

Deploying Multi-Tier Website Using AWS EC2

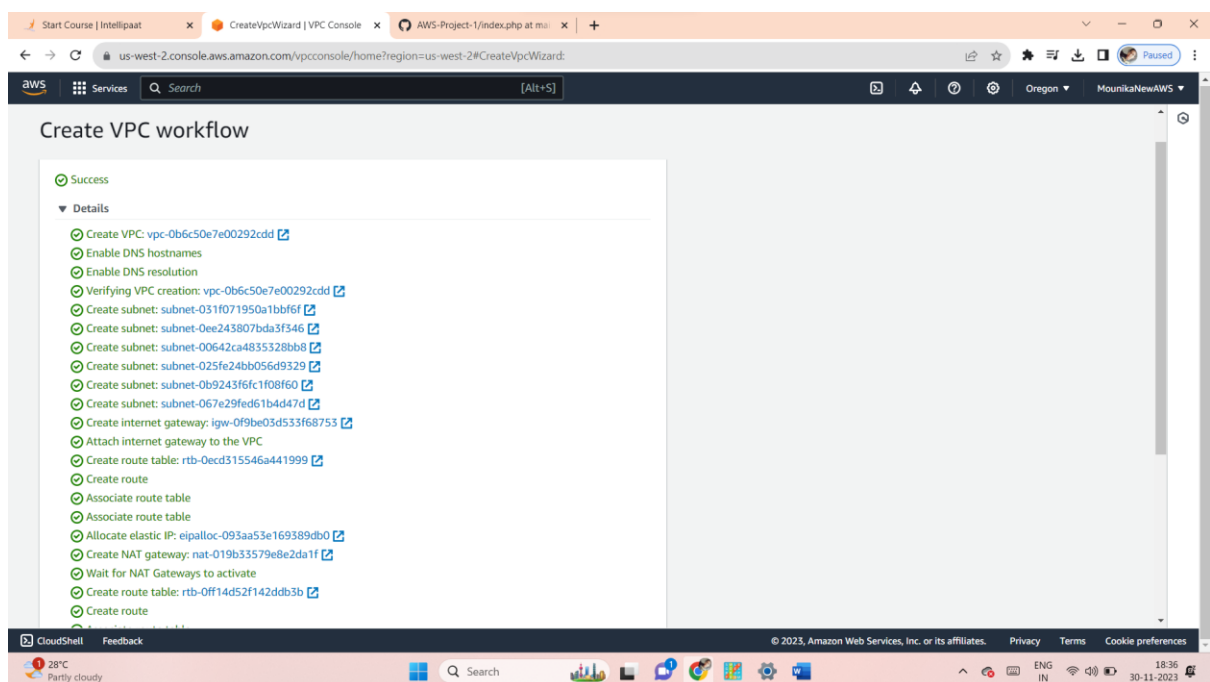
Deploying a PHP website that receives data from the user and stores that data in

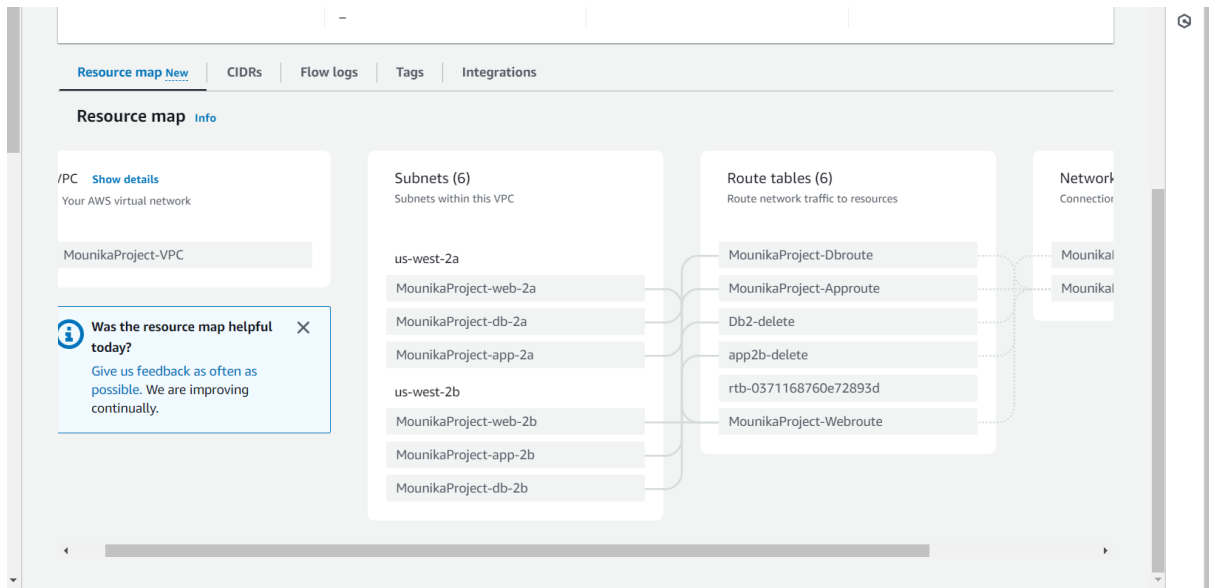
RDS MySQL Database. The entire architecture is scalable due to the Auto Scaling of servers and is highly available. Data Stored in RDS

