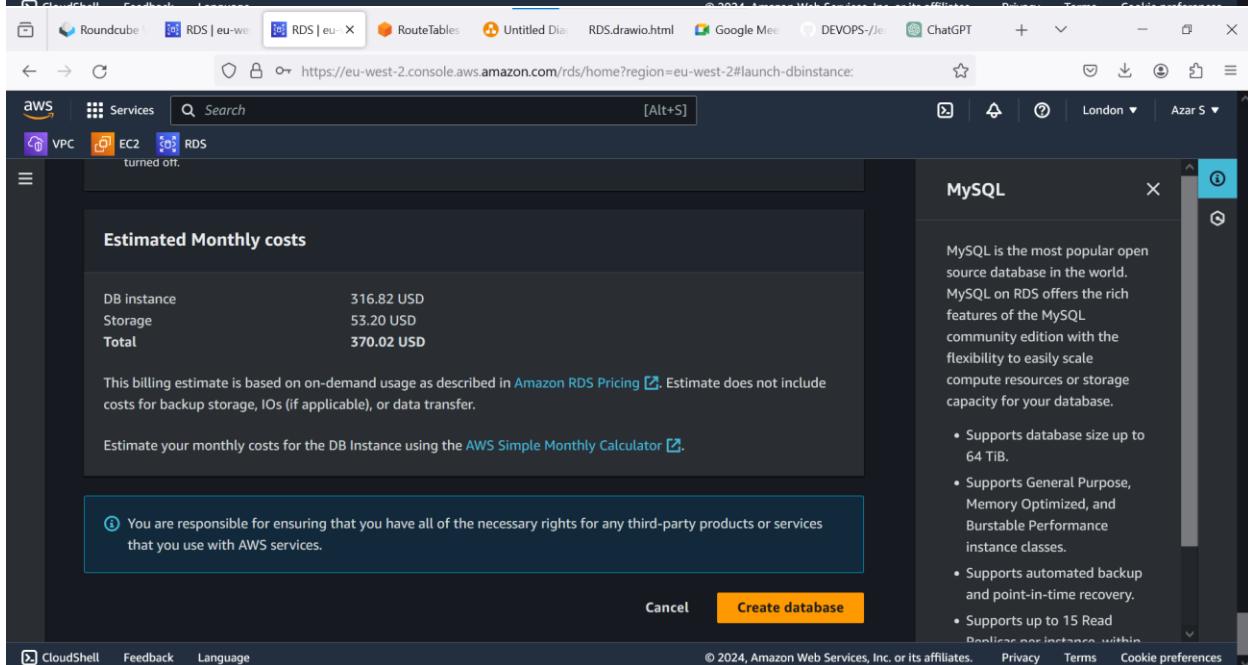
Database authentication options [Info](#)

- 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  
Choose a directory in which you want to allow authorized users to authenticate with this DB instance using Kerberos Authentication.

**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

The screenshot shows the 'Estimated Monthly costs' step in the AWS RDS MySQL creation wizard. It displays the estimated monthly costs for the chosen configuration:

DB instance	316.82 USD
Storage	53.20 USD
Total	370.02 USD

This billing estimate is based on on-demand usage as described in [Amazon RDS Pricing](#). Estimate does not include costs for backup storage, I/Os (if applicable), or data transfer.

Estimate your monthly costs for the DB Instance using the [AWS Simple Monthly Calculator](#).

