

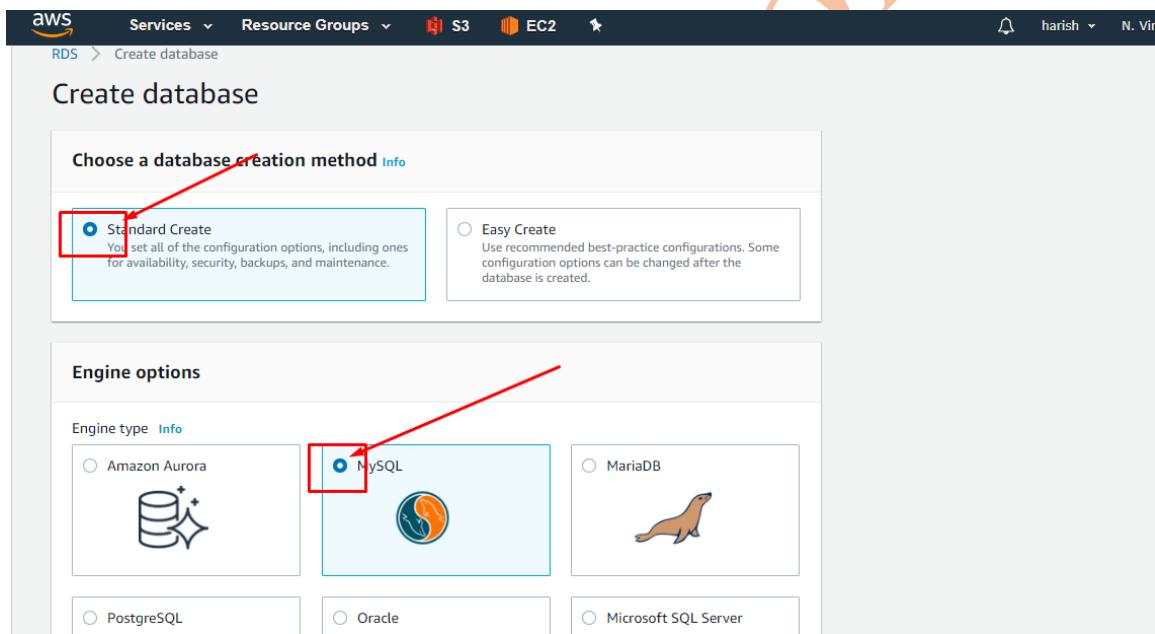
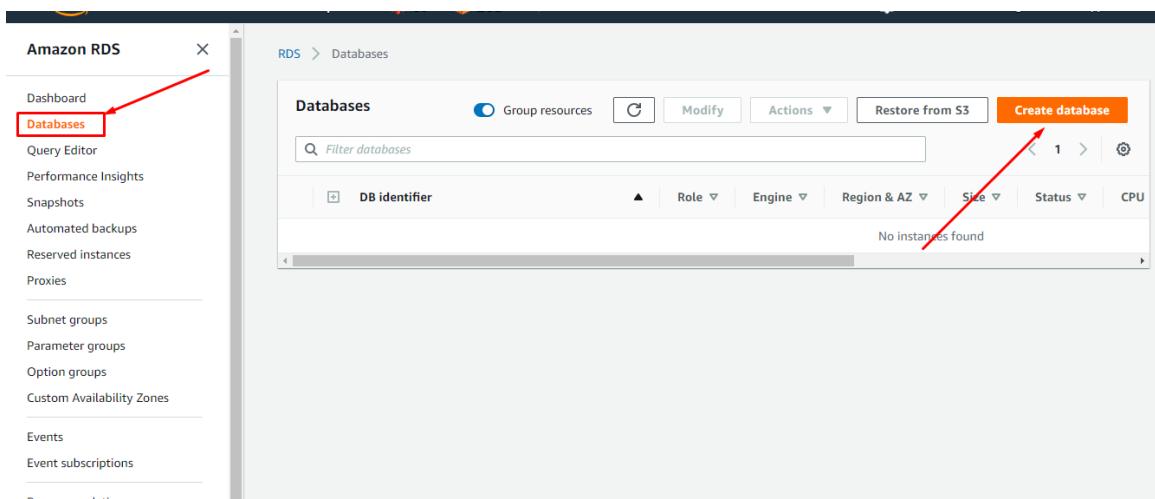
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1. Working with RDS

The screenshot shows the AWS RDS Dashboard for the US East (N. Virginia) region. The left sidebar lists various RDS services: Dashboard, Databases, Query Editor, Performance Insights, Snapshots, Automated backups, Reserved instances, Proxies, Subnet groups, and Parameter groups. The main panel displays RDS resources, including DB Instances (0/40), DB Clusters (0/40), Reserved instances (0/40), Snapshots (0), Recent events (0), and Event subscriptions (0/20). It also shows Parameter groups (0), Option groups (0), Subnet groups (0/50), Supported platforms VPC, and Default network vpc-fae81987. A large orange arrow points from the text "DB Instances (0/40)" to the "DB Instances (0/40)" link in the main content area.

Resources	
You are using the following Amazon RDS resources in the US East (N. Virginia) region (used/quota)	
DB Instances (0/40)	Parameter groups (0)
Allocated storage (0 TB/100 TB)	Default (0)
Click here to increase DB instances limit	Custom (0/100)
DB Clusters (0/40)	Option groups (0)
Reserved instances (0/40)	Default (0)
Snapshots (0)	Custom (0/20)
Manual (0/100)	Subnet groups (0/50)
Automated (0)	Supported platforms VPC
Recent events (0)	Default network vpc-fae81987
Event subscriptions (0/20)	

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A screenshot of the AWS RDS MySQL creation wizard. At the top, it shows the 'Edition' as 'MySQL Community' and the 'Version' as 'MySQL 8.0.17'. A red arrow points from the text 'Select your required version' to the 'Version' dropdown menu. Below this, there's a section titled 'Known Issues/Limitations' with a note about reviewing compatibility issues. The 'Templates' section is visible at the bottom.

A screenshot of the AWS RDS MySQL creation wizard showing the 'Templates' section. It offers three options: 'Production', 'Dev/Test' (which is selected and highlighted with a red box), and 'Free tier'. The 'Settings' section is partially visible below.

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The screenshot shows the 'Settings' page for creating a new DB instance. The 'DB instance identifier' is set to 'dvsbatch4-mysqlserver'. Under 'Credentials Settings', the 'Master username' is 'admin' and the 'Master password' is '*****'. The 'Confirm password' field also contains '*****'. A red box highlights the 'DB instance identifier' input field.

The screenshot shows the 'DB instance size' configuration. The 'DB instance class' is selected as 'Burstable classes (includes t classes)' with 'db.t2.micro' chosen. Under 'Storage', the 'Storage type' is 'General Purpose (SSD)' and the 'Allocated storage' is set to 20 GiB. A red box highlights the 'DB instance size' input field.

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Storage autoscaling [Info](#)
Provides dynamic scaling support for your database's storage based on your application's needs.

Enable storage scaling
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

GiB
Minimum: 21 GiB, Maximum: 16384 GiB

aws Services Resource Groups S3 EC2

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

Only VPCs with a corresponding DB subnet group are listed.

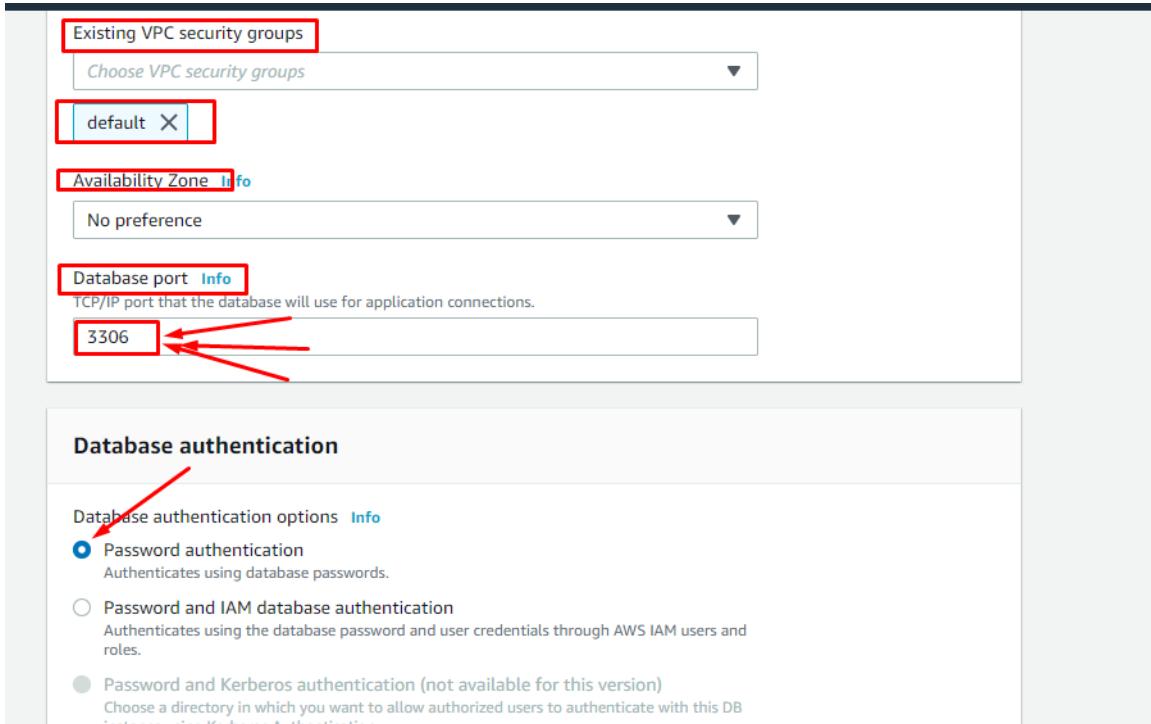
Additional connectivity configuration

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

Publicly accessible [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.

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The screenshot shows the AWS Database configuration interface. At the top, there's a section for 'Existing VPC security groups' with a dropdown menu containing 'default'. Below it is an 'Availability Zone' dropdown set to 'No preference'. Under 'Database port', the value '3306' is entered. A red box highlights the '3306' input field, and a red arrow points to it from the bottom left. In the middle of the screen, there's a 'Database authentication' section with three options: 'Password authentication' (selected), 'Password and IAM database authentication', and 'Password and Kerberos authentication (not available for this version)'. A red arrow points to the first option, 'Password authentication'.

Existing VPC security groups

Choose VPC security groups

default X

Availability Zone [Info](#)

No preference

Database port [Info](#)

TCP/IP port that the database will use for application connections.

3306

Database authentication

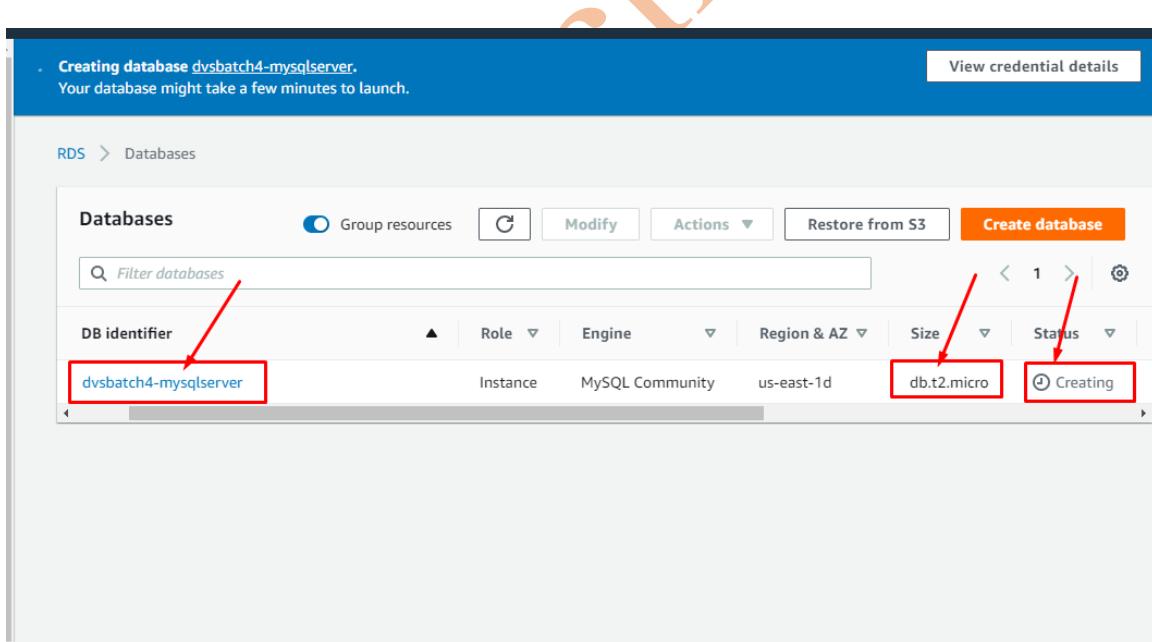
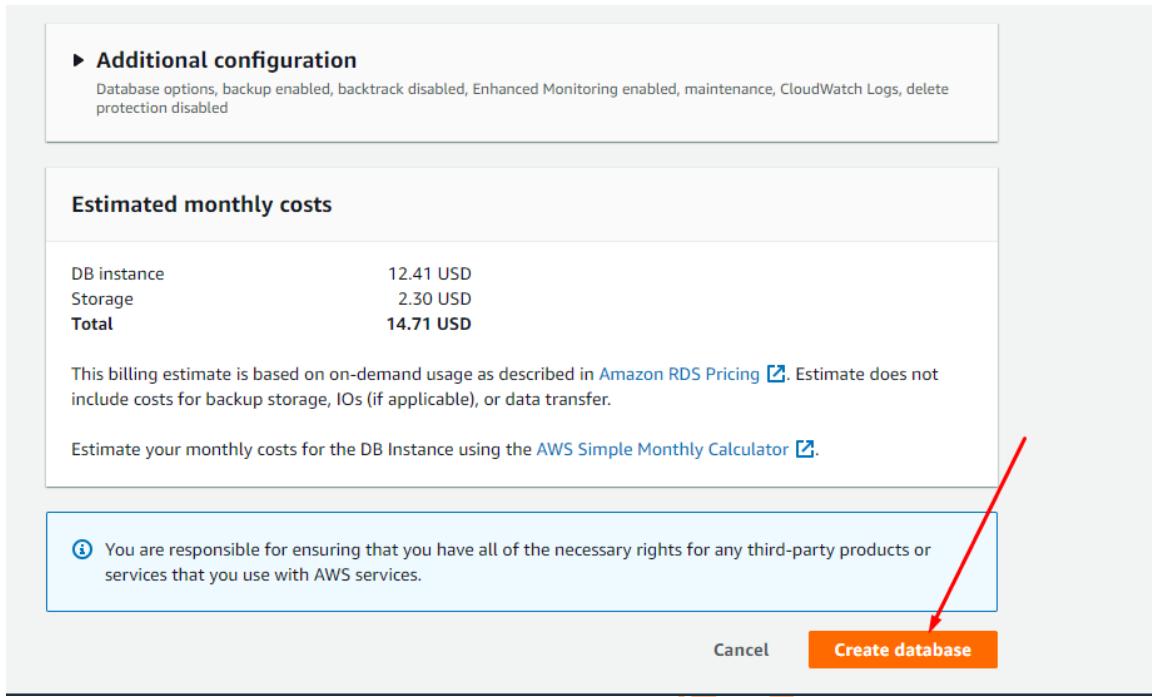
Database authentication options [Info](#)

