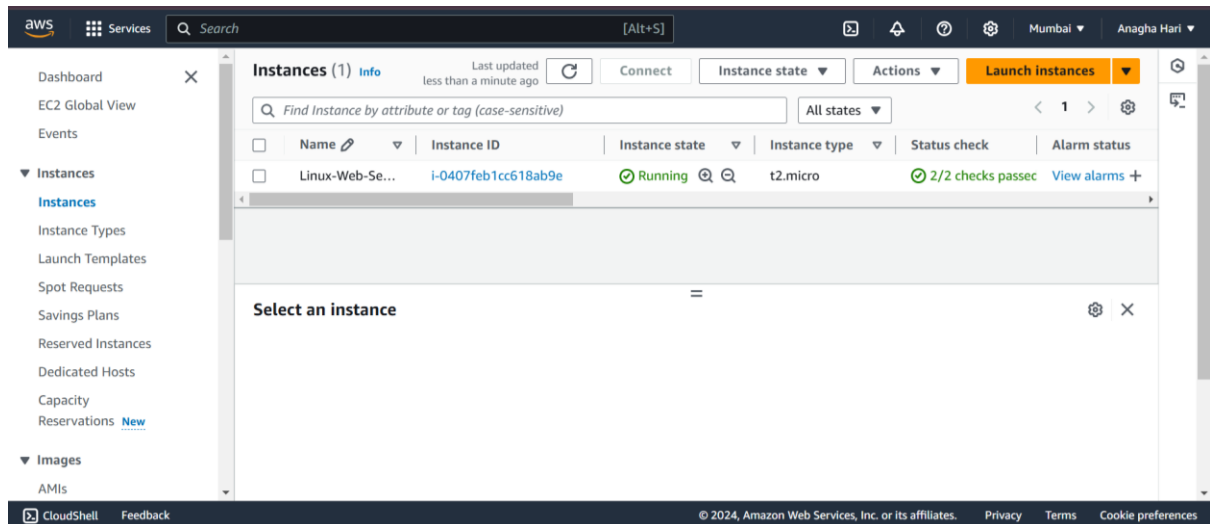


MONITORING

ASSIGNMENT 1

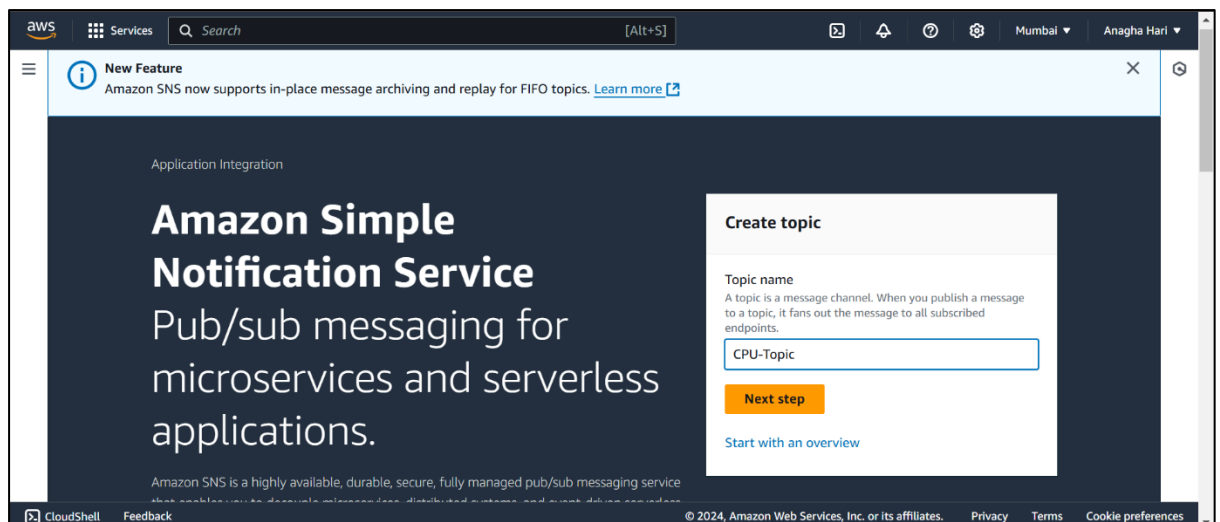
CloudWatch alarms allows one to monitor specific metrics of EC2 instances and trigger actions based on predefined thresholds.

