

4.Create a RDS and set it up to access it with phpmyadmin in Browser

Step 1: Create an Amazon RDS MySQL Instance

1. Log in to the Aws management console.
 2. Navigate to RDS:
 - go to the dashboard and click on “create database”
 - choose the “Standard Create” option.
 - select “MySQL” as the database engine.
- Configure Settings:**
- DB instance identifier: Choose a name for your databse instance
E.g :Exampledb

- Master username: admin
- Master password: *****
- DB instance class: dbt3.micro for free tier.

Storage: Configure storage options

Connectivity: Choose the VPC where your EC2 instance is running.

Public accessible: select “yes”

Security group: create a new security group or choose an existing one to allow traffic from your EC2 instance. Ensure the security group allows inbound traffic on port 3306(MySQL).

Database Options:

- Database name: (Optional) Set a name for your initial database.

Backup, Monitoring, and Maintenance:

- Configure backup and monitoring options as needed.
- Enable auto minor version upgrade if desired.

Create Database:

- Review all settings and click "Create database".

Step 2: Launch and Set Up PhpMyAdmin on an EC2 Instance

1. Launch an EC2 Instance:
2. Navigate to the EC2 service.
3. Click “Launch Instance”.
4. Choose an Amazon Machine Image (AMI), such as Ubuntu or Amazon Linux 2.
5. Select t2.micro instance type (free tier eligible).
6. Configure the security group to allow inbound traffic on port 80 (HTTP) and 22 (SSH), as well as port 3306 to connect to the RDS instance
7. Once the instance is running, connect to it using SSH.

Commands:

```
1 sudo apt update
2 sudo apt install apache2 -y
3 sudo systemctl start apache2
4 sudo systemctl enable apache2
5 sudo apt install php libapache2-mod-php php-mysql -y
6 sudo apt install phpmyadmin -y
7 sudo mysql
8 sudo mysql_secure_installation
9 sudo systemctl status mysql
10 sudo systemctl start mysql
11 sudo systemctl enable mysql
12 clear
```

```

13 sudo apt-get update
14 sudo apt-get install mysql-server -y
15 sudo mysql_secure_installation
16 sudo mysql -u root -p
17 sudo apt install phpmyadmin -y
18 sudo systemctl restart apache2
19 sudo apt update
20 sudo apt install phpmyadmin -y
21 sudo ln -s /usr/share/phpmyadmin /var/www/html/phpmyadmin
22 sudo systemctl restart apache2
23 clear
24 sudo systemctl status apache2
25 clear
26 sudo apt install phpmyadmin -y
27 sudo chown -R www-data:www-data /usr/share/phpmyadmin
28 sudo chmod -R 755 /usr/share/phpmyadmin
29 sudo mysql -u root -p
30 sudo systemctl restart apache2
31 sudo nano /etc/phpmyadmin/config.inc.php

```

Content in the file:

```

* Authentication type */
$cfg['Servers'][$i]['auth_type'] = 'cookie';

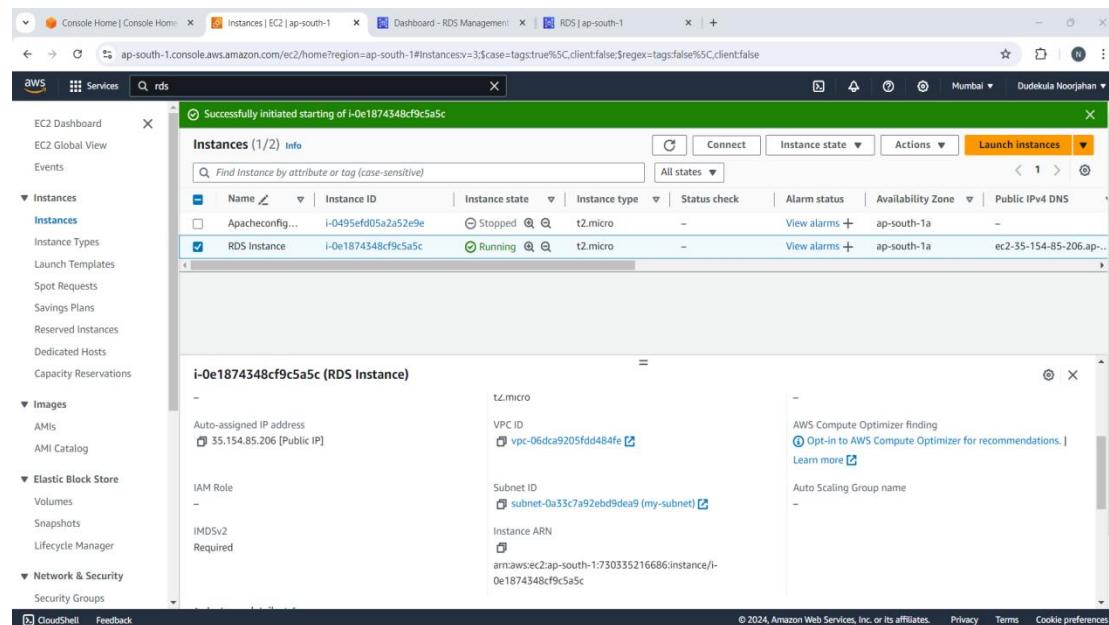
/* Server parameters */
$cfg['Servers'][$i]['host'] = 'localhost';
$cfg['Servers'][$i]['user'] = 'phpmyadmin'; // or 'admin' if that's what you're using
$cfg['Servers'][$i]['password'] = 'Admin!@123'; // ensure this matches the password set in MySQL

```

32 sudo systemctl restart apache2
33 history

Step 3: Access phpMyAdmin and Configure the Database.