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

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Launch one Ec2 and install the mysql client package as below:

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1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to instance, and more.

Number of instances: 1 Launch into Auto Scaling Group:

Purchasing option: Request Spot instances

Network: vpc-fae81987 | DONT_DELETE (default)

Subnet: No preference (default subnet in any Availability Zone)

Auto-assign Public IP: Use subnet setting (Enable)

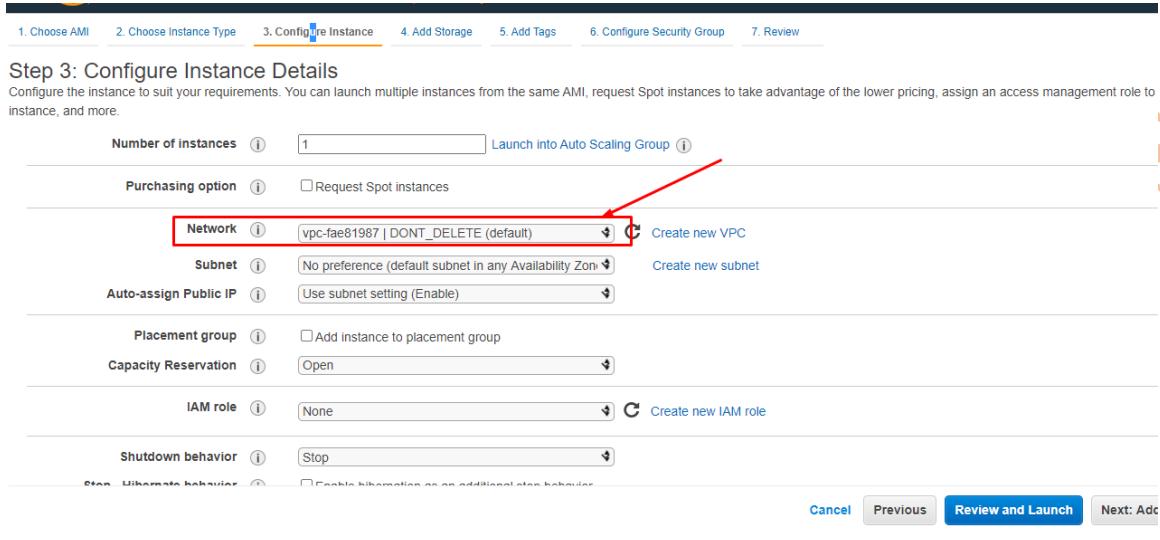
Placement group: Add instance to placement group

Capacity Reservation: Open

IAM role: None

Shutdown behavior: Stop Enable hibernation as an additional stop behavior

Cancel Previous **Review and Launch** Next: Add



1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags **6. Configure Security Group** 7. Review

Step 6: Configure Security Group
A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

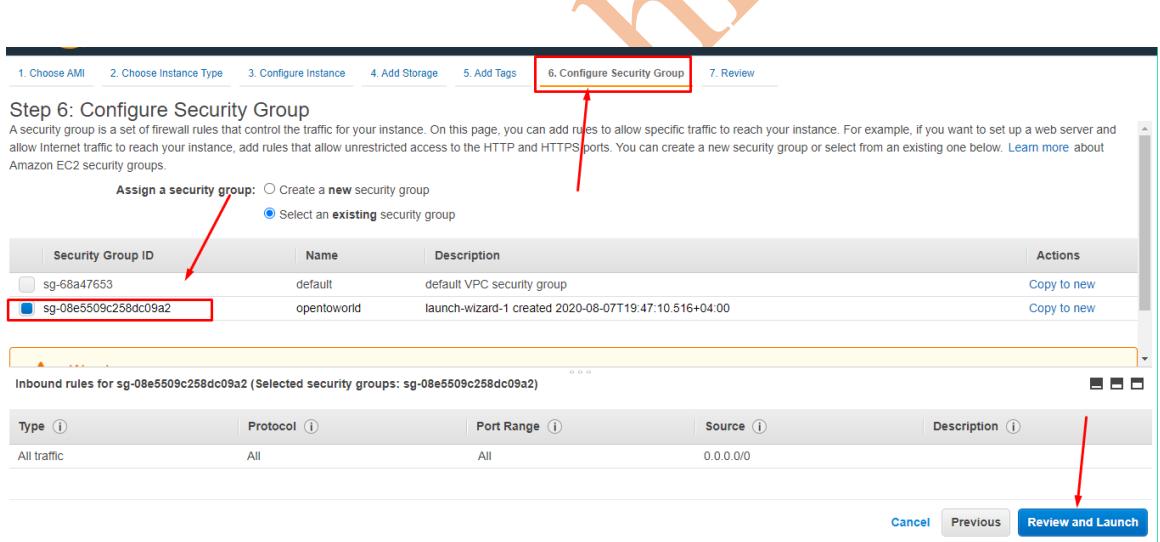
Assign a security group: Create a new security group Select an existing security group

Security Group ID	Name	Description	Actions
<input type="checkbox"/> sg-68a47653	default	default VPC security group	Copy to new
<input checked="" type="checkbox"/> sg-08e5509c258dc09a2	opentoworld	launch-wizard-1 created 2020-08-07T19:47:10.516+04:00	Copy to new

Inbound rules for sg-08e5509c258dc09a2 (Selected security groups: sg-08e5509c258dc09a2)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

Cancel Previous **Review and Launch**



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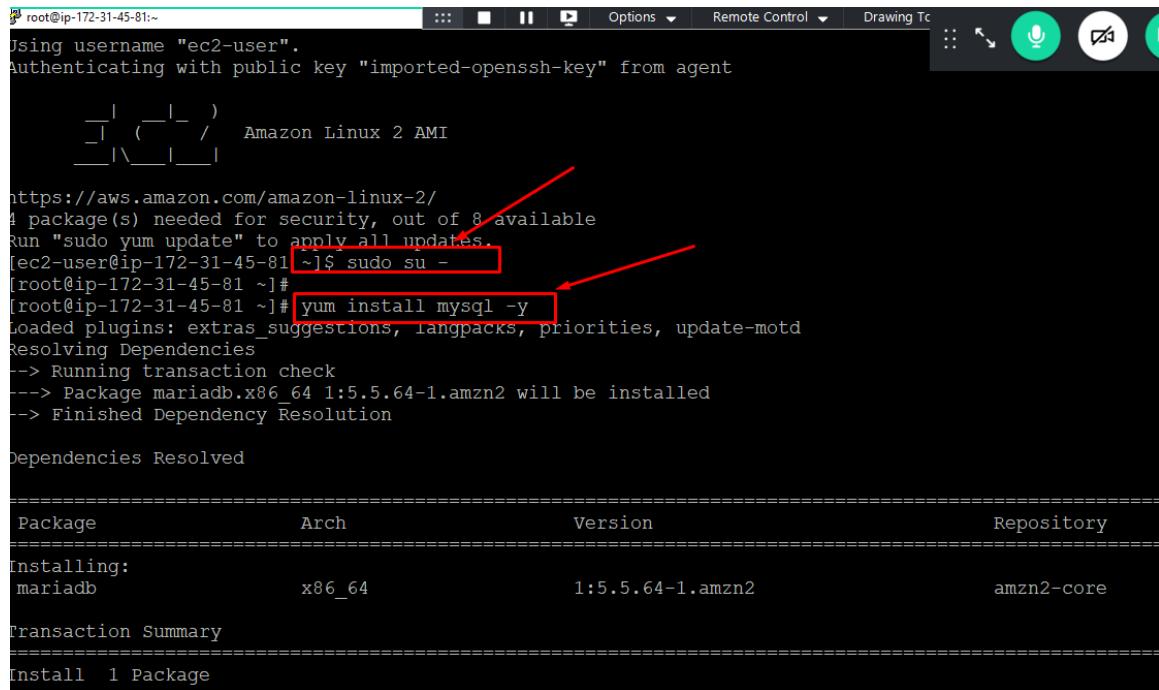
The screenshot shows the 'Edit instance type' step of the AWS EC2 Launch Instance wizard. The 'Network Performance' section is selected, showing 'Low to Moderate'. Below the section are 'Cancel', 'Previous', and 'Launch' buttons. A red arrow points from the 'Launch' button to the EC2 console screenshot below.

EC2 Console Screenshot:

- Instance Details:** Name: Myappserver, Instance ID: i-0e13210775d99ac5d, Instance Type: t2.micro, Availability Zone: us-east-1a, Instance State: running (highlighted with a red box), Status Checks: Initializing, Alarm Status: None.
- Instance Description:**

Instance ID	i-0e13210775d99ac5d	Public DNS (IPv4)	ec2-3-81-158-216.compute-1.amazonaws.com
Instance state	running	IPv4 Public IP	3.81.158.216
Instance type	t2.micro	IPv6 IPs	-
Finding	Opt-in to AWS Compute Optimizer for recommendations. Learn more	Elastic IPs	-
Private DNS	ip-172-31-45-81.ec2.internal	Availability zone	us-east-1a

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The screenshot shows a terminal session on an Amazon Linux 2 AMI. The user logs in as 'ec2-user' and runs 'sudo su -' to become root. Then, they run 'yum install mysql -y' to install MySQL. The terminal output includes package details and a transaction summary.

```
root@ip-172-31-45-81:~ Using username "ec2-user". Authenticating with public key "imported-openssh-key" from agent
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
4 package(s) needed for security, out of 8 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-45-81 ~]$ sudo su -
[root@ip-172-31-45-81 ~]#
[root@ip-172-31-45-81 ~]# yum install mysql -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package mariadb.x86_64 1:5.5.64-1.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
| Package           | Arch | Version | Repository |
|=====|
| Installing:      |
| mariadb          | x86_64 | 1:5.5.64-1.amzn2 | amzn2-core |
|=====|
| Transaction Summary |
|=====|
| Install 1 Package |
|=====|
```

Logging in to the RDS server:

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The screenshot shows the AWS RDS Databases page. At the top, a blue banner indicates "Creating database dvsbatch4-mysqlserver. Your database might take a few minutes to launch." On the right, there is a "View credentials" button. Below the banner, the navigation bar shows "RDS > Databases". The main area is titled "Databases" and contains a table with columns: DB identifier, Instance, Role, Engine, Region & AZ, and Size. A red arrow points from the "DB identifier" column header to the "dvsbatch4-mysqlserver" entry in the table. The "Create database" button is visible on the far right of the table header.

