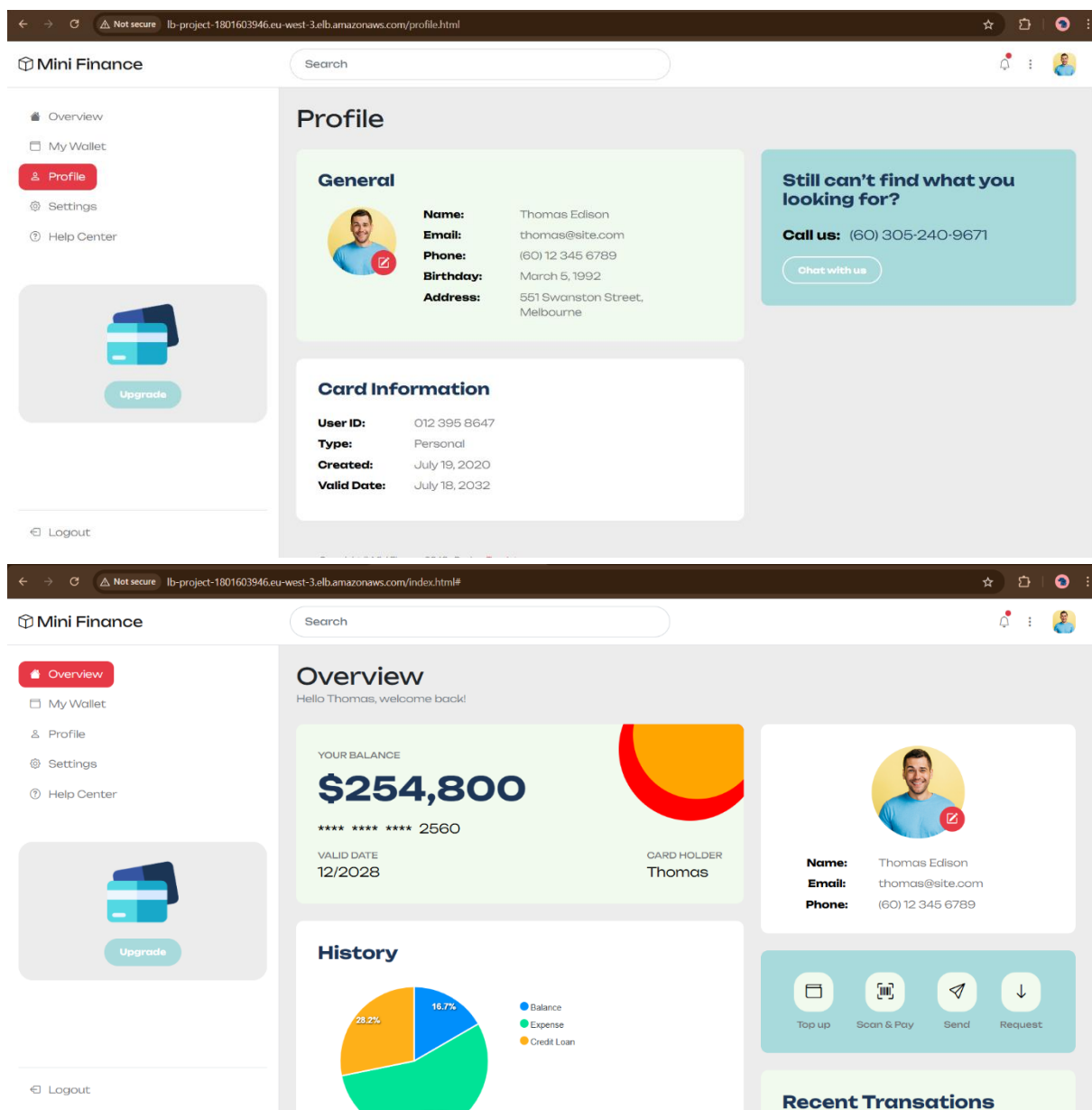


# AWS Project

## Project Overview:

Website hosting on AWS by creating a custom VPC with Auto Scaling, Application Load Balancer, and monitoring using CloudWatch. Also integrates Simple Notification Service (SNS) for alerts and notifications. And also created Private Database.