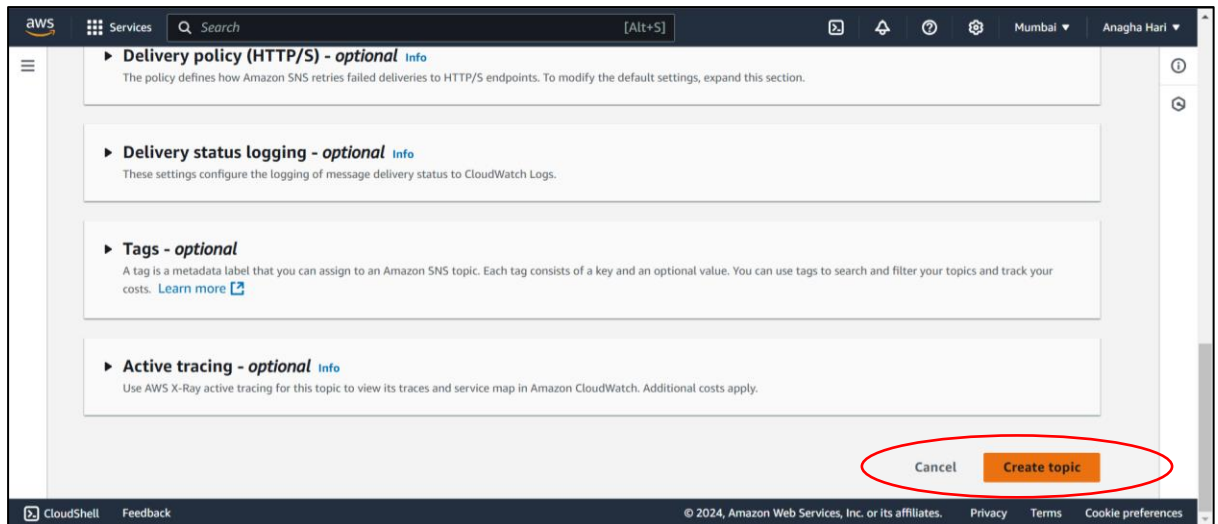
Launch a server



Create a SNS topic

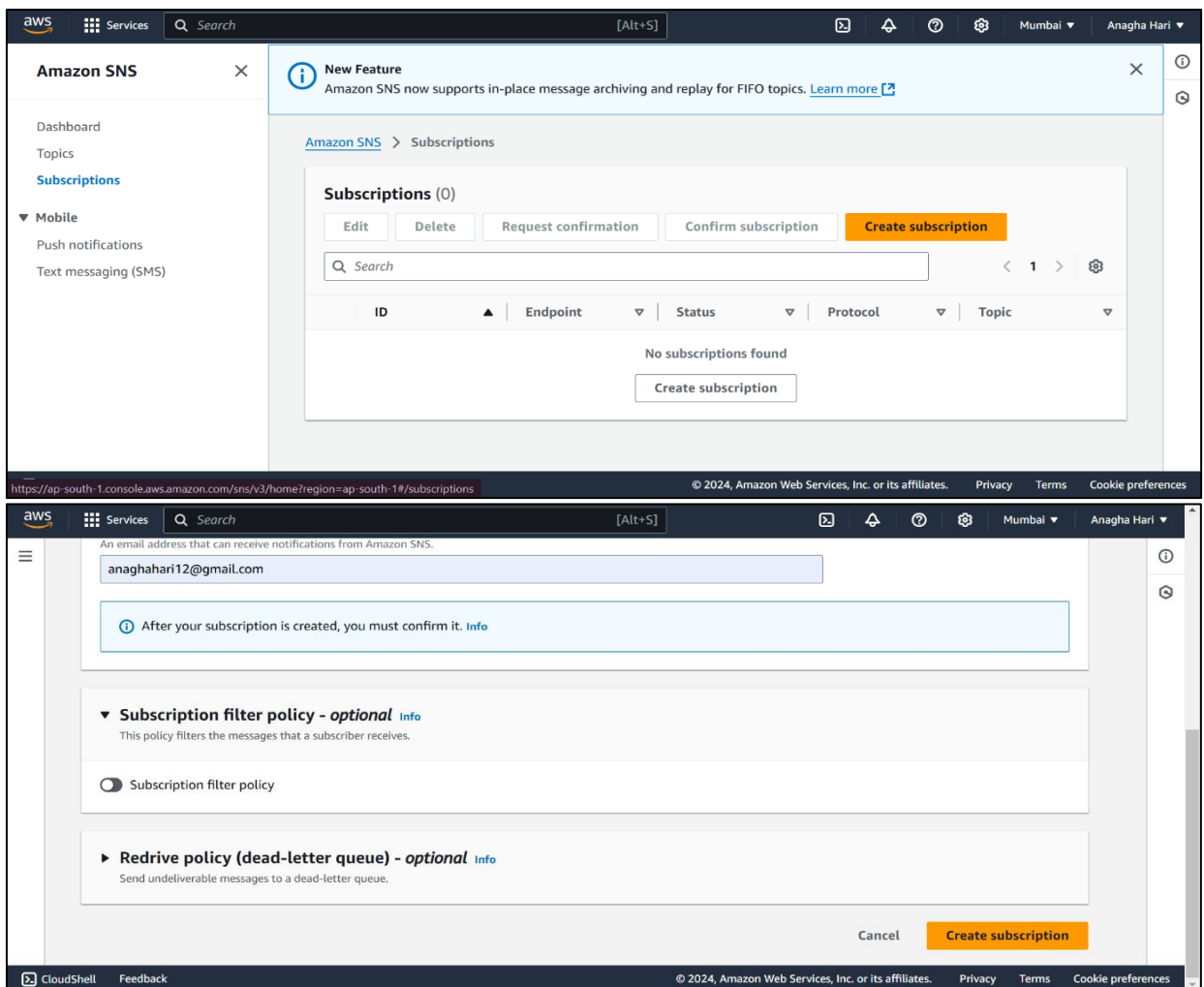
1. Navigate to Simple Notification Service.
2. Select “Create Topic”.
3. Set the necessary settings and click on “Create Topic”.





