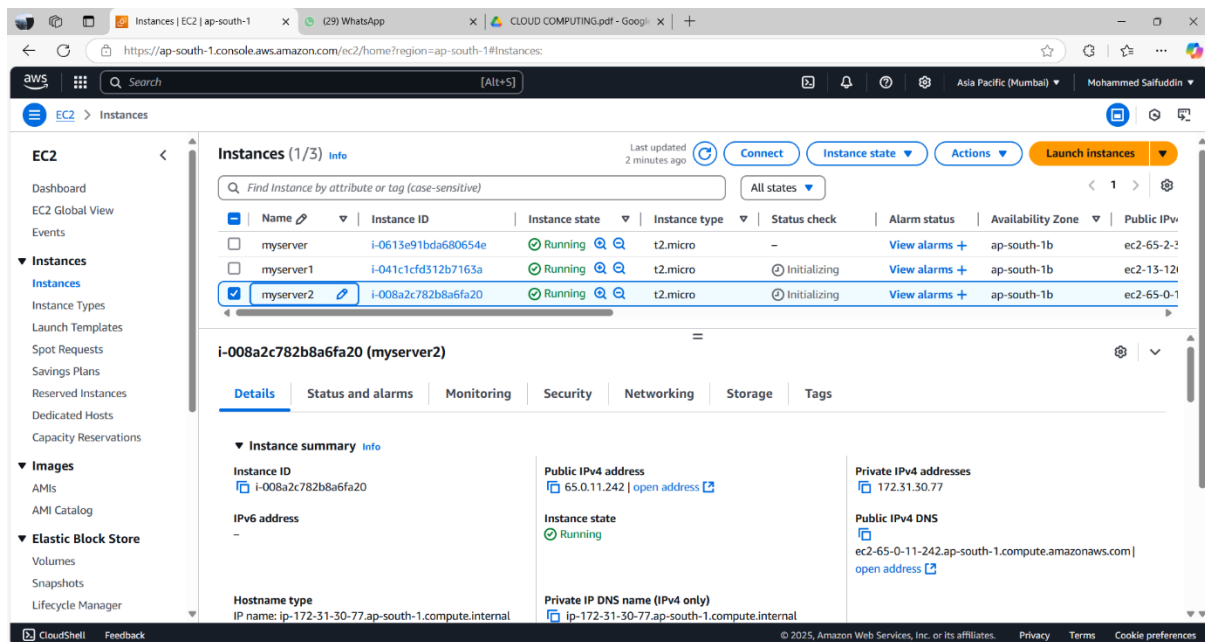


TASK -2

SET UP MONITORING FOR A CLOUD-BASED APPLICATION USING AWS, GOOGLE CLOUD, OR AZURE MONITOR. MONITORING AND ALERT

DELIVERABLE: CONFIGURED ALERTS AND A DASHBOARD SHOWCASING METRICS.

- **Launching the instances**



- **Creating a SNS notification**

Application Integration

Amazon Simple Notification Service

Pub/sub messaging for microservices and serverless applications.

Amazon SNS is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and event-driven serverless applications. Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging.

Create topic

Topic name
A topic is a message channel. When you publish a message to a topic, it fans out the message to all subscribed endpoints.

Next step

[Start with an overview](#)

Pricing

Amazon SNS has no upfront costs. You pay based on the number of messages you publish, the number of messages you deliver, and any additional API calls for managing topics and subscriptions. Delivery pricing varies by endpoint type.

[Learn more](#)

Benefits and features

Reliably deliver messages with durability
Amazon SNS uses cross availability zone

Automatically scale your workload
Amazon SNS leverages the proven AWS

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- **Creating a subscription**

Amazon SNS > Subscriptions > Create subscription

Topic ARN

Protocol
The type of endpoint to subscribe

Endpoint
An email address that can receive notifications from Amazon SNS.