## Web Server With Load Balancer DNS



# EC2 INSTANCES

EC2

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Snapshots

Instances (4) Info

Last updated 36 minutes ago

Connect

Instance state

Actions

Launch instances

Find Instance by attribute or tag (case-sensitive)

Running

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 D
<input type="checkbox"/>	Jump-Server	i-03e8fd65b00d604e4	Running	t2.micro	⌚ Initializing	View alarms +	eu-west-3a	-
<input type="checkbox"/>	Database-Se...	i-047a6419a72d2ce0b	Running	t2.micro	2/2 checks passed	View alarms +	eu-west-3a	-
<input type="checkbox"/>	webserver1	i-069eb48795f85816b	Running	t2.micro	2/2 checks passed	View alarms +	eu-west-3a	-
<input type="checkbox"/>	webserver2	i-0e80a4818b0eeadab	Running	t2.micro	2/2 checks passed	View alarms +	eu-west-3a	-

Select an instance

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# VPC

VPC

EC2 Global View

Filter by VPC

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Your VPCs

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Route tables

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Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

Security

Network ACLs

Security groups

Your VPCs (2) Info

Last updated less than a minute ago

Actions

Create VPC

Find VPCs by attribute or tag

	Name	VPC ID	State	Block Public...	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	-	vpc-0820cb1a7f43cce6a	Available	Off	172.31.0.0/16	-
<input type="checkbox"/>	VPC-Project	vpc-02e249fe2615cc4ff	Available	Off	10.10.0.0/16	-

Select a VPC above

# Subnets

Subnets

Subnets

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Subnets (4) Info

Last updated about 1 hour ago

Actions

Create subnet

Find subnets by attribute or tag

<input type="checkbox"/>	Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
<input type="checkbox"/>	public-subnet	subnet-035b5c1971411824c	Available	vpc-02e249fe2615cc4ff   VPC-P...	Off	10.10.1.0/24
<input type="checkbox"/>	private-subnet	subnet-0f3a43b835db2d509	Available	vpc-02e249fe2615cc4ff   VPC-P...	Off	10.10.2.0/24
<input type="checkbox"/>	public-subnet2	subnet-0f7aeb0f1820c3924	Available	vpc-02e249fe2615cc4ff   VPC-P...	Off	10.10.3.0/24
<input type="checkbox"/>	default	subnet-07c293a63fee74294	Available	vpc-0820cb1a7f43cce6a	Off	172.31.0.0/16

Select a subnet

# Route Tables

Route tables

Route tables

EC2 Global View

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Route tables

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Route tables (5) Info

Last updated 1 minute ago

Actions

Create route table

Find route tables by attribute or tag

<input type="checkbox"/>	Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
<input type="checkbox"/>	-	rtb-0171fef09dfbc80c7	-	-	Yes	vpc-0820cb1a7f43cce6a
<input type="checkbox"/>	-	rtb-0db98f40014f69cd1	-	-	Yes	vpc-02e249fe2615cc4ff   VPC...
<input type="checkbox"/>	private-RT	rtb-02c89aba3a38e06c1	subnet-0f3a43b835db2d...	-	No	vpc-02e249fe2615cc4ff   VPC...
<input type="checkbox"/>	public-RT	rtb-0ca78929918585b87	subnet-035b5c19714118...	-	No	vpc-02e249fe2615cc4ff   VPC...
<input type="checkbox"/>	RDS-Pvt-rt	rtb-032b6e52d4ae03188	-	-	No	vpc-02e249fe2615cc4ff   VPC...

Select a route table

# SNS

The screenshot shows the AWS SNS console interface. The top navigation bar includes the AWS logo, a search bar, and user information (Europe (Paris), Pruthviraj Powar). The left sidebar shows the navigation menu with options like Dashboard, Topics, Subscriptions, and Mobile. The main content area displays the details for a specific subscription: **Subscription: 3add8838-6bb7-46c3-b7b4-2479d531e818**. The details section includes the ARN, Endpoint (pruthvirajspowar@gmail.com), Topic (Topic-project), and Subscription Principal. The status is **Confirmed** and the protocol is **EMAIL**. Below the details, there are tabs for **Subscription filter policy** and **Redrive policy (dead-letter queue)**. The filter policy section indicates that no filter policy is configured for this subscription.

# Email

The screenshot shows a Gmail inbox with several emails from AWS Notifications. The emails are listed in a table with columns for checkboxes, stars, subject lines, and timestamps. The subjects include "ALARM: 'Alarm for CPU < 20%' in EU (Paris)", "Auto Scaling: launch for group 'ASG-Project'", and "AWS Notification - Subscription Confirmation".