Creating subscription

1. Select "Subscription" from the side pane.
2. Click on "create subscription".
3. Select protocol as email and enter the email address to which the notification should be send.
4. Click on "Create Subscription".
5. To change the pending status, login to the gmail id given and click on Confirm subscription.
6. Refresh the subscription page in the ASW console to see the status.



aws Services Search [Alt+S] Mumbai Anagha Hari

Amazon SNS

Dashboard
Topics
Subscriptions

▼ Mobile
Push notifications
Text messaging (SMS)

Subscription to CPU-Topic created successfully.
The ARN of the subscription is arn:aws:sns:ap-south-1:739275448450:CPU-Topic:185b2df0-9b03-49a3-bc44-691a72031ef5.

Amazon SNS > Topics > CPU-Topic > Subscription: 185b2df0-9b03-49a3-bc44-691a72031ef5

Subscription: 185b2df0-9b03-49a3-bc44-691a72031ef5

Edit Delete

Details

ARN arn:aws:sns:ap-south-1:739275448450:CPU-Topic:185b2df0-9b03-49a3-bc44-691a72031ef5	Status Pending confirmation
Endpoint anaghahari12@gmail.com	Protocol EMAIL

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mail.google.com/mail/u/1/?ogbl#inbox/FMfcgzQXKDZpCdtwCHqHSNSqDwrcqHJB

Vskills LMS R.A.C.E Institute Onl... Your Dashboard | Fo... Cisco Skills For All Dashboard | ExcelR Courses and Guided... GOLD 2,297.07 FXStreet - The Forel...

Gmail Search mail

Compose

Inbox 1
Starred
Snoozed
Sent
Drafts
More

Labels +

AWS Notification - Subscription Confirmation

AWS Notifications <no-reply@sns.amazonaws.com> to me 3:55 PM (0 minutes ago)

You have chosen to subscribe to the topic:
arn:aws:sns:ap-south-1:739275448450:CPU-Topic

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):
[Confirm subscription](#)

Please do not reply directly to this email. If you wish to remove yourself from receiving all future SNS subscription confirmation requests please send an email to [sns-opt-out](#)

Reply Forward

sns.ap-south-1.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:ap-south-1:739275448450:CPU-Topic&Token=2336412f37fb687f5d51e6e2425b...