The screenshot shows the AWS RDS database details page for "dvsbatch4-mysqlserver". The left sidebar lists various AWS services, and the main panel shows the "Summary" tab. The "DB identifier" is listed as "dvsbatch4-mysqlserver". A red arrow points from the "DB identifier" text to the "Summary" section. In the "Connectivity & security" tab, the "Endpoint & port" section is highlighted with a red box, and a red arrow points from it to the "Endpoint" value. The endpoint value is "dvsbatch4-mysqlserver.cvej7etjrm1k.us-east-1.rds.amazonaws.com". A handwritten note "copy it" is written next to this endpoint value. Other tabs include "Monitoring", "Logs & events", "Configuration", "Maintenance & backups", and "Tags".

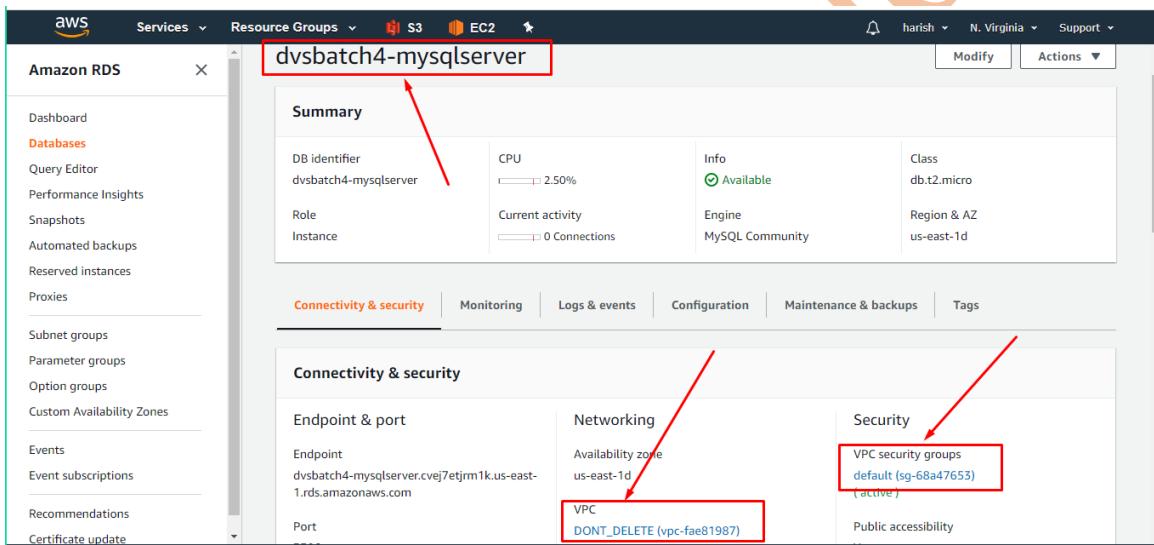
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```
[root@ip-172-31-45-81 ~]# mysql -h dvsbatch4-mysqlserver.cvej7etjrm1k.us-east-1.rds.amazonaws.com -u admin -padmin123 -P 3306
```

Handwritten annotations on the command line:

- host**: points to the host name `dvsbatch4-mysqlserver.cvej7etjrm1k.us-east-1.rds.amazonaws.com`.
- user**: points to the user name `admin`.
- password**: points to the password `admin123`.
- port**: points to the port number `3306`.
- (It's Capital P)**: points to the capital letter `P` in the port number.

Issue here is my database is not responding to my request, we need to make sure that in our RDS security group
We are opening our port 3306. Follow the below steps to resolve the issue.



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The screenshot shows the AWS EC2 Security Groups page. A search bar at the top contains "search: sg-68a47653". Below it is a table with columns: Name, Security group ID, Security group name, VPC ID, and Description. One row is highlighted in blue, corresponding to the search result. A red arrow points from the search bar to the "sg-68a47653" entry in the table.

The screenshot shows the details for the security group "sg-68a47653 - default". It includes fields for Security group name (default), Security group ID (sg-68a47653), Description (default VPC security group), VPC ID (vpc-fae81987), Owner (907814406801), and rule counts (Inbound: 1 Permission entry, Outbound: 1 Permission entry). Below this, there are tabs for Inbound rules, Outbound rules, and Tags. The Inbound rules table has columns: Type, Protocol, Port range, Source, and Description - optional. A handwritten note "chang it To 0-0-0-0/0" is written above the Source column. A red arrow points from this note to the "sg-68a47653 (default)" entry in the Source column.

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The screenshot shows the AWS Security Groups console for the security group 'sg-68a47653 - default'. The 'Details' tab is selected, displaying information such as the security group name ('default'), ID ('sg-68a47653'), description ('default VPC security group'), owner ('907814406801'), and VPC ID ('vpc-fae81987'). Below the details, the 'Inbound rules' tab is selected, showing a single rule: 'All traffic' on 'All' ports from 'sg-68a47653 (default)'. An orange arrow points from the 'Edit inbound rules' button to the 'Edit inbound rules' modal.

The screenshot shows the 'Edit inbound rules' modal. It allows adding a new rule with fields for Type (All traffic), Protocol (All), Port range (All), Source (Custom, 0.0.0.0/0), and Description (optional). A note at the bottom states: '⚠️ NOTE: Any edits made on existing rules will result in the edited rule being deleted and a new rule created with the new details. This will cause traffic that depends on that rule to be dropped for a very brief period of time until the new rule can be created.' An orange arrow points from the 'Save rules' button to the 'Save rules' button in the modal.

Post security group changes:

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```
[root@ip-172-31-45-81 ~]# mysql -h dvsbatch4-mysqlserver.cvej7etjim1k.us-east-1.rds.amazonaws.com -u admin -padmin123 -P 3306
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 8.0.17 Source distribution

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

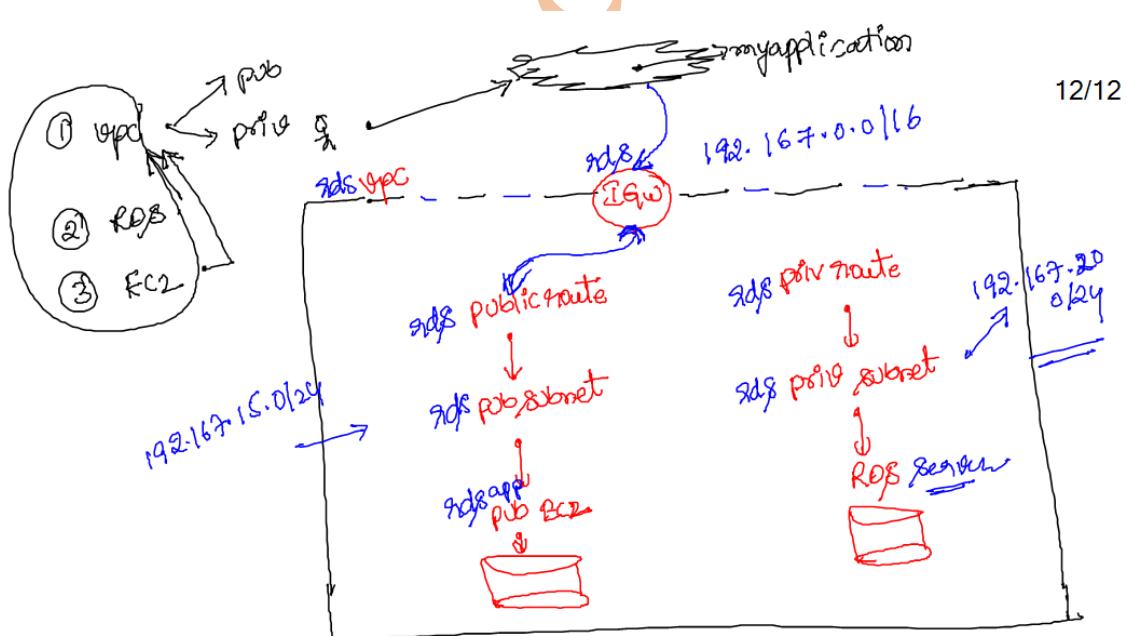
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
+-----+
3 rows in set (0.01 sec)

MySQL [(none)]> create database dvsbatch4;
Query OK, 1 row affected (0.01 sec)

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| dvsbatch4 |
| information_schema |
+-----+
```

2. RDS with own VPC

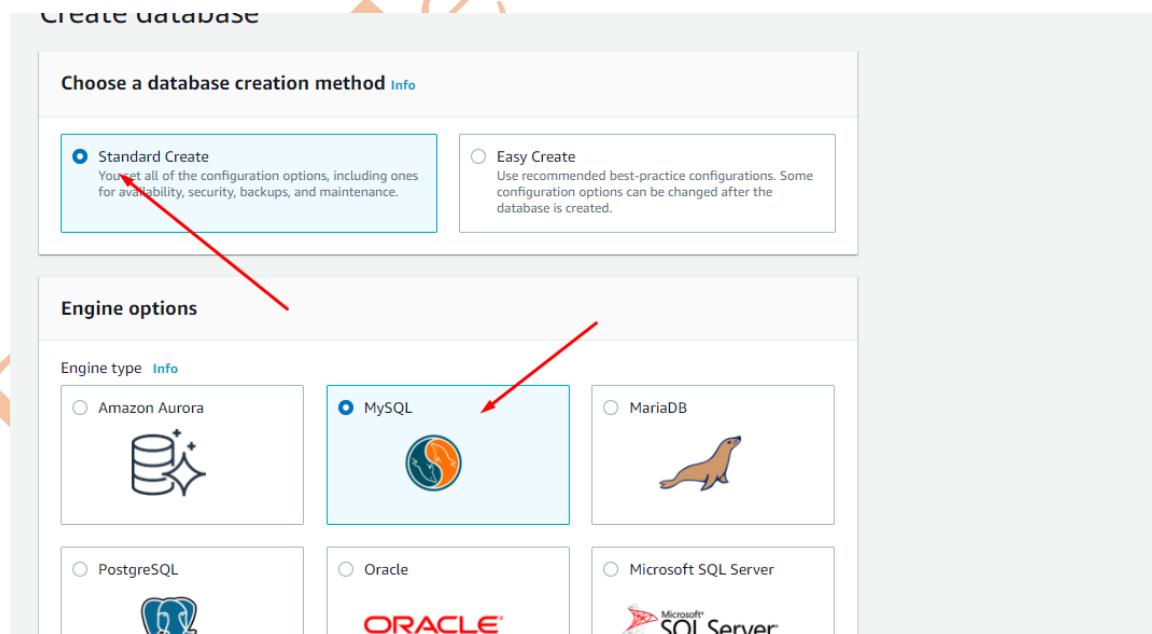
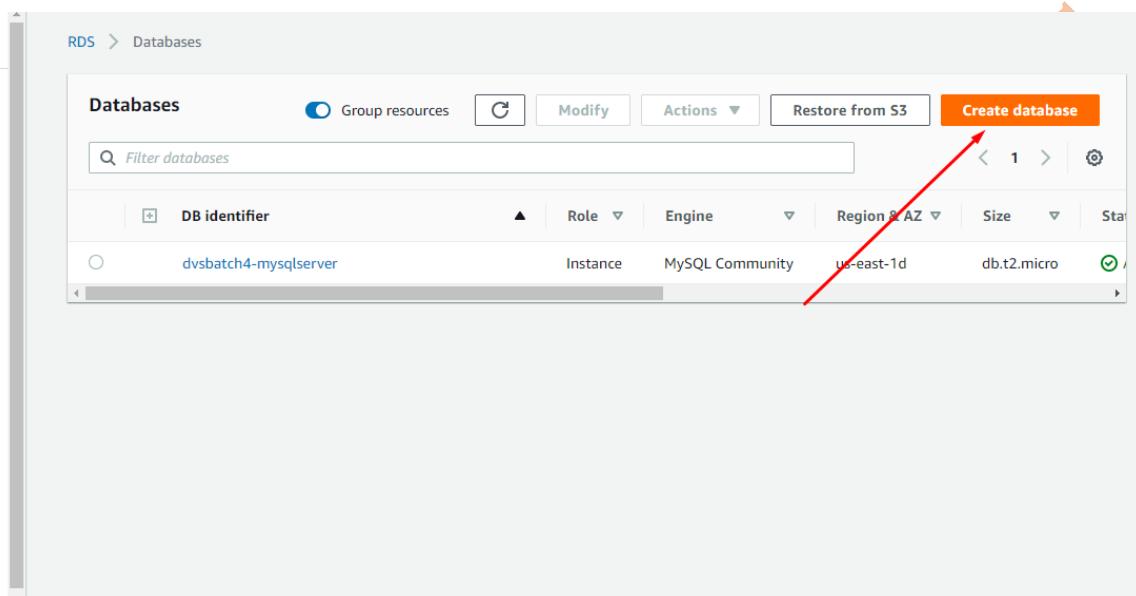


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1. Please create VPC as per the above picture

NOTE: Make sure that you are noting down the Availability zone details properly for your subnets

2. Create RDS



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The screenshot shows the initial configuration step for a new MySQL database instance. At the top, it specifies the Edition as 'MySQL Community' and the Version as 'MySQL 8.0.17'. A red arrow points from the 'Version' dropdown to the 'Known Issues/Limitations' section, which contains a note about reviewing compatibility issues. Below this, there's a 'Templates' section with three options: 'Production', 'Dev/Test' (which is selected), and 'Free tier'. Another red arrow points from the 'Dev/Test' template description to the 'DB instance identifier' field in the AWS RDS settings page below.