Check	Star	Subject	Timestamp
<input type="checkbox"/>	☆	ALARM: "Alarm for CPU < 20%" in EU (Paris) - You are receiving this email because your Amazon CloudWatch Alarm "Alarm fo...	10:29 AM
<input type="checkbox"/>	☆	Auto Scaling: launch for group "ASG-Project" - Service: AWS Auto Scaling Time: 2025-07-02T04:47:20.302Z RequestId: b02...	10:17 AM
<input type="checkbox"/>	☆	Auto Scaling: test notification for group "ASG-Project" - Service: AWS Auto Scaling Time: 2025-07-02T04:47:09.395Z Reque...	10:17 AM
<input type="checkbox"/>	☆	AWS Notification - Subscription Confirmation - You have chosen to subscribe to the topic: arn:aws:sns:eu-west-3:528757822...	10:09 AM

# Email for Alarms

The screenshot shows a Gmail inbox with an email from AWS Notifications. The email subject is "ALARM: 'Alarm for CPU < 20%' in EU (Paris)". The email content includes details about the alarm state change, the threshold crossed, and the monitored metric (CPUUtilization). The email is timestamped "10:29 AM (59 minutes ago)".

**Alarm Details:**

- Name: Alarm for CPU < 20%
- Description: INSUFFICIENT\_DATA -> ALARM
- State Change: Threshold Crossed. 1 out of the last 1 datapoints [3.0857571839591995 (02/07/25 04:54:00)] was less than the threshold (20.0) (minimum 1 datapoint for OK -> ALARM transition).
- Reason for State Change: Threshold Crossed. 1 out of the last 1 datapoints [3.0857571839591995 (02/07/25 04:54:00)] was less than the threshold (20.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Wednesday 02 July, 2025 04:59:11 UTC
- AWS Account: 528757822835
- Alarm Arn: arn:aws:cloudwatch:eu-west-3:528757822835:alarm:Alarm for CPU < 20%

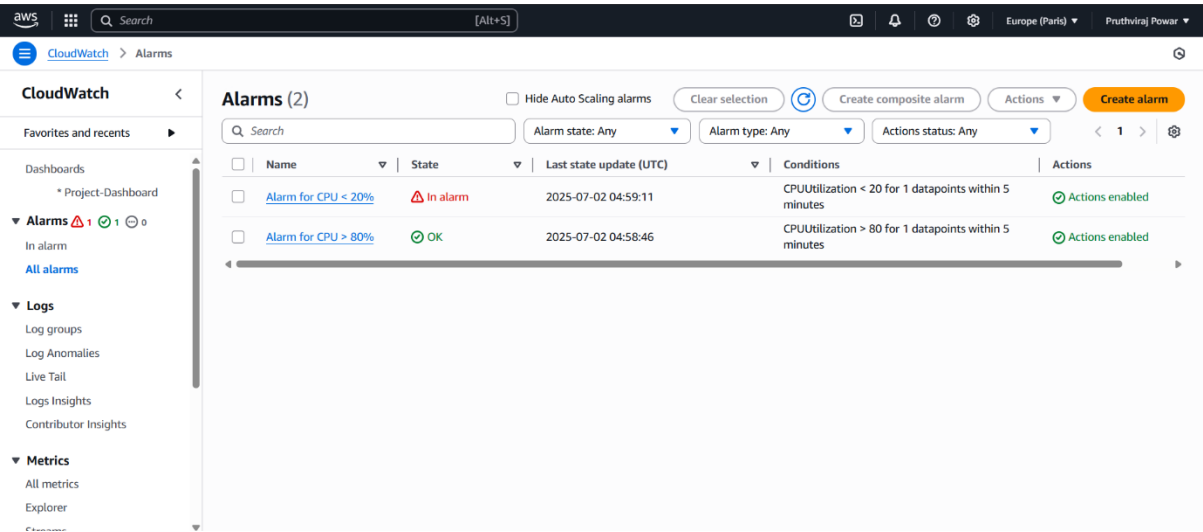
**Threshold:**

- The alarm is in the ALARM state when the metric is LessThanThreshold 20.0 for at least 1 of the last 1 period(s) of 300 seconds.