is highly secured, encrypted, and manages failover. It can only be accessed by an authorized database admin.

Solution

Creating a vpc at one go





Start Course | Intellipaat | subnets | VPC Console | RDS | us-west-2 | AWS-Project-1/index.php at m... | +

us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#db-subnet-groups-list

Amazon RDS

Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies

Subnet groups
Parameter groups
Option groups
Custom engine versions
Zero-ETL integrations New

Events
Event subscriptions

Successfully created MounikaProject-rds-subgroup. View subnet group

RDS > Subnet groups

Subnet groups (1)

Filter by subnet group

<input type="checkbox"/>	Name	Description	Status	VPC
<input type="checkbox"/>	mounikaproject-rds-subgroup	MounikaProject-rds-subgroup	Complete	vpc-0b6c50e7e00292cdd

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Start Course | Intellipaat x subnets | VPC Console x Databases | RDS | us-west-2 x AWS-Project-1/index.php at m... x +

us-west-2.console.aws.amazon.com/rds/home?region=us-west-2#databases:

Amazon RDS

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Zero-ETL integrations [New](#)

Events
Event subscriptions

Successfully created MounikaProject-rds-subgroup. [View subnet group](#)

RDS > Databases

Consider creating a Blue/Green Deployment to minimize downtime during upgrades
You may want to consider using Amazon RDS Blue/Green Deployments and minimize your downtime during upgrades. A Blue/Green Deployment provides a staging environment for changes to production databases. [RDS User Guide](#) [Aurora User Guide](#)

Databases (1) [Group resources](#) [Modify](#) [Actions](#) [Restore from S3](#) [Create database](#)

Filter by databases

<input type="checkbox"/>	DB identifier	Status	Role	Engine	Region & AZ	Size	Actions	CPU	Current a
<input type="radio"/>	mounikaproject-rds	Creating	Instance	MySQL Community	us-west-2a	db.t3.micro	-	-	-

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Start Course | Intellipaat x subnets | VPC Console x Databases | RDS | us-west-2 x Launch templates | EC2 | us-west-2 x GitHub - Training-Demo/AWS-P... x +

us-west-2.console.aws.amazon.com/ec2/home?region=us-west-2#LaunchTemplates:

Launch Templates (1) [Info](#) [Actions](#) [Create launch template](#)

Search

Launch Template ID	Launch Template Name	Default Version	Latest Version	Create Time	Created ...
lt-0f031dd3520ffde26	MounikaProject-LT	1	1	2023-11-30T13:42:12.000Z	arn:aws:ia...

Select a launch template

EC2 Dashboard
EC2 Global View
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Instances
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[Launch Templates](#)
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
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Images
AMIs
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Elastic Block Store
Volumes
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Lifecycle Manager

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Start Course | IntelliPaat | subnets | VPC Console | Databases | RDS | us-west-2 | Auto Scaling groups | EC2 | us-west-2 | GitHub - Training-Demo/AWS- | +

us-west-2.console.aws.amazon.com/ec2/home?region=us-west-2#AutoScalingGroups:

Services Search [Alt+S]

EC2 Dashboard
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Lifecycle Manager