This screenshot shows the 'Settings' tab for creating a new MySQL DB instance. It includes fields for the 'DB instance identifier' (set to 'rdsserver-withcustomvpc'), 'Master username' (set to 'admin'), 'Master password' (a masked password), and 'Confirm password' (also a masked password). A red arrow points from the 'DB instance identifier' field to the 'DB instance identifier' field in the previous screenshot. Another red arrow points from the 'Master password' field to the 'Master password' field in the previous screenshot. The AWS navigation bar at the top includes 'Services', 'Resource Groups', 'S3', 'EC2', and a user profile for 'harish'.

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The screenshot shows the AWS Database Configuration Wizard interface. It consists of several stacked configuration sections:

- DB instance size**:
 - DB instance class: db.t2.micro (selected), 1 vCPU, 1 GiB RAM, Not EBS Optimized.
 - Include previous generation classes:
- Storage**:
 - Storage type: General Purpose (SSD)
 - Allocated storage: 20 GiB (Minimum: 20 GiB, Maximum: 16384 GiB)
- Storage autoscaling**:
 - Enable storage autoscaling: (Enabling this feature will allow the storage to increase once the specified threshold is exceeded.)
 - Maximum storage threshold: 1000 GiB (Minimum: 21 GiB, Maximum: 16384 GiB)
- Availability & durability**:
 - Multi-AZ deployment:
 - Create a standby instance (recommended for production usage):
 - Do not create a standby instance (selected):
- Connectivity**: (This section is partially visible at the bottom)

Red arrows highlight specific configuration choices: the selected DB instance class (Burstable classes), the selected storage type (General Purpose (SSD)), the checked checkbox for enabling storage autoscaling, and the selected radio button for Multi-AZ deployment (Do not create a standby instance).

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Connectivity

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

▼
Only VPCs with a corresponding DB subnet group are listed.

After a database is created, you can't change the VPC selection.

Additional connectivity configuration

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

▼

Publicly accessible [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.

Additional connectivity configuration

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

▼

Publicly accessible [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.

Existing VPC security groups

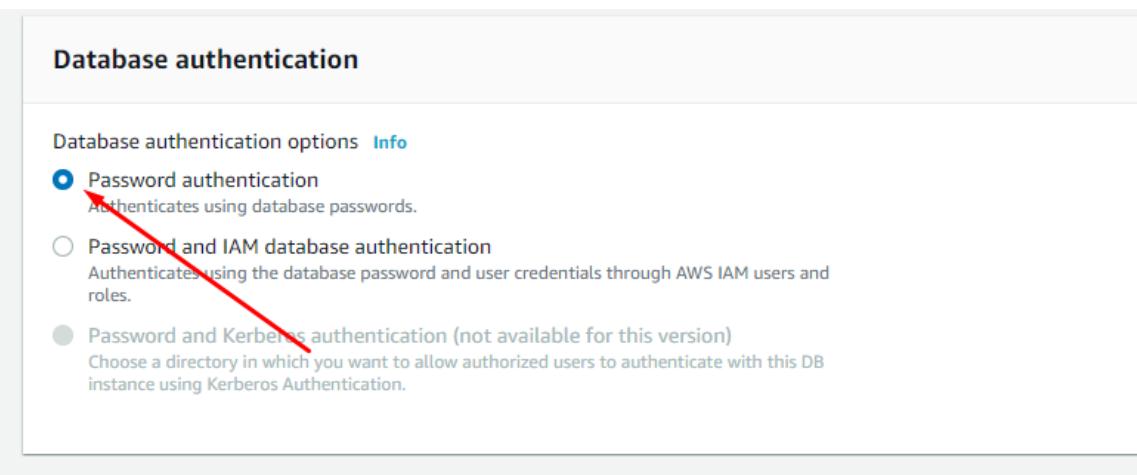
▼
default X

Availability Zone [Info](#)

▼

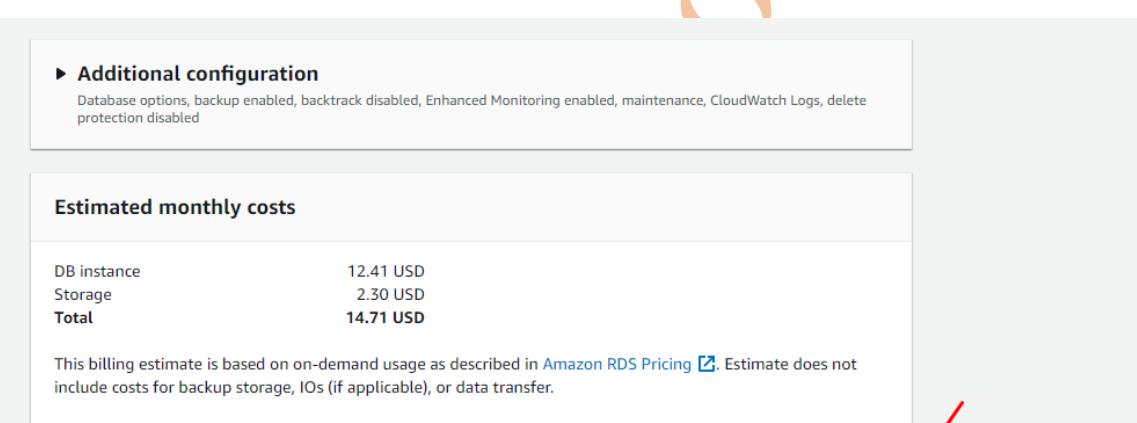
Database port [Info](#)
TCP/IP port that the database will use for application connections.

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The screenshot shows the 'Database authentication' step of the AWS RDS 'Create DB instance' wizard. It lists three options:

- 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.

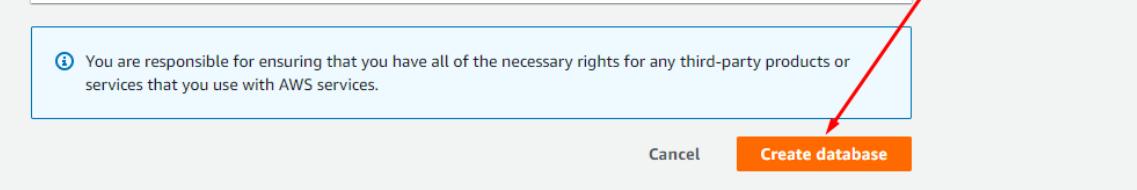


The screenshot shows the 'Estimated monthly costs' step of the AWS RDS 'Create DB instance' wizard. It displays the following cost breakdown:

DB instance	12.41 USD
Storage	2.30 USD
Total	14.71 USD

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

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



A note in the bottom left corner states: "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."

At the bottom right, there are 'Cancel' and 'Create database' buttons.

3. Let's create our EC2 server now

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Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	1	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot instances	
Network	vpc-0d582085cb08e787e rdsvpc	<input type="button" value="Create new VPC"/>
Subnet	subnet-0c8d21f280aff41d rdspubsub1 us-east-1a	<input type="button" value="Create new subnet"/> 251 IP Addresses available
Auto-assign Public IP	Enable	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	Open	
IAM role	None	<input type="button" value="Create new IAM role"/>
Shutdown behavior	Stop	

Cancel Previous Review and Launch Next: Add Storage

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group:

Create a new security group
 Select an existing security group

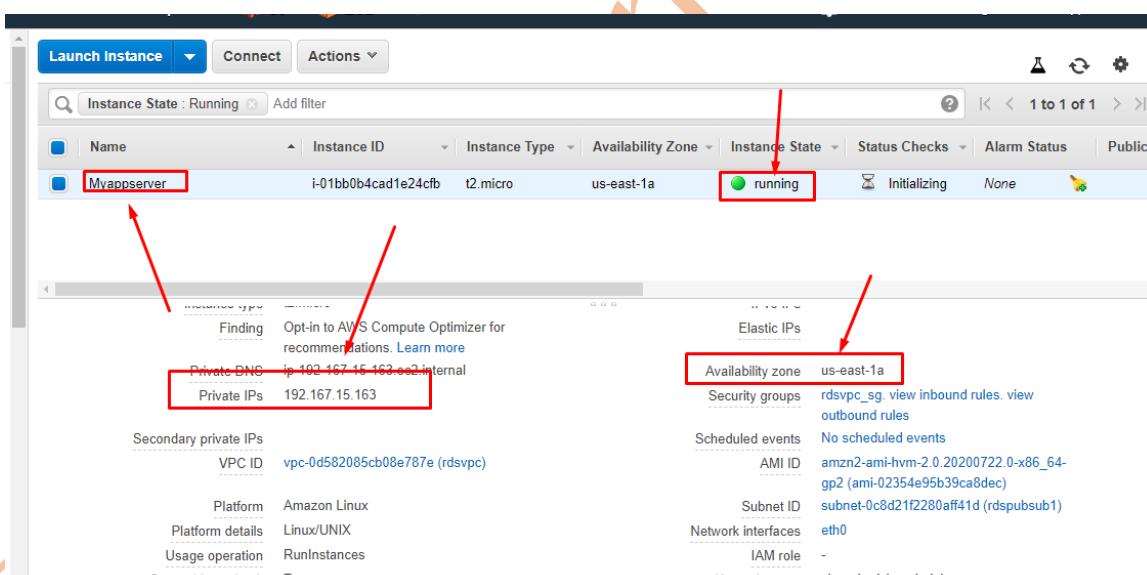
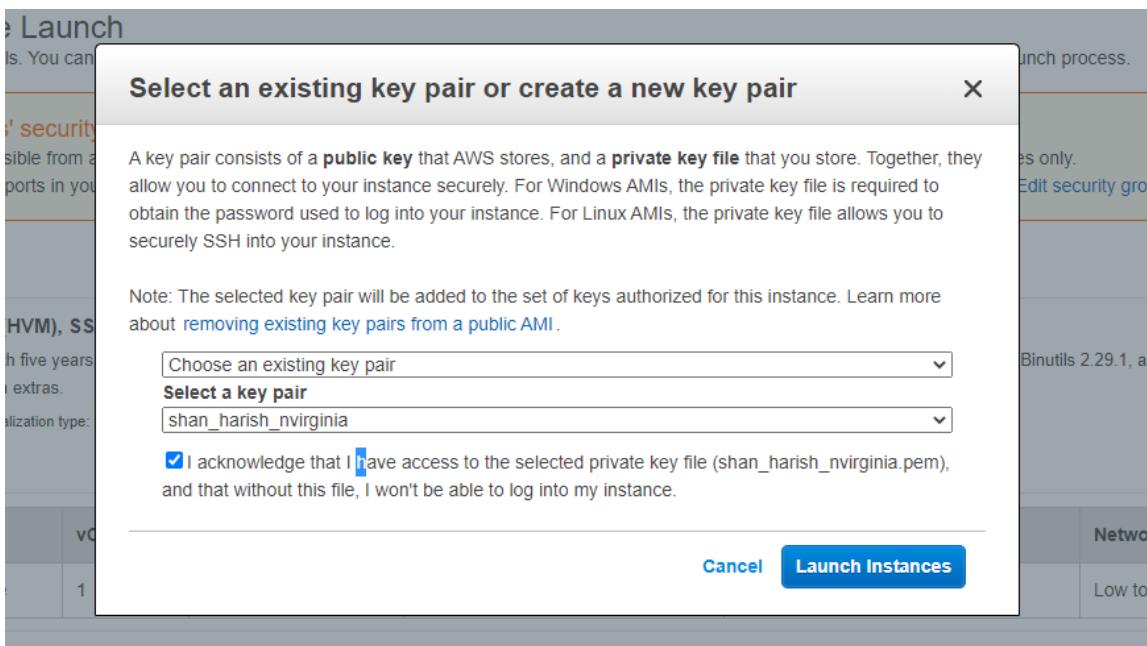
Security Group ID	Name	Description	Actions
sg-033235957fd01c507	default	default VPC security group	<input type="button" value="Copy to new"/>
sg-00f99ba4ad05141f0	rdsvpc_sg	rdsvpc_sg	<input type="button" value="Copy to new"/>

Inbound rules for sg-00f99ba4ad05141f0 (Selected security groups: sg-00f99ba4ad05141f0)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