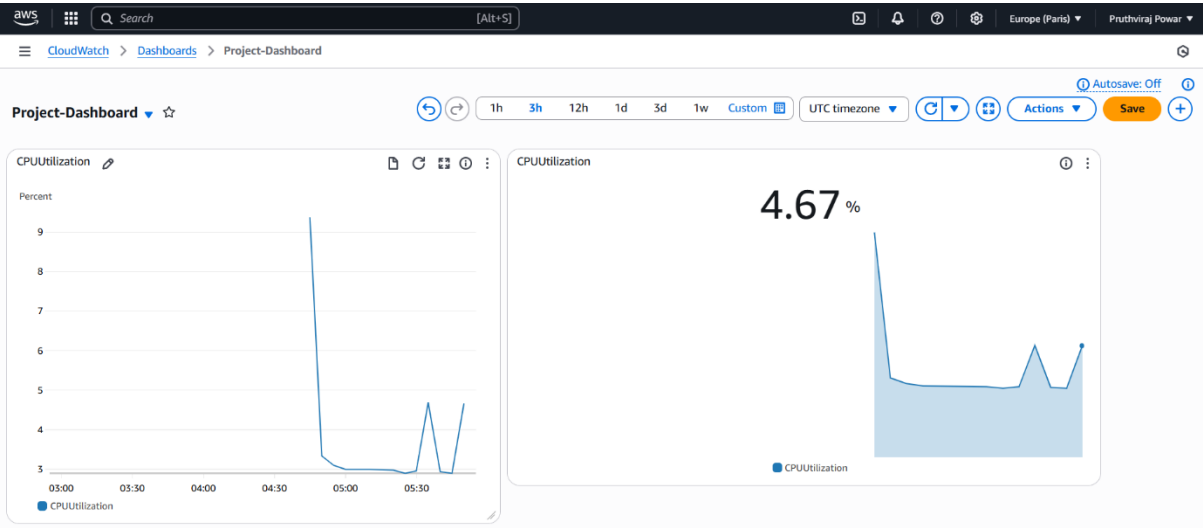
**Monitored Metric:**

- MetricNamespace: AWS/EC2
- MetricName: CPUUtilization
- Dimensions: [AutoScalingGroupName = ASG-Project]
- Period: 300 seconds
- Statistic: Average

# CloudWatch Alarms



# CloudWatch Dashboard



# Aurora and RDS

The screenshot displays the AWS Management Console interface for an Amazon RDS instance. The left sidebar shows the navigation menu with 'Aurora and RDS' selected. The main content area shows the details for the instance 'db-project'. The 'Summary' section includes the DB identifier 'db-project', status 'Available', role 'Instance', engine 'MySQL Community', and region 'eu-west-3a'. The 'Connectivity & security' section shows the endpoint 'db-project.c5eo2m6w4w3a.eu-west-3.rds.amazonaws.com', port '3306', availability zone 'eu-west-3a', VPC 'VPC-Project (vpc-02e249fe2615cc4ff)', and subnet group 'rds-ec2-db-subnet-group-1'. The 'Security' section shows VPC security groups 'rds-ec2-4 (sg-04913ea23a8b87d60)' and 'SG-mysql-Project (sg-0581a8625e909134b)', both active, and the instance is 'Publicly accessible'.

**Aurora and RDS**

Dashboard  
Databases  
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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

**db-project**

**Summary**

<b>DB identifier</b> db-project	<b>Status</b> Available	<b>Role</b> Instance	<b>Engine</b> MySQL Community	<b>Recommendations</b>
<b>CPU</b> 3.07%	<b>Class</b> db.t4g.micro	<b>Current activity</b> 1 Connections	<b>Region &amp; AZ</b> eu-west-3a	

**Connectivity & security**

<b>Endpoint &amp; port</b>	<b>Networking</b>	<b>Security</b>
<b>Endpoint</b> db-project.c5eo2m6w4w3a.eu-west-3.rds.amazonaws.com	<b>Availability Zone</b> eu-west-3a	<b>VPC security groups</b> rds-ec2-4 (sg-04913ea23a8b87d60) SG-mysql-Project (sg-0581a8625e909134b)
<b>Port</b> 3306	<b>VPC</b> VPC-Project (vpc-02e249fe2615cc4ff)	Active
	<b>Subnet group</b> rds-ec2-db-subnet-group-1	Active
		Publicly accessible

## Databases

```
MySQL [db1]> show databases;
+-----+
| Database |
+-----+
| db1      |
| information_schema |
| mysql    |
| performance_schema |
| sys      |
+-----+
5 rows in set (0.00 sec)
```

# Db1

```
MySQL [db1]> SELECT * FROM loan_customer;
```

customer_id	name	loan	loan_tenure	loan_type	interest_rate	loan_start_date	loan_status
1	Ravi Sharma	500000.00	36	education	8.50	2024-01-10	active
2	Sneha Patil	1200000.00	60	home	7.25	2023-11-20	active
3	Amit Verma	300000.00	24	personal	10.75	2024-03-01	active
4	Nikhil Joshi	800000.00	48	car	9.50	2022-07-15	completed
5	Pooja Desai	650000.00	36	education	8.75	2023-09-05	active
6	Karan Malhotra	1500000.00	84	home	6.90	2021-12-12	defaulted
7	Meena Iyer	400000.00	24	personal	11.25	2024-02-10	active
8	Rajesh Kumar	2000000.00	120	home	6.75	2020-06-01	completed
9	Divya Shetty	750000.00	36	education	8.60	2023-10-25	active
10	Arjun Reddy	900000.00	60	car	9.10	2022-03-18	active
11	Nikita Jain	500000.00	36	personal	10.25	2024-04-12	

11 rows in set (0.00 sec)

THANK YOU