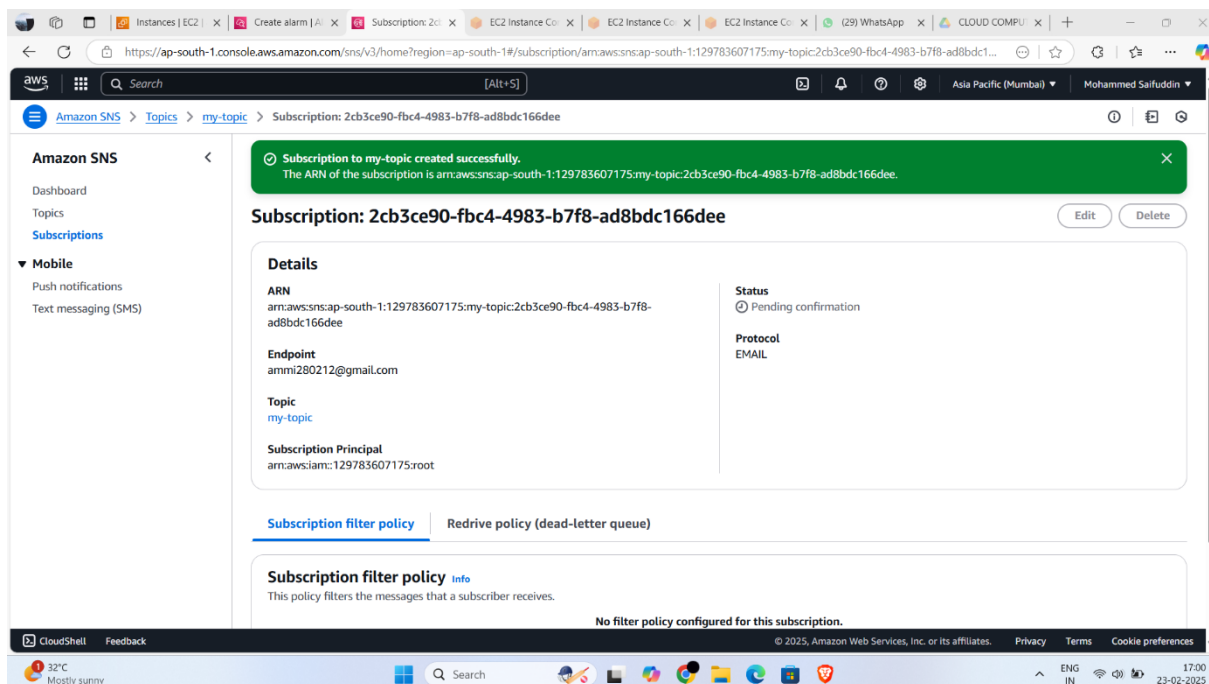
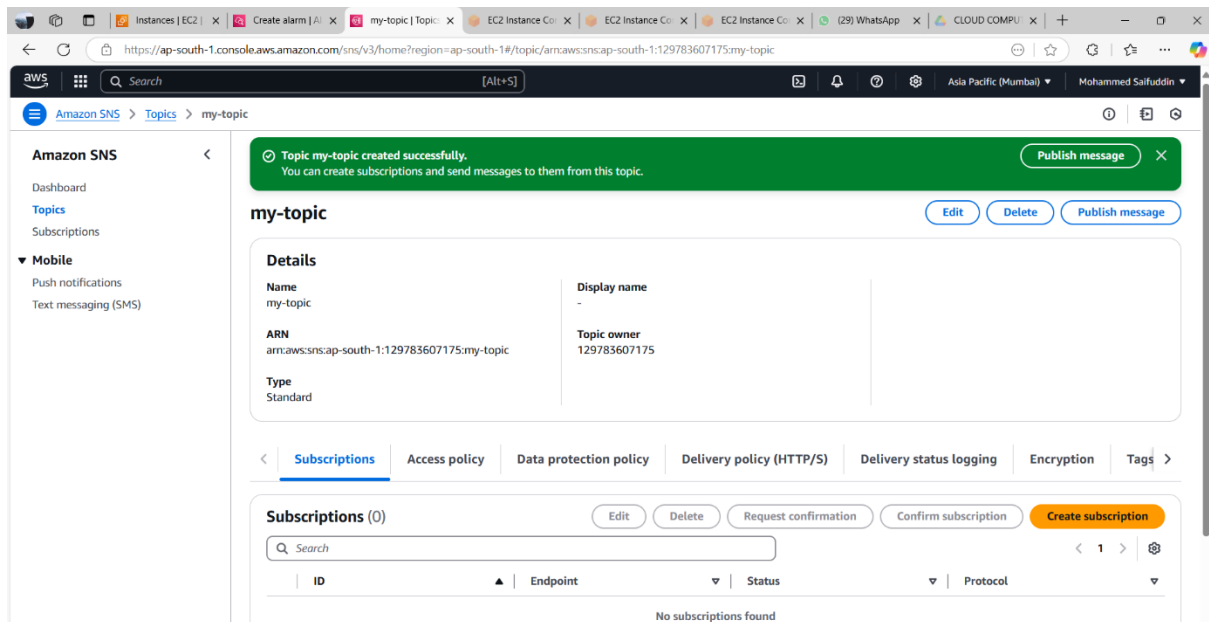
After your subscription is created, you must confirm it. [info](#)