Cancel Previous Review and Launch

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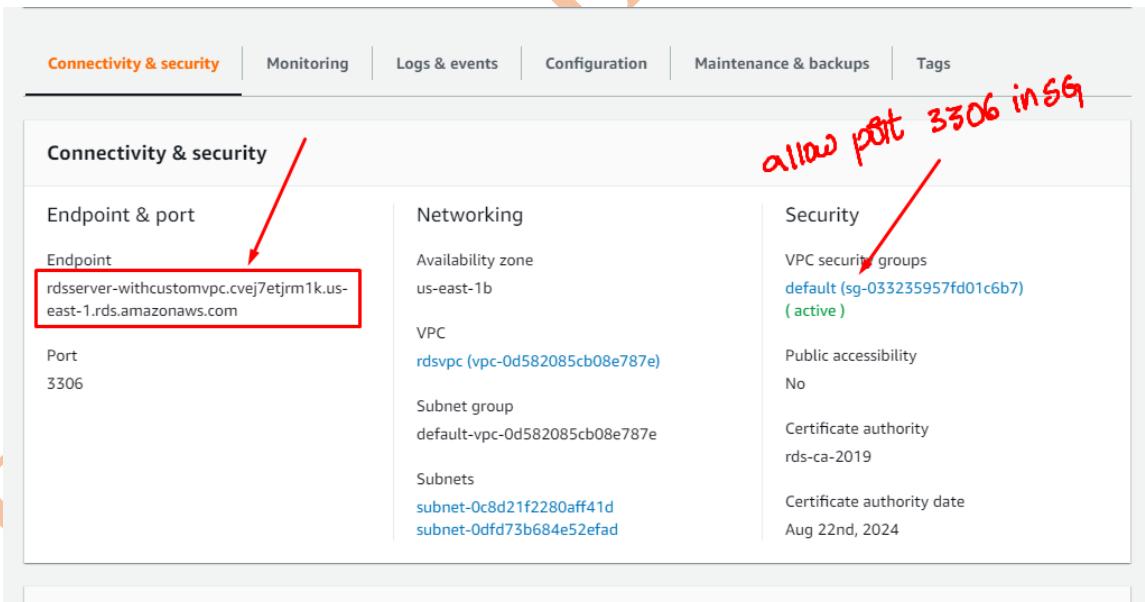
```
root@ip-192-167-15-163:~#
Using username "ec2-user".
Authenticating with public key "imported-ssh-key" from agent
      _\ _ / Amazon Linux 2 AMI
      \ \_ | |
https://aws.amazon.com/amazon-linux-2/
4 package(s) needed for security, out of 8 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-192-167-15-163 ~]$ sudo su -
[root@ip-192-167-15-163 ~]# yum install mysql -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package mariadb.x86_64 1:5.5.64-1.amzn2 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package           Arch          Version           Repository
=====
Installing:
mariadb          x86_64        1:5.5.64-1.amzn2   amzn2-core

Transaction Summary
```

4. Make sure that you are allowing the port in the security group for your RDS



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The screenshot shows the AWS Security Groups console for a security group named 'sg-033235957fd01c6b7 - default'. The 'Details' section displays basic information: Security group name (default), Security group ID (sg-033235957fd01c6b7), Description (default VPC security group), VPC ID (vpc-0d582085cb08e787e), Owner (907814406801), Inbound rules count (1 Permission entry), and Outbound rules count (1 Permission entry). Below this, the 'Inbound rules' tab is selected, showing a single rule: Type (All traffic), Protocol (All), Port range (All), Source (0.0.0.0/0), and Description (optional). A red box highlights the 'Type' field, and another red box highlights the 'Source' field.

5. Now let's try to access the database from the ec2 server

The screenshot shows the AWS RDS console for a database named 'rdsserver-withcustomvpc.cvej7etjrm1k.us-east-1.rds.amazonaws.com'. The left sidebar shows navigation options like Dashboard, Databases, Query Editor, etc. The main page is under the 'Connectivity & security' tab. It displays the Endpoint (rdsserver-withcustomvpc.cvej7etjrm1k.us-east-1.rds.amazonaws.com), Port (3306), Networking (Availability zone: us-east-1b, VPC: rdsvpc (vpc-0d582085cb08e787e), Subnet group: default-vpc-0d582085cb08e787e, Subnets: subnet-0c8d21f2280aff41d, subnet-0dfdf73b684e52efad), and Security (VPC security groups: default (sg-033235957fd01c6b7) (active)). A red box highlights the 'Endpoint' field. On the left, a red arrow points to the 'Events' section, and another red arrow points to the 'Event subscriptions' section.

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```
[root@ip-192-167-15-163 ~]# [root@ip-192-167-15-163 ~]# [root@ip-192-167-15-163 ~]# mysql -u admin -padmin123 -h rdsserver-withcustomvpc.cvej7etjrm1k.us-east-1.rds.amazonaws.com -P 3306
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 8.0.17 Source distribution

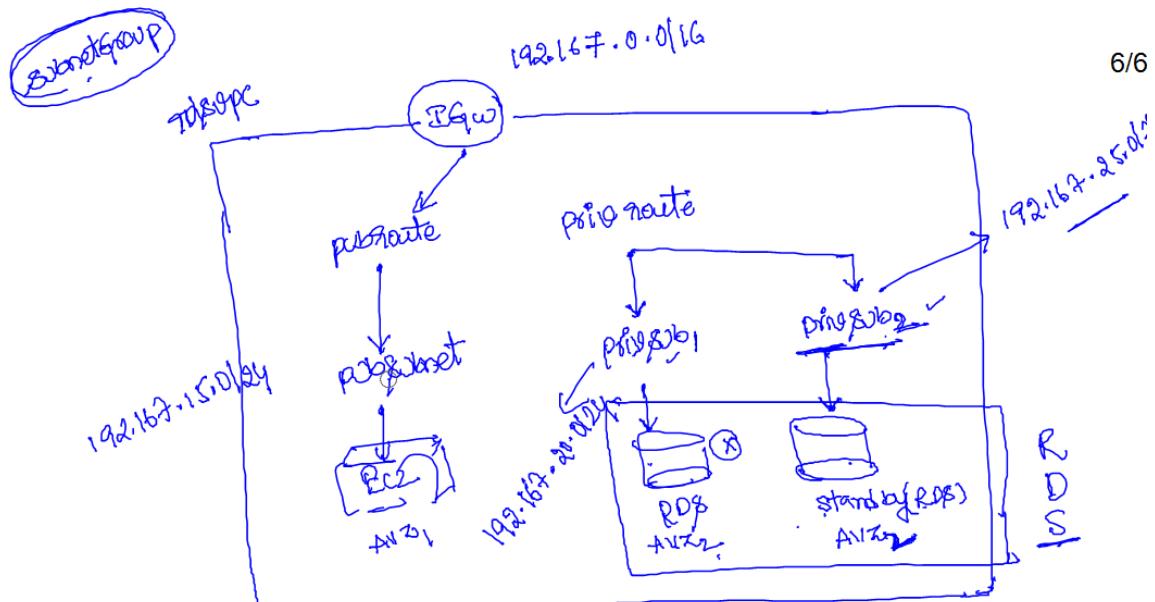
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
+-----+
3 rows in set (0.00 sec)