EC2 > Auto Scaling groups

Auto Scaling groups (1) Info

Launch configurations Launch templates Actions Create Auto Scaling group

Search your Auto Scaling groups

<input type="checkbox"/>	Name	Launch template/configuration	Instances	Status	Desired capacity	Min
<input type="checkbox"/>	MounikaProject-asg	MounikaProject-LT Version Default	2	-	2	2

0 Auto Scaling groups selected

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Start Course | IntelliPaat | subnets | VPC Console | Databases | RDS | us-west-2 | Instances | EC2 | us-west-2 | GitHub - Training-Demo/AWS- | +

us-west-2.console.aws.amazon.com/ec2/home?region=us-west-2#Instances:

Services Search [Alt+S]

EC2 Dashboard
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Instances
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▼ Elastic Block Store
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Lifecycle Manager

Instances (1/2) Info

Find Instance by attribute or tag (case-sensitive)

Connect Instance state Actions Launch instances

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input checked="" type="checkbox"/>	MounikaProjec...	i-0ee3eb90b934ccd2e	Running	t2.micro	Initializing	No alarms	us-west-2b	-
<input type="checkbox"/>	MounikaProjec...	i-023e02235f827a7ee	Running	t2.micro	Initializing	No alarms	us-west-2a	-

Instance: i-0ee3eb90b934ccd2e (MounikaProject-instances)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0ee3eb90b934ccd2e (MounikaProject-instances)	-	10.0.0.153
IPv6 address	Instance state	Public IPv4 DNS
-	Running	-
Hostname type	Private IP DNS name (IPv4 only)	
IP name: ip-10-0-0-153.us-west-2.compute.internal	ip-10-0-0-153.us-west-2.compute.internal	