**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

The screenshot displays two main sections of the AWS RDS console:

### Databases Section

This section shows a single database entry:

DB identifier	Status	Role	Engine	Region & AZ	Size
database-1	Available	Instance	MySQL Community	eu-west-2b	db.m6gd.large

### Connectivity & security Section

This section provides detailed connectivity and security information:

Endpoint & port	Networking	Security
Endpoint database-1.cfku2ea6ke3d.eu-west-2.rds.amazonaws.com Port 3306	Availability Zone eu-west-2b VPC RDS (vpc-0da8fab2c2fdec3e) Subnet group rds-subnet-group Subnets subnet-03f67b7597c55524d subnet-0e7c9230689b97a39 subnet-000887eb027525b	VPC security groups rds-vpc-sg (sg-0d8ea7e36c43f5341) Active Publicly accessible No Certificate authority Info rds-ca-rsa2048-g1 Certificate authority date May 22, 2021, 05:16 (UTC+05:30) DB instance certificate

The screenshot shows the AWS EC2 Instances page. A single instance, 'rds-server' (ID: i-02d6fc980a11a957b), is listed as 'Running' with the type 't2.micro'. A modal window titled 'Select an instance' is overlaid on the main content.

The EC2 Instances sidebar includes options like Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images.

The bottom section shows the AWS navigation bar and footer.

The screenshot shows the 'Edit inbound rules' section for a security group. It displays a table of existing rules:

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-042a73ac3db5a906b	SSH	TCP	22	Cu... ▾	Info
				<input type="text" value="0.0.0.0/0"/> X	Delete

A warning message at the bottom states: '⚠️ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP'.

The bottom section shows the AWS navigation bar and footer.

The screenshot shows the AWS EC2 Security Groups page. The left sidebar is collapsed. The main area displays a table of security groups with the following data:

Name	Security group ID	Security group name	VPC ID
-	sg-0d8ea7e36c43f5341	rds-vpc-sg	vpc-0da8fab2c2fc
-	sg-079266f8d3ee2b084	default	vpc-0da8fab2c2fc
-	sg-0192e6ae8a566e785	default	vpc-0feb92909a2

Below the table, the text "sg-0d8ea7e36c43f5341 - rds-vpc-sg" is displayed. At the bottom of the page, there are tabs for Details, Inbound rules, Outbound rules, and Tags.

### IN RDS SECURITY GROUP:

We have to enter vpc ip or ec2 ip in rds security group.

The screenshot shows the AWS CloudWatch Metrics interface. A single metric named "RDS drawio" is displayed with a value of 1.000000. The metric has a unit of "Count" and a timestamp of "2024-04-02T10:00:00Z". The chart shows the metric's value over time.

The screenshot shows the "Edit inbound rules" page for a security group. A rule is listed for MySQL/Aurora on port 3306, allowing traffic from 10.100.0.0/16. The "Add rule" button is visible at the bottom left.

The screenshot shows a terminal window titled "rds" running on MobaXterm. The user is connected to a MySQL database on an Amazon RDS instance. The session output includes:

```

Run "sudo yum update" to apply all updates.
[ec2-user@ip-10-100-0-140 ~]$ sudo su
[root@ip-10-100-0-140 ec2-user]# mysql -h database-1.cfku2ea6ke3d.eu-west-2.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 23
Server version: 8.0.35 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 |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

MySQL [(none)]> use mysql;
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 [mysql]> create table awstraining (name VARCHAR(30), batch INT(2), phone VARCHAR(30), email VARCHAR(30));
ERROR 1044 (42000): Access denied for user 'admin'@'%' to database 'mysql'
MySQL [mysql]> create database simtekway;
Query OK, 1 row affected (0.01 sec)

