

Module 6: Database Services

Assignment - 2

You have been asked to:

1. Create an Amazon Aurora database with 2 Read Replicas

1. Type RDS in search bar. Open dashboard

2. Let region remain N.Virgina

Amazon RDS

Dashboard

Databases

Query Editor

Performance insights

Amazon Aurora

Amazon Aurora is a MySQL- and PostgreSQL-compatible, fully managed database engine that provides up to 15 TB of auto-scaling storage capacity, 6-way replication across three availability zones, and 15 low-latency read replicas. [Learn more](#)

Create database

Or, Restore Aurora DB cluster from S3

3. Create database

4. Set admin password as admin123.
Leave all other options as it is.

5. Create a new DB cluster param group. Set
binlogs format to ROW in this. Finally set “DB
cluster parameter group” in create db to this

6. Wait until Aurora db becomes available

RDS > Databases

Databases

Filter by databases

Group resources

Modify

Actions

Restore from S3

Create database

DB Identifier	Role	Engine	Region & AZ	Size	Status	CPU	Current activity	Maintenance	VPC	Multi-AZ
database-1	Regional cluster	Aurora MySQL	us-east-1	2 instances	Available	-		none	-	-
database-1-instance-1	Writer Instance	Aurora MySQL	us-east-1d	db.r5.large	Creating	-		none	vpc-0c29d01624e789183	2 Zones
database-1-instance-1-us-east-1a	Reader Instance	Aurora MySQL	us-east-1a	db.r5.large	Creating	-		none	vpc-0c29d01624e789183	2 Zones
m5a1-database-1	Instance	MariaDB	us-east-1c	db.t2.micro	Available	2.50%	0 Connections	none	vpc-0c29d01624e789183	No
m5a1-database-2	Instance	MariaDB	us-east-1d	db.t2.micro	Available	2.67%	0 Connections	none	vpc-0fe79b3e336e0c2e5	No

Databases

Group resources

Modify

Actions

Restore from S3

Create database

Filter by databases

DB Identifier

database-1	Regional cluster	Aurora MySQL	us-east-1	2 instances	Available	-	
database-1-instance-1	Writer instance						
database-1-instance-1-us-east-1a	Reader instance						
m5a1-database-1	Instance	MariaDB	us-east-1c	db.t2.micro	Available	2.37%	0 Connections
m5a1-database-2	Instance	MariaDB	us-east-1d	db.t2.micro	Available	2.33%	0 Connections

Stop

Delete

Add AWS Region

Add reader

Create cross-Region read replica

Create clone

Promote

Restore to point in time

Backtrack

Add replica auto scaling

7. Wait until created DB instances become available

8. Select DB. Select to create read replica

RDS > Databases > database-1-instance-1 > Create cross region read replica

Create cross region read replica

Creating a new cross region replica will also create a new Aurora cluster in the target region. If the replication is disrupted, you will have to set up again. It is recommended that you select "Multi-AZ Deployment" to ensure high availability for the target cluster. Note that you will incur charges based on the target region's pricing. Please see [Aurora pricing](#) for more details.

Instance specifications

DB instance class

Contains the compute and memory capacity of the DB instance.

db.r5.large — 2 vCPU, 16 GiB RAM

Multi-AZ deployment

Specifies if the DB instance should have a standby deployed in another availability zone.

Yes

No

Network & Security

Destination region

The region in which the replica will be launched

US East (Ohio)

Destination DB subnet group

m6a2_db_subnet_ohio_us_east_2

Publicly accessible

Yes

EC2 instances and devices outside of the VPC hosting the DB instance will connect to the DB instances. You must also select more VPC security groups that specify which EC2 instances and devices can connect to the DB instance.

No

DB instance will not have a public IP address assigned. No EC2 instance or devices outside of the VPC will be able to connect to the DB instance.

VPC security groups

Choose VPC security groups

default

9. Choose a destination region

10. Ensure that this subnet is created in the destination region beforehand. Choose this region

11. Select "Create"

12. Repeat same steps from 7-10 to create another read replica