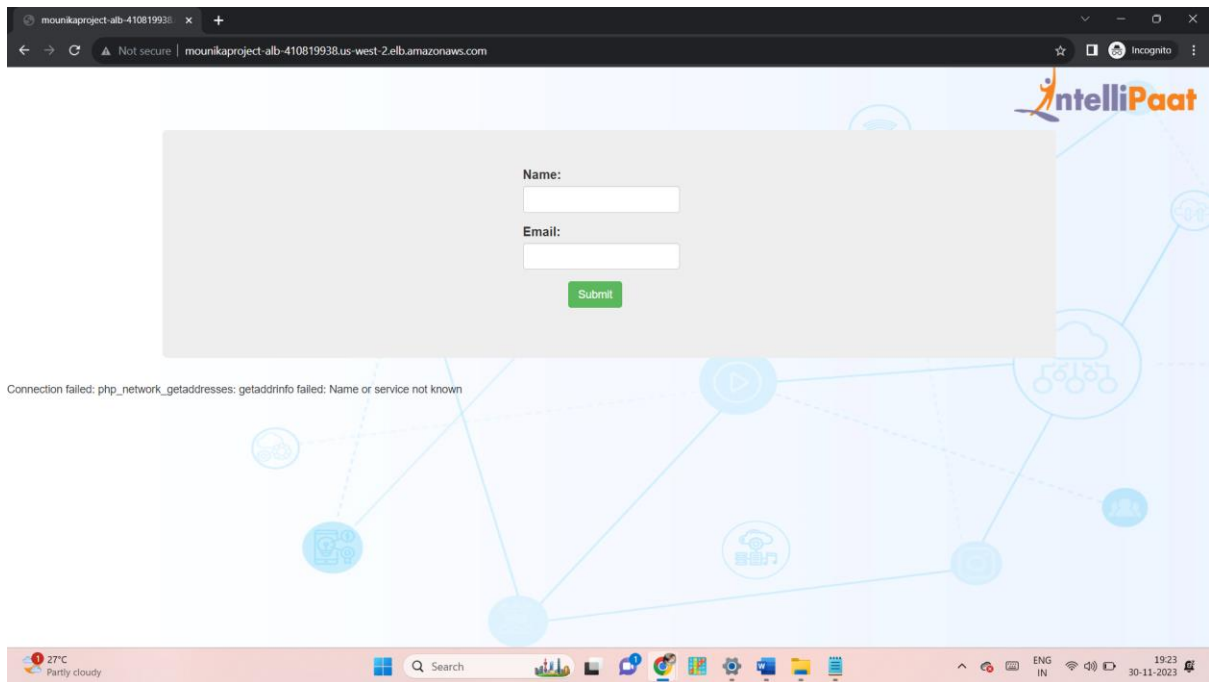
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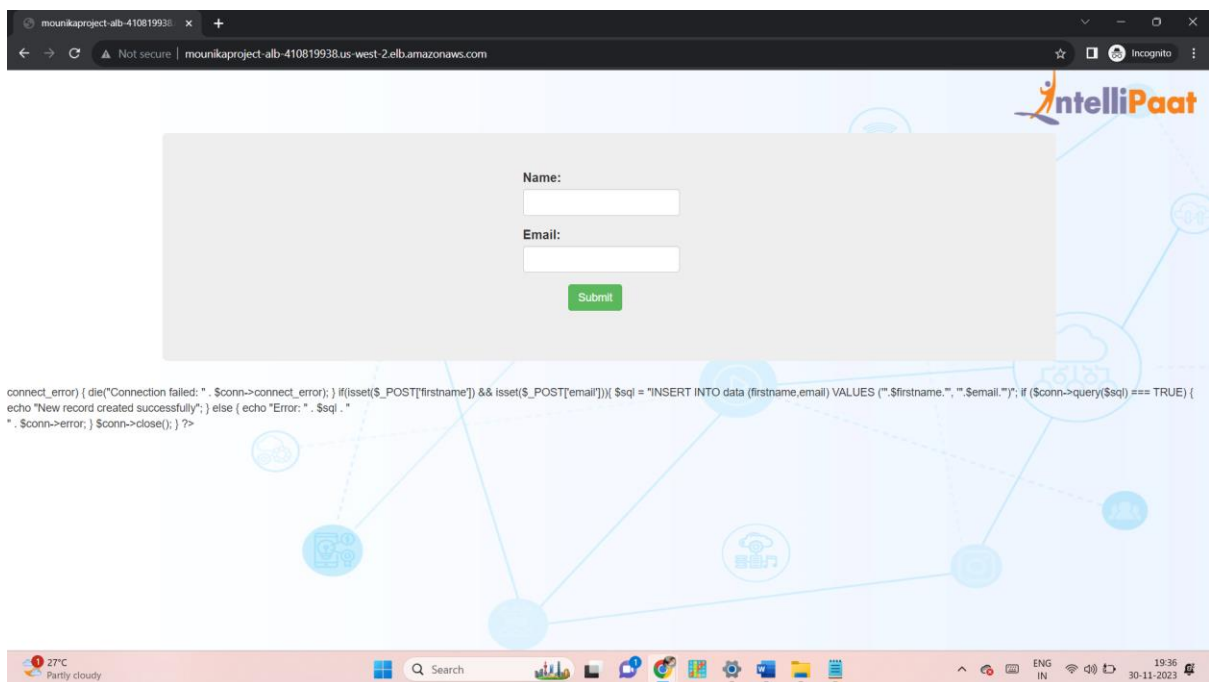
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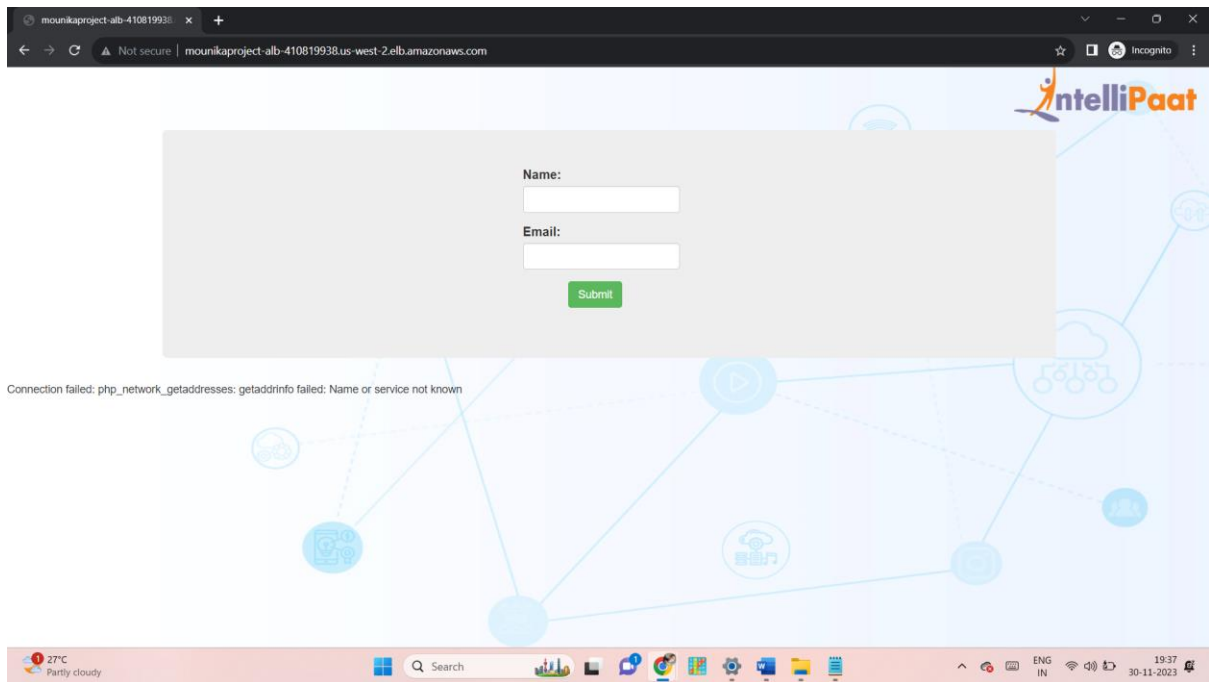
Search