```

At the bottom of the terminal window, a message reads: "UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>".

```

Aborted
[root@ip-10-100-0-140 ec2-user]# mysql -h database-1.cfkuea6ke3d.eu-west-2.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 24
Server version: 8.0.35 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)]> create database simtekway;
ERROR 1007 (HY000): Can't create database 'simtekway'; database exists
MySQL [(none)]> show database;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'database' at line 1
MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| simtekway |
| sys |
+-----+
5 rows in set (0.00 sec)

MySQL [(none)]> use simtekway
Database changed
MySQL [simtekway]> create table awstraining (name VARCHAR(30), batch INT(2), phone VARCHAR(30), email VARCHAR(30));
Query OK, 0 rows affected, 1 warning (0.01 sec)

MySQL [simtekway]> insert into awstraining values('Shrikanth C R' , 2, '8884420120', 'shrikanthcr888@gmail.com');
Query OK, 1 row affected (0.01 sec)

MySQL [simtekway]> insert into awstraining values('MAADHU M.G' , 2, '9972591453', 'maadhumg3@gmail.com');
Query OK, 1 row affected (0.00 sec)

MySQL [simtekway]> select * from awstraining
-> ;
+-----+-----+-----+
| name | batch | phone | email
+-----+-----+-----+
| Shrikanth C R | 2 | 8884420120 | shrikanthcr888@gmail.com |
| MAADHU M.G | 2 | 9972591453 | maadhumg3@gmail.com |
+-----+-----+-----+
2 rows in set (0.00 sec)

MySQL [simtekway]> Ctrl-C -- exit!
Aborted
[root@ip-10-100-0-140 ec2-user]# while true; do host "database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com": sleep 3;done
bash: syntax error near unexpected token `done'
[root@ip-10-100-0-140 ec2-user]# while true; do host "database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com": sleep 3; done
> ^C
[root@ip-10-100-0-140 ec2-user]# while true; do host database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com ; sleep 3; done
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82

```

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```

5 rows in set (0.00 sec)

MySQL [(none)]> use simtekway
Database changed
MySQL [simtekway]> create table awstraining (name VARCHAR(30), batch INT(2), phone VARCHAR(30), email VARCHAR(30));
Query OK, 0 rows affected, 1 warning (0.01 sec)

MySQL [simtekway]> insert into awstraining values('Shrikanth C R' , 2, '8884420120', 'shrikanthcr888@gmail.com');
Query OK, 1 row affected (0.01 sec)

MySQL [simtekway]> insert into awstraining values('MAADHU M.G' , 2, '9972591453', 'maadhumg3@gmail.com');
Query OK, 1 row affected (0.00 sec)

MySQL [simtekway]> select * from awstraining
-> ;
+-----+-----+-----+
| name | batch | phone | email
+-----+-----+-----+
| Shrikanth C R | 2 | 8884420120 | shrikanthcr888@gmail.com |
| MAADHU M.G | 2 | 9972591453 | maadhumg3@gmail.com |
+-----+-----+-----+
2 rows in set (0.00 sec)

MySQL [simtekway]> Ctrl-C -- exit!
Aborted
[root@ip-10-100-0-140 ec2-user]# while true; do host "database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com": sleep 3;done
bash: syntax error near unexpected token `done'
[root@ip-10-100-0-140 ec2-user]# while true; do host "database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com": sleep 3; done
> ^C
[root@ip-10-100-0-140 ec2-user]# while true; do host database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com ; sleep 3; done
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82
database-1.cfkuea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.1.82

```

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The screenshot shows the AWS RDS console interface. On the left, the navigation sidebar includes options like Dashboard, Databases (which is selected), Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, Option groups, and Custom engine versions. The main content area displays the 'Summary' for the database 'database-1'. The summary table shows the following details:

DB identifier	Status	Role	Engine
database-1	Available	Instance	MySQL
	Class db.m6gd.large	Current activity 0.00 sessions	Commodity
			Region eu-west-2

Below the summary, there are tabs for Connectivity & security, Monitoring, Logs & events, and Configuration. A context menu is open on the right, listing actions such as Quick Actions - New, Convert to Multi-AZ deployment, Stop temporarily, Reboot (which is highlighted in blue), Delete, Set up EC2 connection, Set up Lambda connection, Create read replica, Create Aurora read replica, Create Blue/Green Deployment - new, Promote, Take snapshot, and Restore to point in time.

The second part of the screenshot shows a modal dialog titled 'Reboot DB Instance'. It contains a section for 'DB Instances' with the question 'Are you sure you want to reboot these DB Instance(s)?' followed by a list of instances: 'database-1'. There is a checked checkbox labeled 'Reboot With Failover?'. At the bottom of the dialog are 'Cancel' and 'Confirm' buttons.

The screenshot shows the AWS RDS console interface. On the left, a sidebar lists options like Dashboard, Databases (selected), Query Editor, Performance insights, Snapshots, Exports in Amazon S3, Automated backups, Reserved instances, and Proxies. The main area displays the 'database-1' summary, which includes details such as DB identifier (database-1), Status (Available), Role (Instance), Engine (MySQL Community), and Recommendations (Region & AZ eu-west-2b). Below the summary, tabs for Connectivity & security, Monitoring, Logs & events, Configuration, and Maintenance & backups are visible. At the bottom of the RDS interface, there are links for CloudShell, Feedback, and Language, along with copyright information for 2024, Privacy, Terms, and Cookie preferences.

The MobaXterm terminal window below shows a MySQL session connected to the database-1 instance. The session starts with a quick connect to '2.rds'. It then lists multiple user sessions, all connected to the same database instance. The user then runs a MySQL command to connect to the database:

