

Phase 3: Separate Components

Goal: Move the database to RDS, secure it, and make a new web server read secrets from Secrets Manager.

Task 1: Update VPC – Create Private Subnets

→Private Subnet 1(xyzvpc-subnet)

AZ: us-east-1a

CIDR: 10.0.0.64/27

→Private Subnet 2(xyzvpc-subnet)

AZ: us-east-1b

CIDR: 10.0.0.64/27

Task 3: Create Cloud9 Environment(xyzcloud9)

The screenshot shows the AWS Cloud9 environment named 'xyzcloud9' in the 'xyzcloud9' environment. The 'EC2 instance' tab is selected. Key details shown include:

- Details**: Name: xyzcloud9, Description: -, Environment type: EC2 instance.
- Owner ARN**: arn:aws:sts::793855739232:assumed-role/voclabs/user4081998-23p31a0561@acet.ac.in
- Status**: Ready
- Number of members**: 1
- Lifecycle status**: Created

Below the details, the EC2 instance section shows:

- ARN**: arn:aws:cloud9:us-east-1:793855739232:environment:431e79db42be4385a36642a7179d2657
- Platform**: Amazon Linux 2023
- Instance type**: t3.micro (1 GiB RAM + 2 vCPU)
- Storage**: EBS only

At the bottom, there are links for CloudShell, Feedback, and various system icons.

Task 4: Create MySQL RDS

The screenshot shows the AWS Aurora and RDS console for the xyzdb database. The left sidebar lists various database management options like Dashboard, Databases, Query editor, and Proxies. The main area displays the xyzdb database summary, including its identifier (xyzdb), status (Available), engine (MySQL Community), and region (us-east-1a). The Connectivity & security tab is selected, providing detailed information about endpoints, networking, and security groups.

Aurora and RDS

xyzdb

Summary

DB identifier	Status	Role	Engine
xyzdb	Available	Instance	MySQL Community
CPU	Class	Current activity	Region & AZ
2.75%	db.t4g.micro	2 Connections	us-east-1a

Connectivity & security

Endpoint & port	Networking	Security
Endpoint xyzdb.cs8f15ln7jey.us-east-1.rds.amazonaws.com	Availability Zone us-east-1a	VPC security groups dbaccess (sg-0546dae0e5768cdd) Active
Port 3306	VPC xyzvpc-vpc (vpc-0161f7451945b988)	Publicly accessible No
	Subnet group dbsubnetgroup	Certificate authority rds-ca-rsa2048-g1
	Subnets	

Task 5: Create Secret in Secrets Manager In Cloud9 terminal:

```
aws secretsmanager create-secret \ --name Mydbsecret \ --description "Database secret for web app" \ --secret-string "{\"user\":\"admin\",\"password\":\"-----\n\" ,\"host\":\" \",\"db\":\"STUDENTS\"}"
```

Task 6: Launch New Web Server

Name: xyztask5

Instance summary for i-0b90fee61d1981fa5 (xyztask5)

- Instance ID:** i-0b90fee61d1981fa5
- Public IPv4 address:** 54.226.23.50
- Instance state:** Running
- Private IPv4 addresses:** 10.0.0.13
- Public DNS:** ec2-54-226-23-50.compute-1.amazonaws.com
- Elastic IP addresses:** -
- AWS Compute Optimizer finding:** Opt-in to AWS Compute Optimizer for recommendations.
- Auto Scaling Group name:** -
- Managed:** -

Task 7: Database Migration

Run in Cloud9: mysqldump -h -u nodeapp -p --databases
STUDENTS > data.sql

Task 8: Test Phase 3

<http://54.226.23.50/>

Name	Address	City	State	Email	Phone
Aditya	kakinada	Kakinada	Andhra Pradesh	aditya768@gmail.com	09666497484
shanmukh	mamidada	anaparthi	Andhra Pradesh	shanmukh12@gmail.com	8529631478

[Add a new student](#)