- Open your browser and navigate to <http://35.154.85.206/phpmyadmin>.
- Log in with the RDS master username (admin) and password.



Screenshot of the AWS CloudShell interface showing the successful initiation of an RDS instance.

Instances (1/2) Info

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
Apacheconfig...	i-0495ef05a2a52e9e	Stopped	t2.micro	-	View alarms	ap-south-1a	-
RDS Instance	i-0e1874348cf9c5a5c	Running	t2.micro	-	View alarms	ap-south-1a	ec2-35-154-85-206.ap...

i-0e1874348cf9c5a5c (RDS Instance)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

Instance summary

Instance ID i-0e1874348cf9c5a5c (RDS Instance)	Public IPv4 address 35.154.85.206 open address	Private IP4 addresses 172.31.60.179
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-35-154-85-206.ap-south-1.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-60-179.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-60-179.ap-south-1.compute.internal	

Screenshot of the AWS CloudShell interface showing the configuration of an Amazon RDS database.

Databases

exampledb

Summary

DB identifier exampledb	Status Available	Role Instance	Engine MySQL Community	Recommendations 2 Informational
CPU 2.94%	Class db.t3.micro	Current activity 0 Connections	Region & AZ ap-south-1b	

Connectivity & security

Endpoint & port	Networking	Security
Endpoint exampledb.cjsgiseeluyr.ap-south-1.rds.amazonaws.com	Availability Zone ap-south-1b	VPC security groups default (sg-0e0fa6f1678846ea9) Active
Port 3306	VPC vpc-06dca9205fdd484fe	Publicly accessible Yes
	Subnet group	

Screenshot of the AWS CloudShell interface showing a MySQL session on the RDS instance.

```
All done!
ubuntu@ip-172-31-60-179:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.39-ubuntu0.24.04.1 (Ubuntu)

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owners.

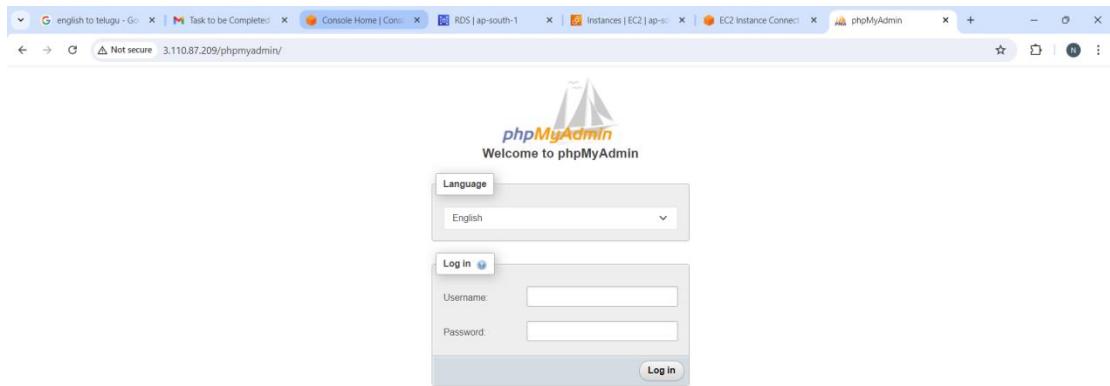
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> \c
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

mysql> exit
Bye
ubuntu@ip-172-31-60-179:~$
```

i-0e1874348cf9c5a5c (RDS Instance)

Public IPs: 3.110.87.209 Private IPs: 172.31.60.179



This screenshot displays the main configuration page of phpMyAdmin. On the left, there's a sidebar with icons for "New", "information_schema", "mysql", "performance_schema", and "sys". The main area is divided into several sections: "General settings" (Change password, Server connection collation set to "utf8mb4_unicode_ci"), "Appearance settings" (Language set to English, Theme set to "pnahomme"), "Database server" (Server: Localhost via UNIX socket, Server type: MySQL, Server connection: SSL is not being used, Server version: 8.0.39-0ubuntu0.24.04.1 - (Ubuntu), Protocol version: 10, User: phpmyadmin@localhost, Server charset: UTF-8 Unicode (utf8mb4)), "Web server" (Apache 2.4.58 (Ubuntu), Database client version: libmysql - mysqld 8.3.6, PHP extension: mysqli curl mbstring sodium, PHP version: 8.3.6), and "phpMyAdmin" (Version information: 5.2.1deb3, Documentation, Official Homepage, Contribute, Get support, List of changes, License).