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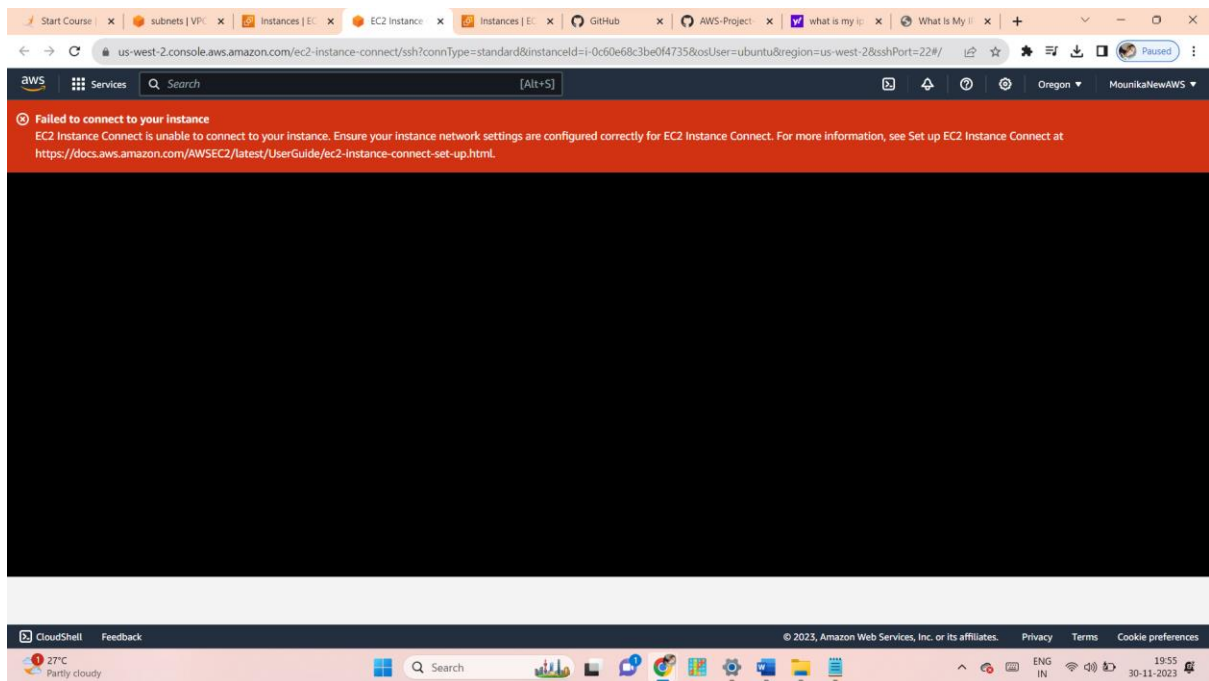