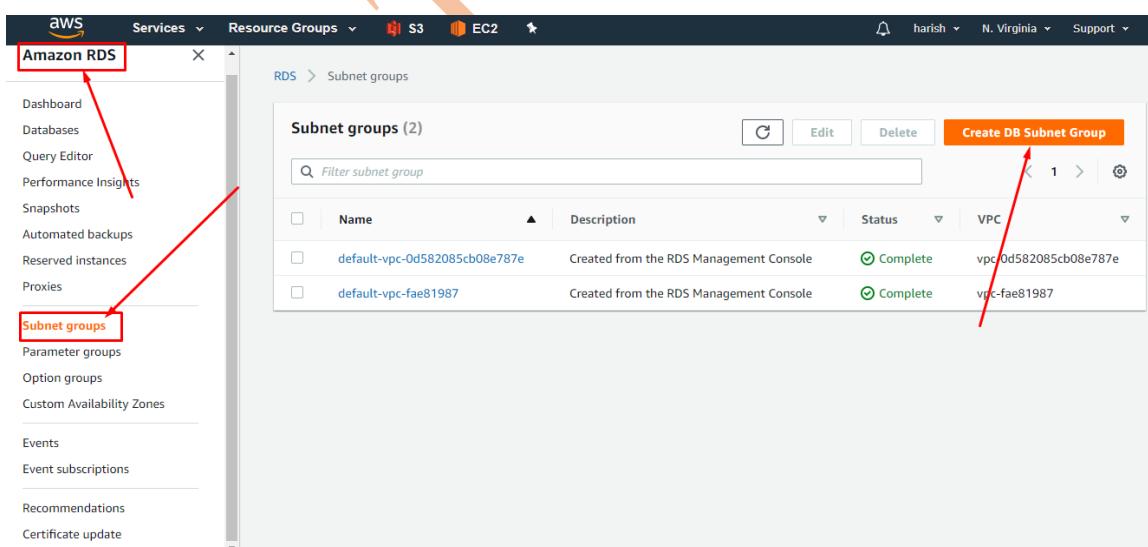
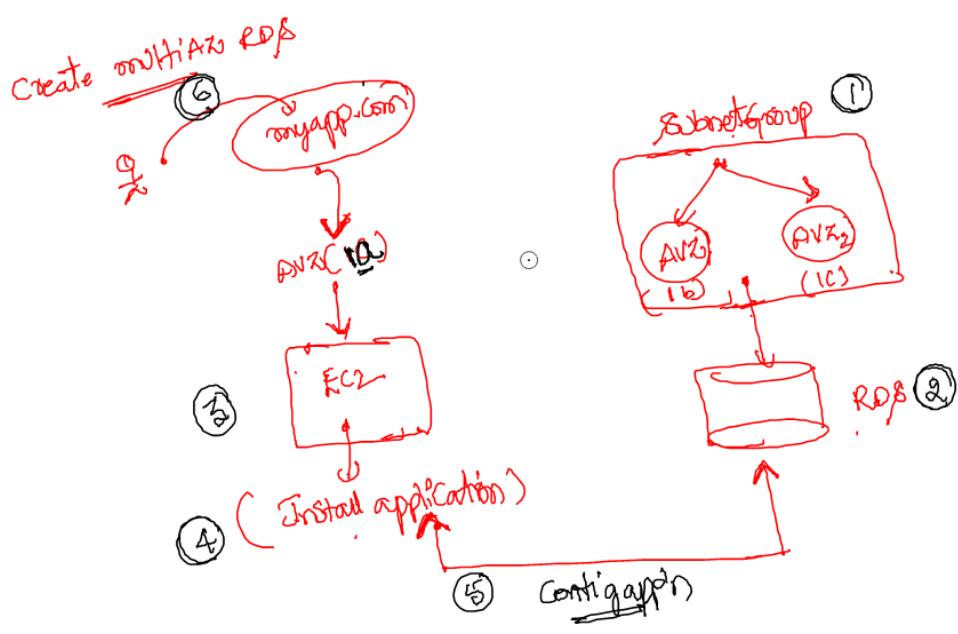
MySQL [(none)]> Bye
[host rdsserver-withcustomvpc.cvej7etjrm1k.us-east-1.rds.amazonaws.com
rdsserver-withcustomvpc.cvej7etjrm1k.us-east-1.rds.amazonaws.com has address 192.167.20.134
[root@ip-192-167-15-163 ~]#
```

3. Multi-AZ RDS



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Before we go and execute below make sure that you are having one VPC with one public subnet & atleast two private subnets as specified above.



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Amazon RDS

Services Resource Groups S3 EC2 harish N. Virginia Support

Subnet group details

Name: dvsbatch4rdsmultiA2

Description: dvsbatch4rdsmultiA2

VPC: rdsvpc (vpc-0d582085cb08e787e)

Add subnets

Availability Zones: Choose the Availability Zones that include the subnets you want to add.

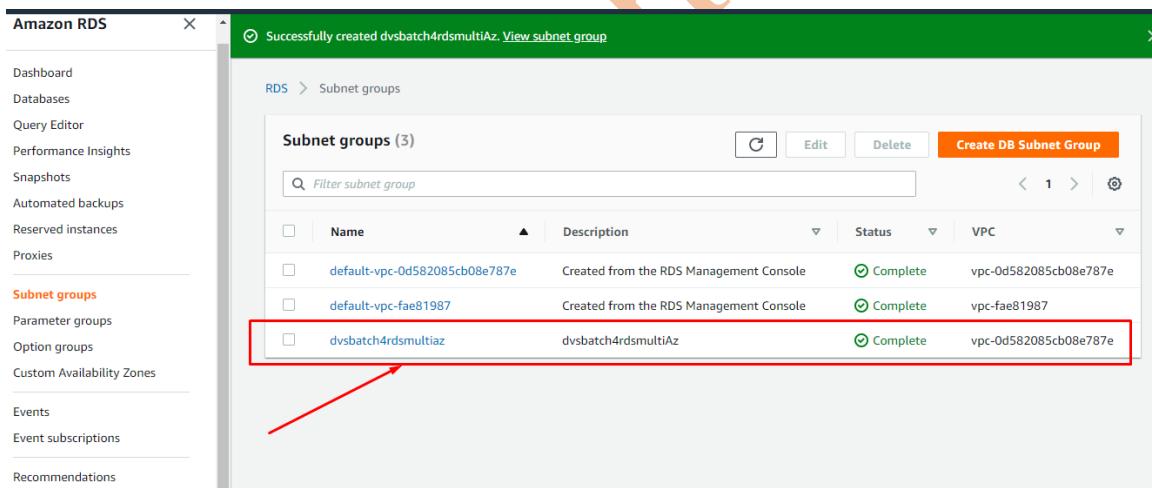
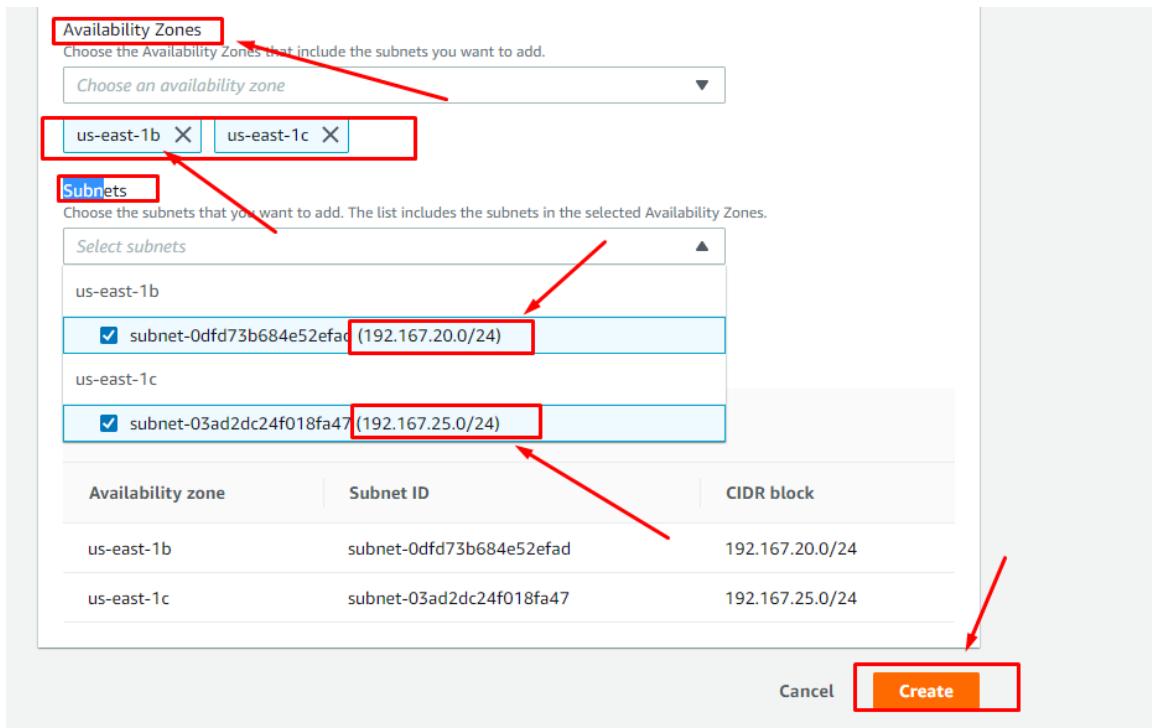
Choose an availability zone

- us-east-1a
- us-east-1b
- us-east-1c
- us-east-1d
- us-east-1e
- us-east-1f

Subnets selected (0)

Availability zone	Subnet ID	CIDR block
No subnets added to this group		

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The screenshot shows the AWS RDS (Relational Database Service) console. On the left, the navigation menu includes options like Dashboard, Databases (which is selected and highlighted with a red box), Query Editor, Performance Insights, Snapshots, Automated backups, Reserved instances, Proxies, Subnet groups, Parameter groups, Option groups, Custom Availability Zones, Events, Event subscriptions, Recommendations, and Certificate update. A success message at the top right says "Successfully created dvsbatch4rdsmultiAz. View subnet group". The main "Databases" page shows a table with columns: DB identifier, Role, Engine, Region & AZ, Size, Status, and CPU. A red arrow points from the "Create database" button in the top right of this table to the "Create database" link in the "Create database" sub-menu below. Another red arrow points from the "Standard Create" method in the "Choose a database creation method" section to the "MySQL" engine type in the "Engine options" section. A large orange watermark with the letters "DVS" is overlaid across the bottom of the interface.

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Edition
MySQL Community

Version [Info](#)
MySQL 8.0.17

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

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](#)

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.
dvsbatch4rdsmultiAz

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](#)

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DB instance size

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

Include previous generation classes

Storage

Storage type [Info](#)
General Purpose (SSD)

Allocated storage
20 GiB
(Minimum: 20 GiB, Maximum: 16384 GiB) Higher allocated storage [may improve](#) IOPS performance.

Provisioning less than 100 GiB of General Purpose (SSD) storage for high throughput workloads could result in higher latencies upon exhaustion of the initial General Purpose (SSD) IO credit balance. [Learn more](#)

Storage autoscaling [Info](#)
Provides dynamic scaling support for your database's storage based on your application's needs.

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: 21 GiB, Maximum: 16384 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

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

rdsvocab (vpc-0d582085cb08e787e)

Only VPCs with a corresponding DB subnet group are listed.

After a database is created, you can't change the VPC selection.

► Additional connectivity configuration

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

dvbatch4rdsmultiaz

Publicly accessible [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.

Existing VPC security groups

Choose VPC security groups

default X

Database port [Info](#)
TCP/IP port that the database will use for application connections.

3306

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The screenshot shows the 'Additional configuration' step of the AWS RDS 'Create database' wizard. It displays estimated monthly costs for a DB instance, storage, and multi-AZ standby instance, totaling 29.42 USD. A note states that the estimate is based on on-demand usage and does not include costs for backup storage, IOs, or data transfer. Below this, a link to the AWS Simple Monthly Calculator is provided. At the bottom right, there is a blue callout box containing a note: '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.' A red arrow points from this note towards the 'Create database' button. The 'Create database' button is highlighted with a red box.

Make sure that your security group of RDS is having 3306 port opened for the connectivity.

Verification:

The screenshot shows the 'Amazon RDS' dashboard with the 'Databases' tab selected. On the left, a sidebar lists various RDS management options. The main area displays a table for the database 'dvsbatch4rdsmultiaz'. The 'Summary' section shows the DB identifier as 'dvsbatch4rdsmultiaz', Role as 'Instance', CPU as '-', Info as 'Creating', Engine as 'MySQL Community', Class as 'db.t2.micro', and Region & AZ as 'us-east-1c'. Below this, the 'Connectivity & security' section is shown. It includes tabs for 'Connectivity & security', 'Monitoring', 'Logs & events', 'Configuration', 'Maintenance & backups', and 'Tags'. Under 'Connectivity & security', it shows the 'Endpoint & port' section with 'Endpoint' and 'Port' both set to '-'. The 'Networking' section shows 'Availability zone' as 'us-east-1c' and 'VPC' as 'rdsvc (vpc-0d582085cb08e787e)'. The 'Security' section shows 'VPC security groups' with 'default (sg-033235957fd01c6b7)' listed and '(active)'. A red box highlights the 'default' security group entry. A red arrow points from the 'Security' section towards the 'VPC security groups' table.

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The screenshot shows the AWS EC2 Security Groups page. It displays a table with one row, representing a single security group. The columns are: Name, Security group ID, Security group name, VPC ID, and Description. The 'Name' column has a checkbox checked. The 'Security group ID' column contains the value 'sg-033235957fd01c6b7'. The 'Security group name' column contains 'default'. The 'VPC ID' column contains 'vpc-0d582085cb08e787e'. The 'Description' column contains 'default VPC'. A red arrow points from the text 'sg-033235957fd01c6b7' to the 'Security group ID' column.

The screenshot shows the details page for the security group 'sg-033235957fd01c6b7 - default'. It includes sections for Details, Inbound rules, and Outbound rules. The Details section shows the following information:

Security group name default	Security group ID sg-033235957fd01c6b7	Description default VPC security group	VPC ID vpc-0d582085cb08e787e
Owner 907814406801	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

The Inbound rules section shows a single rule:

Type	Protocol	Port range	Source	Description - optional
All traffic	All	All	0.0.0.0/0	-

A red arrow points from the text 'sg-033235957fd01c6b7' to the 'Security group ID' field, another red arrow points from the text 'vpc-0d582085cb08e787e' to the 'VPC ID' field, and a third red arrow points from the text '0.0.0.0/0' to the 'Source' field.

Meanwhile lets configure our application server:

Create a new Ec2 from AVZ1(1A) as below.

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Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances	<input type="text" value="1"/>	Launch into Auto Scaling Group
Purchasing option	<input type="checkbox"/> Request Spot Instances	
Network	vpc-0d582085cb08e787e rdsvpc	<input type="button" value="Create new VPC"/>
Subnet	subnet-0c8d21f2280aff41d rdspubsub1 us-east-1a 251 IP Addresses available	<input type="button" value="Create new subnet"/>
Auto-assign Public IP	<input checked="" type="checkbox"/> Enable	
Placement group	<input type="checkbox"/> Add instance to placement group	
Capacity Reservation	<input type="button" value="Open"/>	
IAM role	<input type="button" value="None"/>	<input type="button" value="Create new IAM role"/>
Shutdown behavior	<input type="button" value="Stop"/>	

Review and Launch

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group:

Create a new security group
 Select an existing security group

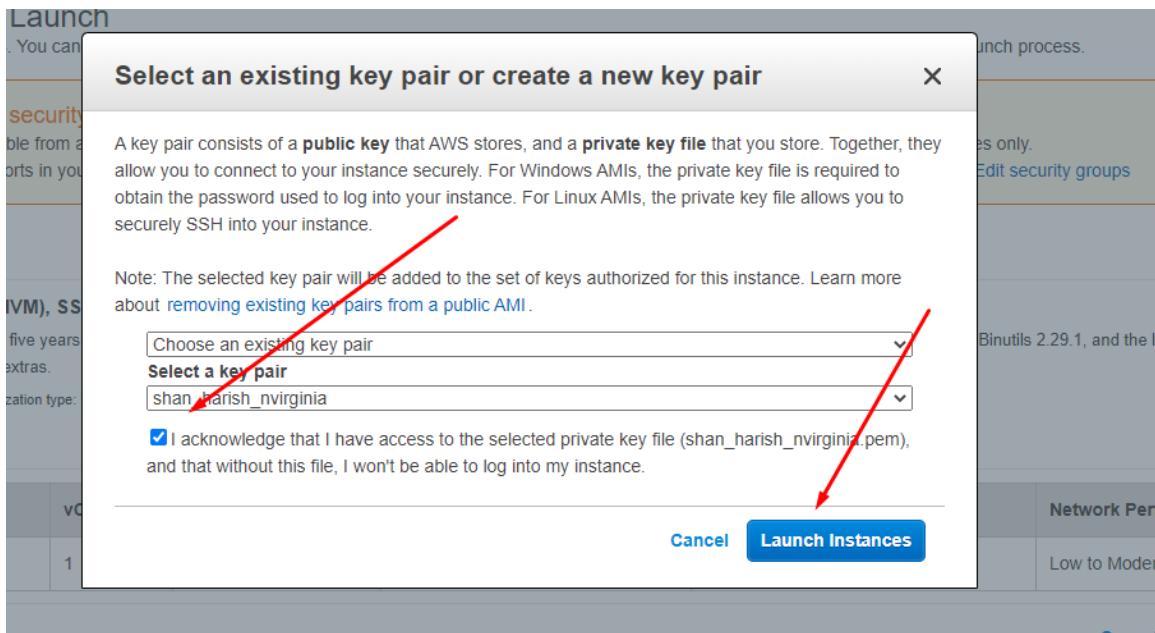
Security Group ID	Name	Description	Actions
sg-033235957fd01c6b7	default	default VPC security group	<input type="button" value="Copy to new"/>

Inbound rules for sg-033235957fd01c6b7 (Selected security groups: sg-033235957fd01c6b7)

Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	

Review and Launch

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Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS
wordpressapp	i-0bf54ec09fb4745fa	t2.micro	us-east-1a	running	Initializing	None	-

Instance: i-0bf54ec09fb4745fa (wordpressapp) Public IP: 54.226.242.168

Description	Status Checks	Monitoring	Tags
Instance ID i-0bf54ec09fb4745fa	Instance state running	Instance type t2.micro	Finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Private DNS ip-192-167-15-46.ec2.internal	Private IPs 192.167.15.46	Secondary private IPs 192.167.15.47	Public DNS (IPv4) IPv4 Public IP IPv6 IPs Elastic IPs
			Availability zone us-east-1a
			Security groups default , view inbound rules , view outbound rules
			Scheduled events No scheduled events

Now let's configure our wordpress application inside the server(ec2):

Execute the below command in the EC2 instance:

Installing wordpress application :

```
sudo yum update -y
sudo amazon-linux-extras install -y lamp-mariadb10.2-php7.2 php7.2
```

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```
sudo yum install -y httpd
sudo systemctl start httpd
sudo systemctl enable httpd
wget https://wordpress.org/latest.tar.gz
tar -xzf latest.tar.gz
sudo cp -r wordpress/* /var/www/html/
cd /var/www/html/
sudo cp wp-config-sample.php wp-config.php
```

Post db installation do the below.

```
sudo vi wp-config.php --> add the database details to this file
sudo chown -R apache /var/www
sudo chgrp -R apache /var/www
sudo chmod 775 /var/www
sudo find /var/www -type d -exec sudo chmod 2775 {} \;
sudo find /var/www -type f -exec sudo chmod 0664 {} \;
sudo systemctl restart httpd
```

Teach them the configuration with the created db bring down the db & show them the use case of AZ

