

2.Create a Alarm setup for the EC2 when a server reach 10%CPU

- **Components:**

- EC2 instance
- CloudWatch
- SNS (Simple Notification Service)

step-by-step Instructions:

- **Creation of ec2 instance and SNS**

- create an ec2-instance firstly with name (e.g.,myinstance)
- Navigate to the SNS dashboard and creates a topic (e.g., MySNS)
- Click on "create topic"

- **Create a cloudwatch alarm :**

- Navigate to the CloudWatch dashboard
- Click "Alarms" > "Create alarm"
- Select "EC2" as the metric source
- Choose the EC2 instance and metric (CPUUtilization)
- Set the threshold to 10%
- Set the evaluation period to 1 minute (or our desired value)
- Click "Create alarm"

- **Configure the alarm action and verifying the alarm:**

- In the alarm configuration, click "Actions"
- Select "Send notification to SNS topic"
- Choose the SNS topic created in SNS directly also
- Click "Save changes"
- Monitor the EC2 instance's CPU usage
- When the CPU usage reaches 10%, the alarm should trigger
- Check the SNS topic for the notification and subscription protocol (using email)

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with options like EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images (AMIs, AMI Catalog), and Elastic Block Store (Volumes, Snapshots, Lifecycle Manager). The main content area displays a table titled 'Instances (1/1) Info'. It shows one instance: 'myinstance' (Instance ID: i-0156937aeda694457), which is 'Running' (Status check: 2/2 checks passed), an 't2.micro' instance type, located in 'ap-south-1a' Availability Zone, with a Public IPv4 DNS of 'ec2-65-0-30-121.ap-south-1.amazonaws.com'. There are buttons for 'Connect', 'Actions', and 'Launch instances'. Below the table, there's a section for 'CloudWatch agent metrics' with a note: 'The monitoring tab will now include metrics related to a single instance in the CWAgent namespace. If you want metrics that are emitted from the CloudWatch agent to be displayed, include them in the CWAgent namespace.'

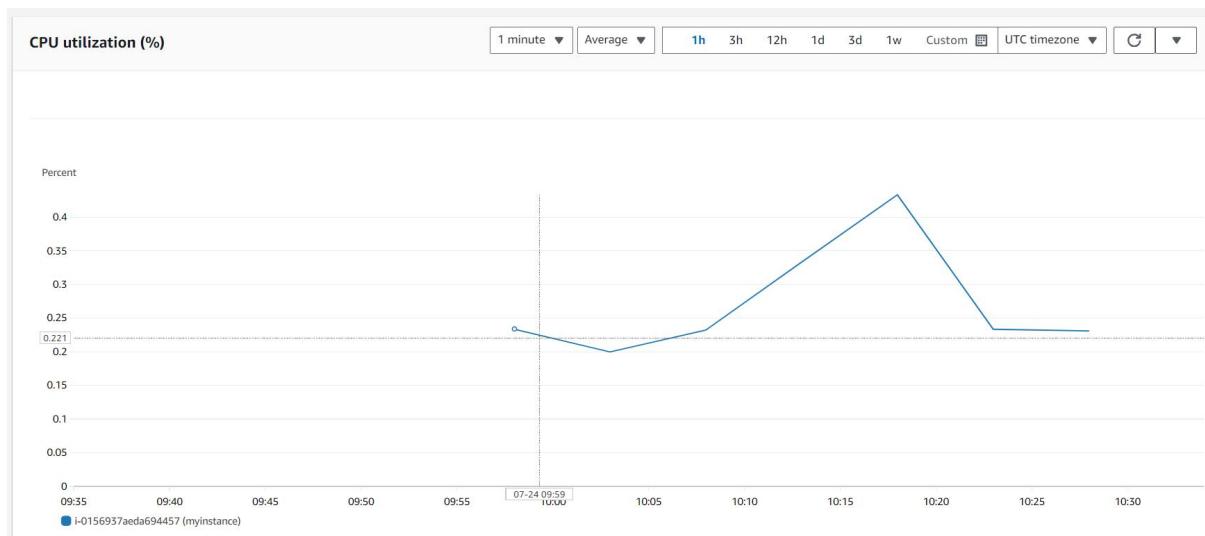
1. Created an ec2-instance

The screenshot shows the AWS SNS Subscriptions page. The left sidebar includes options for Dashboard, Topics, Subscriptions (selected), and Mobile (Push notifications, Text messaging (SMS), Origination numbers). The main content area shows a 'New Feature' message: 'Amazon SNS now supports in-place message archiving and replay for FIFO topics. Learn more'. Below it, a 'Subscription: 3327d5d2-aade-4ad7-bceb-af9c14062266' is listed. The subscription details are as follows:

Details	
ARN	Status
arn:aws:sns:ap-south-1:730335216686:MySNS:3327d5d2-aade-4ad7-bceb-af9c14062266	Confirmed
Endpoint	Protocol
siddhaigarunoorjahan@gmail.com	EMAIL
Topic	
MySNS	
Subscription Principal	
arn:aws:iam::730335216686:root	

At the bottom, there are buttons for 'Subscription filter policy' and 'Redrive policy (dead-letter queue)'.

2. Created SNS with subscription protocol through an Email



Gmail

Compose

Inbox 1,279

Starred
Snoozed
Sent
Drafts 16
More

Labels +

Search mail

ALARM: "ec2-alarm for cpu-utilization" in Asia Pacific (Mumbai) [Inbox x](#)

MySNS <no-reply@sns.amazonaws.com> to me ▾ 18:13 (8 minutes ago)

You are receiving this email because your Amazon CloudWatch Alarm "ec2-alarm for cpu-utilization" in the Asia Pacific (Mumbai) region has entered the ALARM state, because "Threshold Crossed: 1 out of the last 1 datapoints [58.80169491525423 (24/07/24 12:38:00)] was greater than the threshold (10.0) (minimum 1 datapoint for OK -> ALARM transition)" at "Wednesday 24 July, 2024 12:43:33 UTC".

[View this alarm in the AWS Management Console.](#)
<https://ap-south-1.console.aws.amazon.com/cloudwatch/deeplink.js?region=ap-south-1#alarmsV2:alarm/ec2-alarm%20for%20cpu-utilization>

Alarm Details:

- Name: ec2-alarm for cpu-utilization
- Description: Hi Noorjanan. Instance CPU utilization threshold should be stopped after 10% crossed
- State Change: INSUFFICIENT_DATA -> ALARM
- Reason for State Change: Threshold Crossed: 1 out of the last 1 datapoints [58.80169491525423 (24/07/24 12:38:00)] was greater than the threshold (10.0) (minimum 1 datapoint for OK -> ALARM transition).
- Timestamp: Wednesday 24 July, 2024 12:43:33 UTC
- AWS Account: 730335216686
- Alarm Arn: arn:aws:cloudwatch:ap-south-1:730335216686:alarm:ec2-alarm for cpu-utilization

Threshold:

- The alarm is in the ALARM state when the metric is GreaterThanThreshold 10.0 for at least 1 of the last 1 period(s) of 60 seconds.

Monitored Metric:

- MetricNamespace: AWS/EC2
- MetricName: CPUUtilization
- Dimensions: [InstanceId = i-0156937aeda694457]
- Period: 60 seconds
- Statistic: Average
- Unit: not specified
- TreatMissingData: missing

By following these steps, you'll receive notifications when your EC2 instance's CPU usage reaches 10%. You can adjust the threshold and evaluation period to suit your needs.