```

[root@ip-10-100-0-140 ec2-user]# mysql -h database-1.cfk2ea6ke3d.eu-west-2.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 10
Server version: 8.0.35 Source distribution

```

UNREGISTERED VERSION - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

```

rds
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Quick connect...
User sessions
JENKINS
Jenkins new server
Prashanth server
rds
Tomcat server
tommy
2 rds
3 rds
database-1.cfku2ea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.2.80
database-1.cfku2ea6ke3d.eu-west-2.rds.amazonaws.com has address 10.100.2.80
```
[root@ip-10-100-0-140 ec2-user]# mysql -h database-1.cfku2ea6ke3d.eu-west-2.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 10
Server version: 8.0.35 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 |
+-----+
| information_schema |
| mysql |
| performance_schema |
| simtekway |
| sys |
+-----+
5 rows in set (0.01 sec)

MySQL [(none)]> use simtekway;
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 [simtekway]> select * from awstraining;
+-----+-----+-----+
| name | batch | phone | email |
+-----+-----+-----+

```

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```

rds
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Quick connect...
User sessions
JENKINS
Jenkins new server
Prashanth server
rds
Tomcat server
tommy
2 rds
3 rds
Your MySQL connection id is 10
Server version: 8.0.35 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 |
+-----+
| information_schema |
| mysql |
| performance_schema |
| simtekway |
| sys |
+-----+
5 rows in set (0.01 sec)

MySQL [(none)]> use simtekway;
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 [simtekway]> select * from awstraining;
+-----+-----+-----+
| name | batch | phone | email |
+-----+-----+-----+
| Shrikanth C R | 2 | 8884420120 | shrikanthcr888@gmail.com |
| MAADHU M.G | 2 | 9972591453 | maadhung@gmail.com |
+-----+-----+-----+
2 rows in set (0.01 sec)

```

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## SQL COMMANDS:

### Connect rds with ec2 :

mysql -h rds.cfku2ea6ke3d.eu-west-2.rds.amazonaws.com -P 3306 -u admin -p admin123

### Create Database:

create database simtekway;

```
show databases;  
use simtekway;
```

## **Create Table:**

```
create table awstraining (name VARCHAR(30), batch INT(2), phone VARCHAR(30), email  
VARCHAR(30));  
  
show tables;  
  
insert into awstraining values('Shrikanth C R' , 2, '8884420120', 'shrikanthcr888@gmail.com');  
  
insert into awstraining values('MAADHU M.G' , 2, '9972591453', 'maadhumg3@gmail.com');  
  
select * from awstraining;
```

By using below command we will see the output, whenever failure happens it will shift to another availability zone.

```
while true; do host database-1.cfku2ea6ke3d.eu-west-2.rds.amazonaws.com ; sleep 3; done
```