► **Subscription filter policy - optional** [info](#)
This policy filters the messages that a subscriber receives.

► **Redrive policy (dead-letter queue) - optional** [info](#)
Send undeliverable messages to a dead-letter queue.

[Cancel](#) [Create subscription](#)

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- Creating alerts and alarms

Instances | EC2 | ap-...

Create alarm | Al...Subscription: 2...EC2 Instance Co...EC2 Instance Co...EC2 Instance Co... (29) WhatsApp...CLOUD COMPUTI...+--

https://ap-south-1.console.aws.amazon.com/cloudwatch/home?region=ap-south-1#alarmsV2:create?~(Page~Details~AlarmType~MetricAlarm~AlarmData~(Namespace~AWS~2fEC2...)|

Search[Alt+S]

Asia Pacific (Mumbai)Mohammed Saifuddin

CloudWatch>Alarms>Create alarm

Step 1Specify metric and conditionsStep 2Configure actionsStep 3Add name and descriptionStep 4Preview and create

Add name and description

Name and description

Alarm name

High-cpu -usage

Alarm description - optional [View formatting guidelines](#)

EditPreview

This is an H1
double asterisks will produce strong character
This is [an example](https://example.com/) inline link.

Up to 1024 characters (0/1024)

Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.

CancelPreviousNext

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Instances | EC2 | ap-...

Create alarm | Alarm...EC2 Instance Conne...EC2 Instance Conne...EC2 Instance Conne... (29) WhatsApp...CLOUD COMPUTIN...+--

https://ap-south-1.console.aws.amazon.com/cloudwatch/home?region=ap-south-1#alarmsV2:create?~(Page~MetricSelection~AlarmType~MetricAlarm~AlarmData~(Namespace~AW...)|

Search[Alt+S]

Asia Pacific (Mumbai)Mohammed Saifuddin

CloudWatch>Alarms>Create alarm

Alarm recommendations available
Turn on Recommendations to pre-populate the wizard with the recommended alarms.

Step 1Specify metric and conditionsStep 2Configure actionsStep 3Add name and descriptionStep 4Preview and create

Specify metric and conditions

Metric

Graph
This alarm will trigger when the blue line goes above the red line for 1 datapoints within 5 minutes.

No unit

10.50

CPUUtilization

Namespace
AWS/EC2

Metric name

CPUUtilization

InstanceId

i-00b20a0d5da40aff0

Instance name
No name specified

Statistic

Average

Alarm recommendationsView details

Additional charges apply for High-Resolution Alarms with periods less than one minute. [Learn more](#)

Conditions

Threshold type

☒ **Static**
Use a value as a threshold

☐ **Anomaly detection**
Use a band as a threshold

Whenever CPUUtilization is...
Define the alarm condition.

☐ **Greater**
> threshold

☒ **Greater/Equal**
≥ threshold

☐ **Lower/Equal**
≤ threshold

☐ **Lower**
< threshold

than...
Define the threshold value.