Note: you while loop for host command ..

```
[root@ip-192-167-15-46 ~]#
[root@ip-192-167-15-46 ~]# sudo amazon-linux-extras install -y lamp-mariadb10.2-php7.2 php7.2
Installing php-pdo, php-mysqli, php_fpm, php_cli, php_json, mariadb
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Cleaning repos: amzn2-core amzn2extra-docker amzn2extra-lamp-mariadb10.2-php7.2 amzn2extra-php7.2
12 metadata files removed
```

```
[root@ip-192-167-15-46 ~]#
[root@ip-192-167-15-46 ~]# sudo yum install -y httpd
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.43-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.43-1.amzn2 for package: httpd-2.4.43-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.43-1.amzn2 for package: httpd-2.4.43-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.43-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.43-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.43-1.amzn2.x86_64
```

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```
Complete!
[root@ip-192-167-15-46 ~]# [root@ip-192-167-15-46 ~]# sudo systemctl start httpd
[root@ip-192-167-15-46 ~]# sudo systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[root@ip-192-167-15-46 ~]# wget https://wordpress.org/latest.tar.gz
--2020-08-19 15:36:03-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12979571 (12M) [application/octet-stream]
Saving to: 'latest.tar.gz'

100%[=====] 12,979,571  2.05MB/s

2020-08-19 15:36:08 (2.22 MB/s) - 'latest.tar.gz' saved [12979571/12979571]

[root@ip-192-167-15-46 ~]# ls -l latest.tar.gz
-rw-r--r-- 1 root root 12979571 Aug 19 15:36 latest.tar.gz
[root@ip-192-167-15-46 ~]# tar -xzf latest.tar.gz
[root@ip-192-167-15-46 ~]# sudo cp -r wordpress/* /var/www/html/
[root@ip-192-167-15-46 ~]# cd /var/www/html/
[root@ip-192-167-15-46 html]# ls -l
total 204
-rw-r--r-- 1 root root 405 Aug 19 15:36 index.php
-rw-r--r-- 1 root root 19915 Aug 19 15:36 license.txt
-rw-r--r-- 1 root root 7278 Aug 19 15:36 readme.html
-rw-r--r-- 1 root root 7101 Aug 19 15:36 wp-activate.php
```

```
-rw-r--r-- 1 root root 3236 Aug 19 15:36 xmlrpc.php
[root@ip-192-167-15-46 html]# sudo cp wp-config-sample.php wp-config.php
[root@ip-192-167-15-46 html]# ls -l wp-config.php
-rw-r--r-- 1 root root 2913 Aug 19 15:36 wp-config.php
[root@ip-192-167-15-46 html]#
```

```
[root@ip-192-167-15-46 html]# cat wp-config.php
<?php
/** 
 * The base configuration for WordPress
 *
 * The wp-config.php creation script uses this file during the
 * installation. You don't have to use the web site, you can
 * copy this file to "wp-config.php" and fill in the values.
 *
 * This file contains the following configurations:
 *
 * * MySQL settings
 * * Secret keys
 * * Database table prefix
 * * ABSPATH
 *
 * @link https://codex.wordpress.org/support/article/editing-wp-config-php/
 *
 * @package WordPress
 */

// ** MySQL settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define('DB_NAME', 'database_name_here');

/** MySQL database username */
define('DB_USER', 'username_here');

/** MySQL database password */
define('DB_PASSWORD', 'password_here');

/** MySQL hostname */
define('DB_HOST', 'localhost');
```

Annotations on the code:

- A red box highlights the line `define('DB_NAME', 'database_name_here');`. A blue arrow points from this box to the handwritten note `database name`.
- A red box highlights the line `define('DB_USER', 'username_here');`. A blue arrow points from this box to the handwritten note `admin`.
- A red box highlights the line `define('DB_PASSWORD', 'password_here');`. A blue arrow points from this box to the handwritten note `admin123`.
- A red box highlights the line `define('DB_HOST', 'localhost');`. A blue arrow points from this box to the handwritten note `"RDS ENDPOINT"`.

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As part of the above I don't have database to provide lets create our database in the RDS server using below

The screenshot shows two windows side-by-side. The left window is the AWS RDS 'Connectivity & security' configuration page. It displays the endpoint (dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com), port (3306), availability zone (us-east-1c), VPC (rdsvpc), subnet group (dvsbatch4rdsmultiaz), and subnets (subnet-0dfd73b684e52efad, subnet-03ad2dc24f018fa47). The right window is a terminal session on an EC2 instance (root@ip-192-167-15-46) showing the MySQL monitor. The user connects to the RDS endpoint (dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com) at port 3306. The MySQL monitor displays the welcome message, server version (8.0.17), and copyright information. The user runs 'show databases;' which lists 'information_schema', 'mysql', and 'performance_schema'. The user then creates a new database named 'dvsbatch4' using the command 'create database dvsbatch4;'. Finally, the user runs 'show databases;' again, and the newly created database 'dvsbatch4' is now listed along with the system databases.

```
[root@ip-192-167-15-46 ~]# mysql -u admin -padmin123 -h dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com -P 3306
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.17 Source distribution

Copyright (c) 2000, 2017, 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 |
+-----+
3 rows in set (0.00 sec)

MySQL [(none)]> create database dvsbatch4;
Query OK, 1 row affected (0.01 sec)

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| dvsbatch4 |
| information_schema |
| mysql |
| performance_schema |
+-----+
```

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```
[root@ip-192-167-15-46 html]# vi wp-config.php
```

```
* @link https://wordpress.org/support/article/editing-wp-config-php/
*
* @package WordPress
*/
// ** MySQL settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'dvsbatch4' );

/** MySQL database username */
define( 'DB_USER', 'admin' );

/** MySQL database password */
define( 'DB_PASSWORD', 'admin123' );

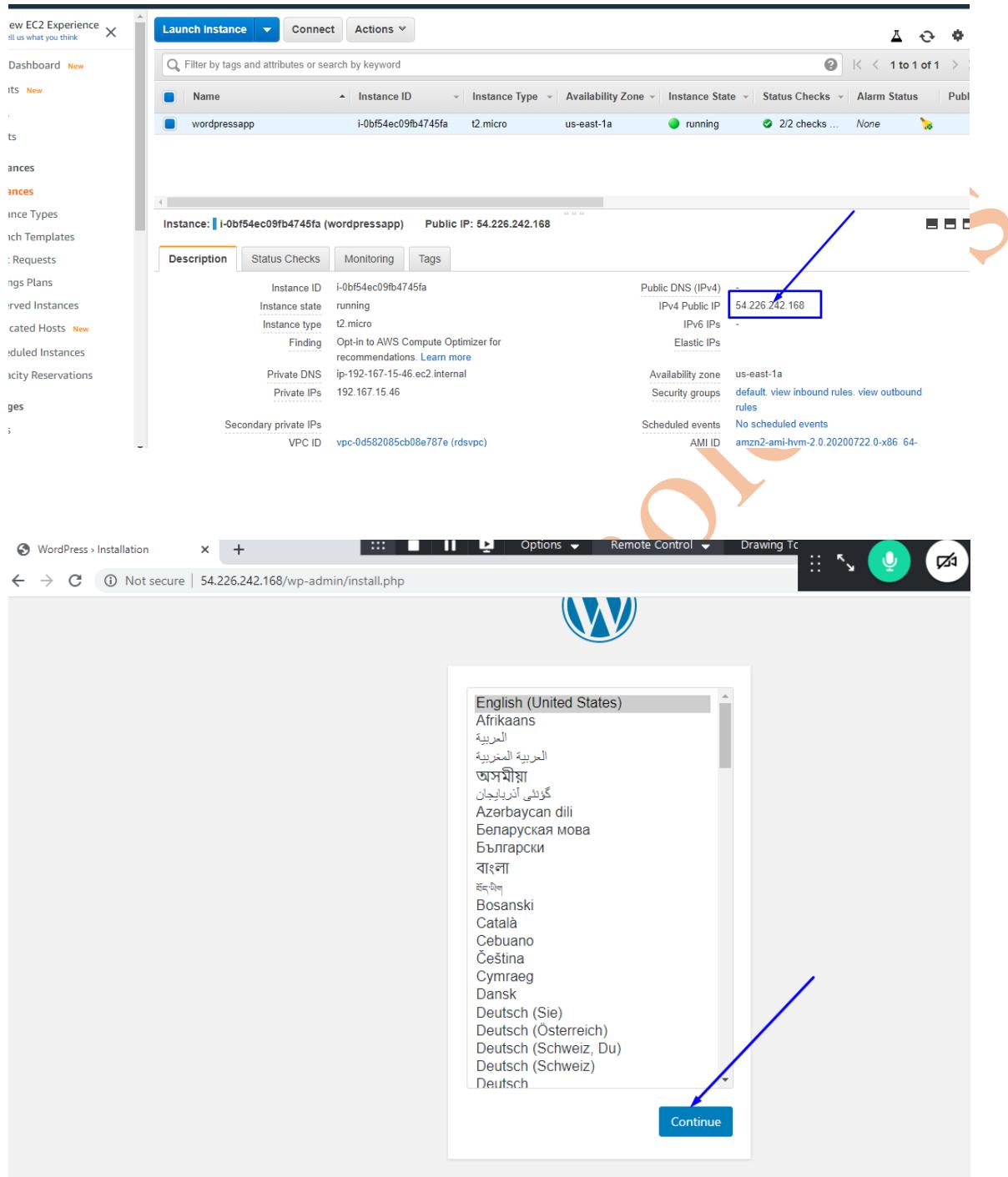
/** MySQL hostname */
define( 'DB_HOST', 'dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com' );
[root@ip-192-167-15-46 html]# ^C
```

Make sure that you are editing the above file and adding the data.

```
MySQL [(none)]> ^D
[root@ip-192-167-15-46 html]# sudo chown -R apache /var/www
[root@ip-192-167-15-46 html]# sudo chgrp -R apache /var/www
[root@ip-192-167-15-46 html]# sudo chmod 775 /var/www
[root@ip-192-167-15-46 html]# sudo find /var/www -type d -exec sudo chmod 2775 {} \;
[root@ip-192-167-15-46 html]# sudo find /var/www -type f -exec sudo chmod 0664 {} \;
[root@ip-192-167-15-46 html]# sudo systemctl restart httpd
[root@ip-192-167-15-46 html]# █
```

Verifying My application status:

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BEFORE CLICKING ON CONTINUE:

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```
[root@ip-192-167-15-46 html]# mysql -u admin -padmin123 -h dvsbatch4rdsmultiaz.cve 3306
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 23
Server version: 8.0.17 Source distribution

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]> use dvsbatch4;
Database changed
MySQL [dvsbatch4]> show tables;
Empty set (0.00 sec)