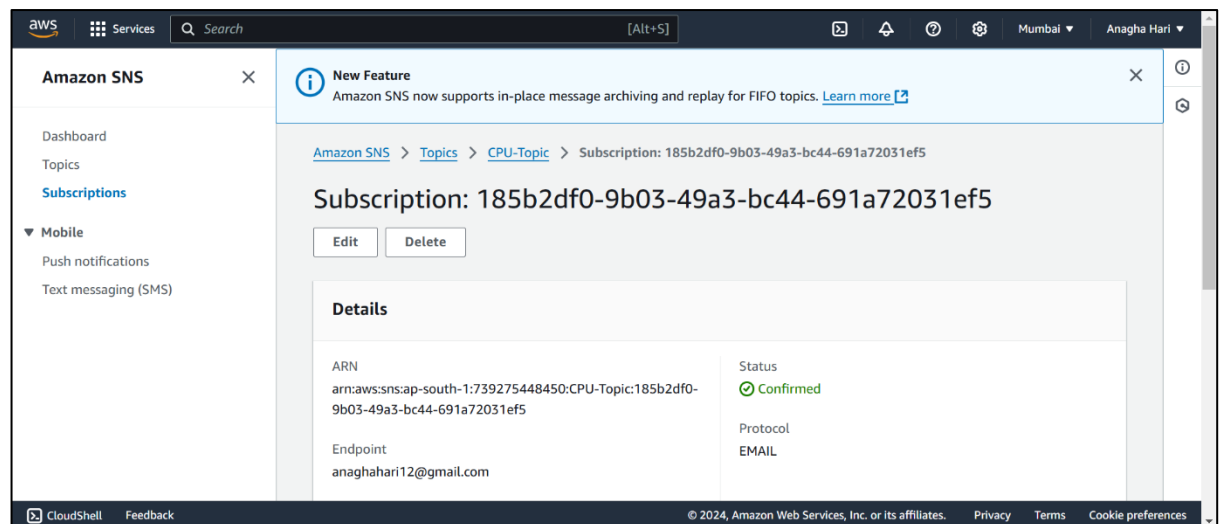
Vskills LMS R.A.C.E Institute Onl... Your Dashboard | Fo... Cisco Skills For All Dashboard | ExcelR Courses and Guided... GOLD 2,297.07 FXStreet - The Forel...

aws Simple Notification Service

Subscription confirmed!
You have successfully subscribed.

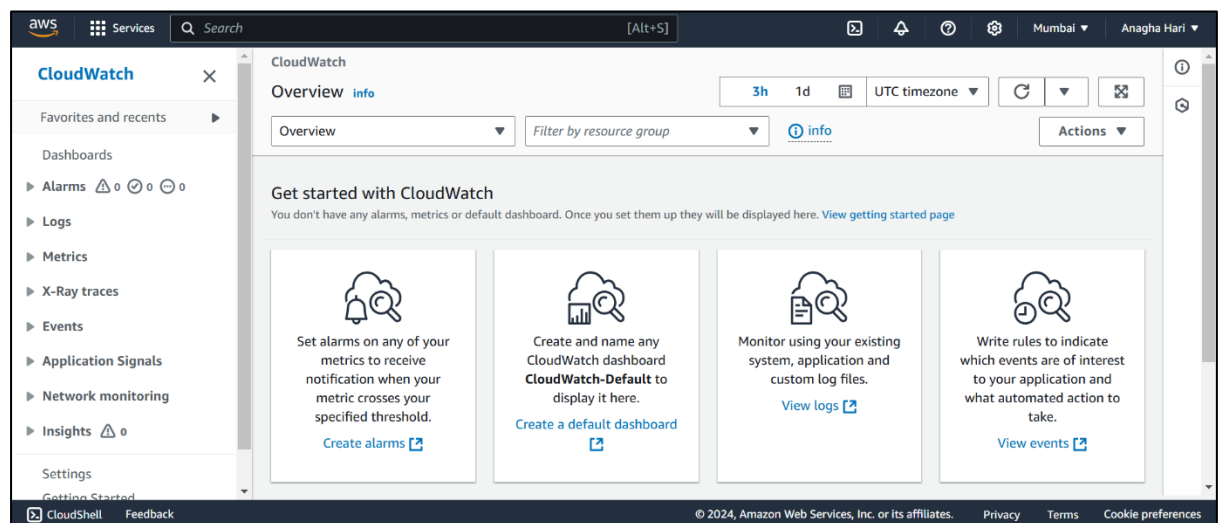
Your subscription's id is:
arn:aws:sns:ap-south-1:739275448450:CPU-Topic:185b2df0-9b03-49a3-bc44-691a72031ef5