150

Must be a number

► **Additional configuration**

[Cancel](#) [Next](#)

► **Additional configuration**

Step 2: Configure actions

[Edit](#)

Actions

Notification
When in alarm, send a notification to "my-topic"

Step 3: Add name and description

[Edit](#)

Name and description

Name
High-cpu-usage

Description
-

[Cancel](#) [Previous](#) [Create alarm](#)

- Putting stress on cpu for monitoring

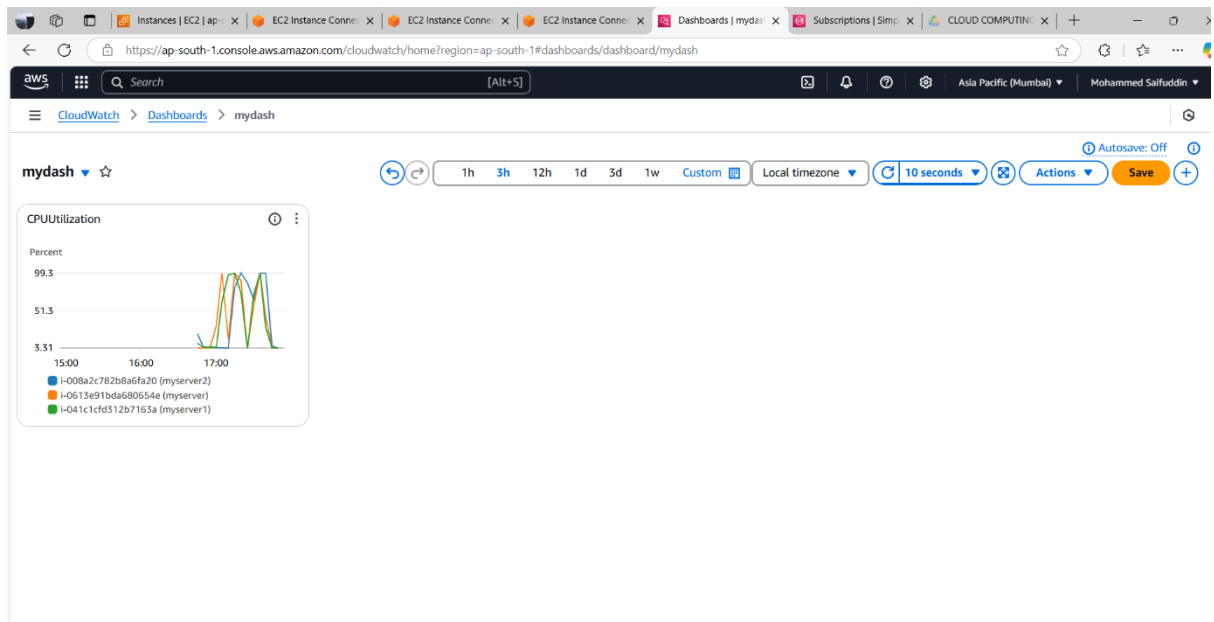
```
stress x86_64 1.0.7-2.amzn2023.0.1 amazonlinux 34 k
Transaction Summary
Install 1 Package
Total download size: 34 k
Installed size: 68 k
Downloading Packages:
stress-1.0.7-2.amzn2023.0.1.x86_64.rpm 943 kB/s | 34 kB 00:00
Total 491 kB/s | 34 kB 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing :
Installing : stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Running scriptlet: stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Verifying : stress-1.0.7-2.amzn2023.0.1.x86_64 1/1
Installed:
stress-1.0.7-2.amzn2023.0.1.x86_64
Complete!
[ec2-user@ip-172-31-26-203 ~]$ stress --cpu 8 -t 400
stress: info: [27585] dispatching hogs: 8 cpu, 0 io, 0 vm, 0 hdd

i-0613e91bda680654e (myserver)
PublicIPs: 65.2.35.35 PrivateIPs: 172.31.26.203
```

```
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
Last login: Sun Feb 23 11:21:06 2025 from 13.233.177.4
[ec2-user@ip-172-31-26-203 ~]$ sudo yum install stress -y

i-0613e91bda680654e (myserver)
PublicIPs: 65.2.35.35 PrivateIPs: 172.31.26.203
```

- **Creating a Dashboard for monitoring**



CloudWatch

Alarms (1)

Some subscriptions are pending confirmation
Amazon SNS doesn't send messages to an endpoint until the subscription is confirmed

View SNS Subscriptions

Hide Auto Scaling alarms

Clear selection

Create composite alarm

Actions

Create alarm

Search

Alarm state: Any

Alarm type: Any

Actions status: Any

Name	State	Last state update (Local)	Conditions	Actions
High-cpu-usage	OK	2025-02-23 17:30:44	CPUUtilization >= 50 for 1 datapoints within 30 seconds	Actions enabled Warning

CloudShell

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Search

ENG IN

17:33

23-02-2025