YOU WILL SEE BAD REQUEST ERROR

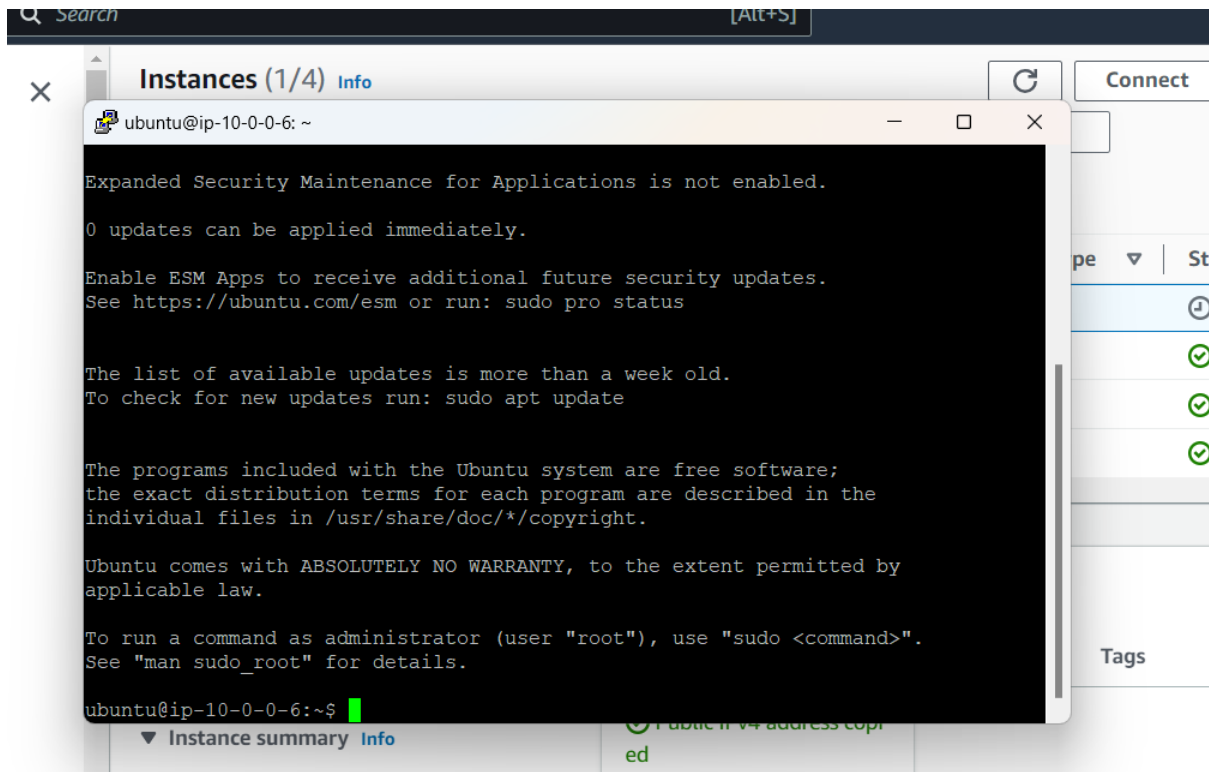




Not able to connect with putty



I was able to connect to putty



```
No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-10-0-0-6:~$ mysql -h mounikaproject-rds.cxi2g2gwptjv.us-west-2.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 32
Server version: 8.0.33 Source distribution

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owners.

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

mysql>
```

```

ubuntu@ip-10-0-0-6:~$
+-----+
| firstname | email |
+-----+
| Mounika   | saiediga3@gmail.com |
+-----+
1 row in set (0.00 sec)

mysql> quit;
bye
ubuntu@ip-10-0-0-6:~$ mysql -h mounikaproject-rds.cx12g2gwptjv.us-west-2-rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 35
Server version: 8.0.33 Source distribution

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owners.

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

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| intel       |
| mysql      |
| performance_schema |
| sys        |
+-----+
5 rows in set (0.00 sec)

mysql> use intel;
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> select * from data;
+-----+
| firstname | email |
+-----+
| Mounika   | saiediga3@gmail.com |
+-----+
1 row in set (0.00 sec)

mysql>

```

Until now we are secure with db tier , app tier is not secure

[illegible][illegible]

After creating a security group and attached to our ALB

You cannot see the configured data over there, even with private ip of instance and endpoint of alb

```
</div>
Connection failed: php_network_getaddresses: getad
ubuntu@ip-10-0-0-6:~$ curl 10.0.0.153
█
```

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```
ubuntu@ip-10-0-0-6:~$ curl MounikaProject-alb-410819938.us-west-2.elb.amazonaws.com
```