MySQL [dvsbatch4]>
```

Not secure 54.226.242.168 wp-admin/install.php?step=1

Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title: dvsbatch4

Username: dvsbatch4

Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password: dvsbatch4@123

Weak

Hide

Important: You will need this password to log in. Please store it in a secure location.

Confirm Password: Confirm use of weak password

Your Email: shahan.aix@gmail.com

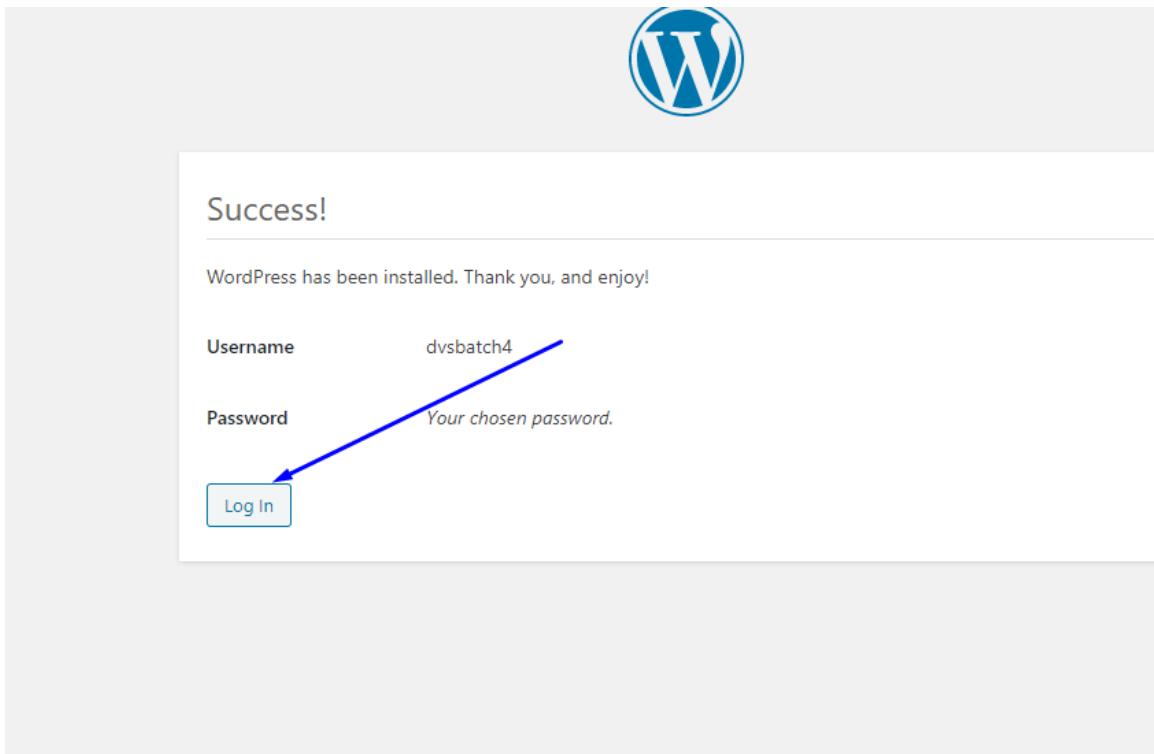
Double check your email address before continuing.

Search engine visibility: Discourage search engines from indexing this site

It is up to search engines to honor this request.

Install WordPress

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The image consists of two screenshots of a WordPress website. The top screenshot shows the WordPress login page at <http://54.226.242.168/wp-login.php>. A blue arrow points from the browser's address bar to the URL. The login form has a large blue 'W' logo above it. It contains fields for 'Username or Email Address' (with 'dvsbatch4' typed in) and 'Password' (with a redacted password). There is also a 'Remember Me' checkbox and a 'Log In' button. Below the form are links for 'Lost your password?' and '← Back to dvsbatch4'. The bottom screenshot shows the WordPress dashboard at <http://54.226.242.168/wp-admin/>. A blue arrow points from the browser's address bar to the URL. The dashboard features a left sidebar with various menu items like Home, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, and Settings. The main content area includes sections for 'Welcome to WordPress!', 'Get Started' (with a 'Customize Your Site' button), 'Next Steps' (with links to Write your first blog post, Add an About page, Set up your homepage, and View your site), and 'More Actions' (with links to Manage widgets, Manage menus, Turn comments on or off, and Learn more about getting sta...'). There are also 'Site Health Status' and 'At a Glance' widgets, and a 'Quick Draft' section for writing new posts.

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```
TYPE 'help' OR '\h' FOR HELP. TYPE '\c' TO CLEAR THE CURRENT INPUT STATEMENT.  
MySQL [(none)]> use dvsbatch4;  
Database changed  
MySQL [dvsbatch4]> show tables;  
Empty set (0.00 sec)  
  
MySQL [dvsbatch4]> show tables;  
+-----+  
| Tables_in_dvsbatch4 |  
+-----+  
| wp_commentmeta |  
| wp_comments |  
| wp_links |  
| wp_options |  
| wp_postmeta |  
| wp_posts |  
| wp_term_relationships |  
| wp_term_taxonomy |  
| wp_termmeta |  
| wp_terms |  
| wp_usermeta |  
| wp_users |  
+-----+  
12 rows in set (0.01 sec)  
  
MySQL [dvsbatch4]>
```

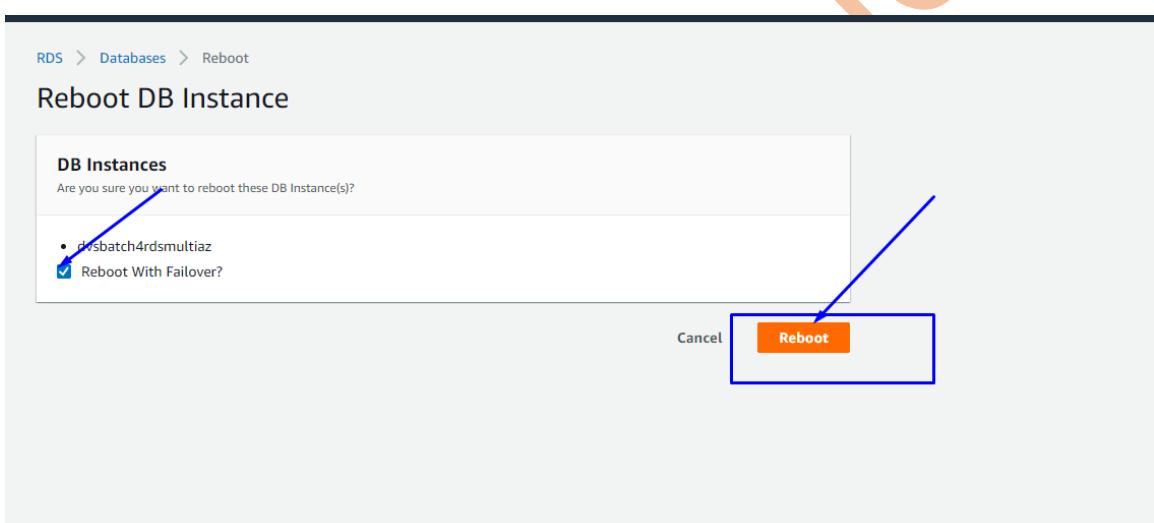
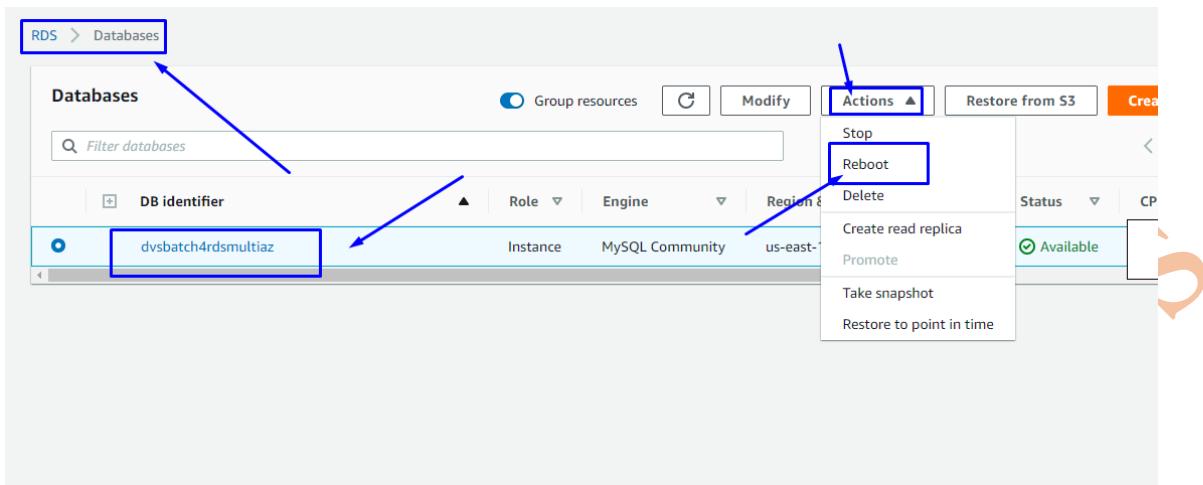
4. Testing Multi-AZ RDS

Perform the below:

```
while true; do host dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com; sleep 5; done
```

```
[root@ip-192-167-15-46 html]# while true; do host dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com; sleep 5;  
one  
dvsbatch4rdsmultiaz.cvej7etjrm1k.us-east-1.rds.amazonaws.com has address 192.167.25.250
```

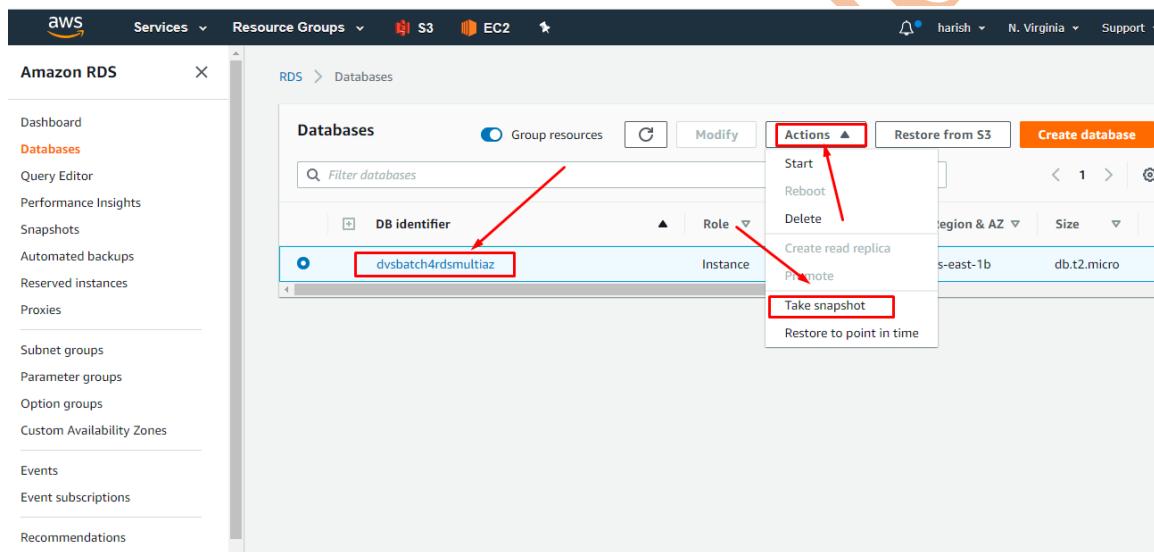
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Pls wait for <1 min and monitor your Ec2

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5. Creating Snapshots for RDS



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RDS > Databases > Take snapshot

Take DB Snapshot

This feature is currently supported for InnoDB storage engine only. If you are using MyISAM, refer to details [here](#).

Settings

To take a snapshot of this DB instance you must provide a name for the snapshot.

DB instance
The unique key that identifies a DB instance. This parameter isn't case-sensitive.
dvsbatch4rdsmultiaz

Snapshot name
The Identifier for the DB Snapshot

Take Snapshot

RDS > Snapshots

Snapshots

Manual System Shared with me Public Backup service Exports in Amazon S3

Manual snapshots (1)			Actions	Take snapshot
<input type="text" value="Filter manual snapshots"/> < 1 > Actions				
<input type="checkbox"/> Snapshot name	DB instance or cluster	Snapshot creation time		
<input type="checkbox"/> dvsbatch4multiazbackup	dvsbatch4rdsmultiaz	-		

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This screenshot shows the AWS RDS Snapshots page. The 'Manual' tab is selected. A single manual snapshot is listed under 'Manual snapshots (1)'. The status of this snapshot is 'creating', and its progress is at 0%. The table includes columns for DB Instance created time, Status, Progress, Engine, and VPC. A red box highlights the 'Progress' column, and a red arrow points from it to the progress bar. A large orange watermark 'Amazon' is diagonally across the page.

DB Instance created time	Status	Progress	Engine	VPC
Wed Aug 19 2020 19:30:20 GMT+0400 (Gulf Standard...	creating	0%	MySQL Community	vpc-0d582085cb08e787e

This screenshot shows the AWS RDS Snapshots page. The 'Manual' tab is selected. A single manual snapshot is listed under 'Manual snapshots (1)'. The status of this snapshot is 'available', and its progress is 'Completed'. The table includes columns for DB Instance created time, Status, Progress, Engine, and VPC. A red box highlights the 'Progress' column, and a red arrow points from it to the word 'Completed'. A large orange watermark 'Amazon' is diagonally across the page.

DB Instance created time	Status	Progress	Engine	VPC
Wed Aug 19 2020 19:30:20 GMT+0400 (Gulf Standard...	available	Completed	MySQL Community	vpc-0d582085cb08e787e

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RDS > Snapshots

Snapshots

Manual System Shared with me Public Backup service Exports in Amazon S3

Manual snapshots (1)

Snapshot name	DB instance or cluster	Snapshot time
<input checked="" type="checkbox"/> dvsbatch4multiazbackup	dvsbatch4rdsmultiaz	Thu Aug 24 2023

Actions Take snapshot

- Restore snapshot
- Copy snapshot
- Share snapshot
- Migrate snapshot
- Export to Amazon S3 \$0.00 (Gulf Standard)
- Delete snapshot

RDS > Snapshots > Restore snapshot

Restore snapshot

You are creating a new DB Instance from a source DB Instance at a specified time. This new DB Instance will have the default DB Security group and DB Parameter groups.

DB specifications

Engine MySQL Community

Settings

DB Snapshot ID dvsbatch4multiazbackup

DB Instance identifier [Info](#) dvsbatch4backup

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Connectivity

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

rdsvocabc08e787e

Only VPCs with a corresponding DB subnet group are listed.

i After a database is created, you can't change the VPC selection.

Additional connectivity configuration

Subnet group [Info](#)
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

dvsbatch4rdsmultiaz

Publicly accessible [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.

Existing VPC security groups

Choose VPC security groups

default X

Database port [Info](#)
TCP/IP port that the database will use for application connections.

3306

DB instance size

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 db.t2.micro

1 VCPU | 1 GB RAM | Not EBS Optimized

Include previous generation classes

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Storage

Storage type [Info](#)
 General Purpose (SSD)

Allocated storage
20 GiB
(Minimum: 20 GiB, Maximum: 16384 GiB) Higher allocated storage [may improve](#) IOPS performance.

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

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.

Encryption

Encryption [Info](#)

Enable Encryption
Choose to encrypt the copy of the source DB snapshot. Master key IDs and aliases appear in the list after they have been created using KMS. You cannot remove encryption from an encrypted DB snapshot.

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to remove encryption from an