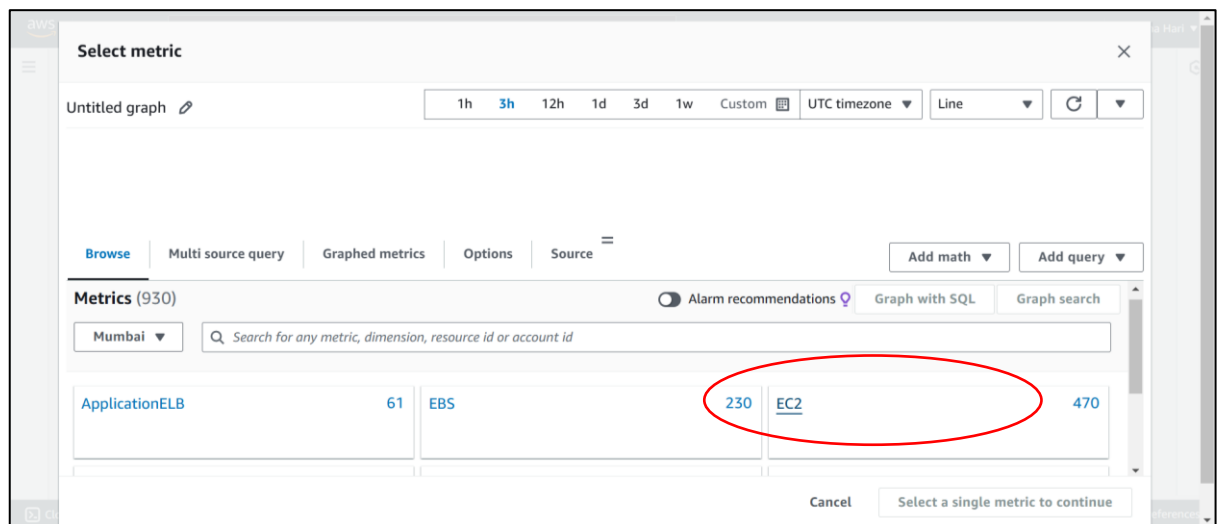
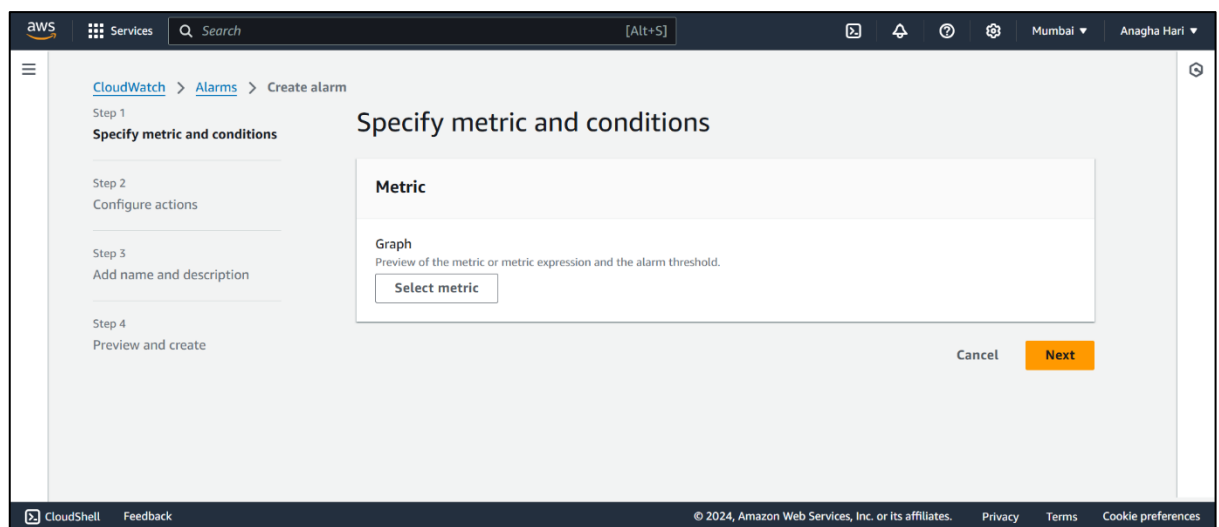
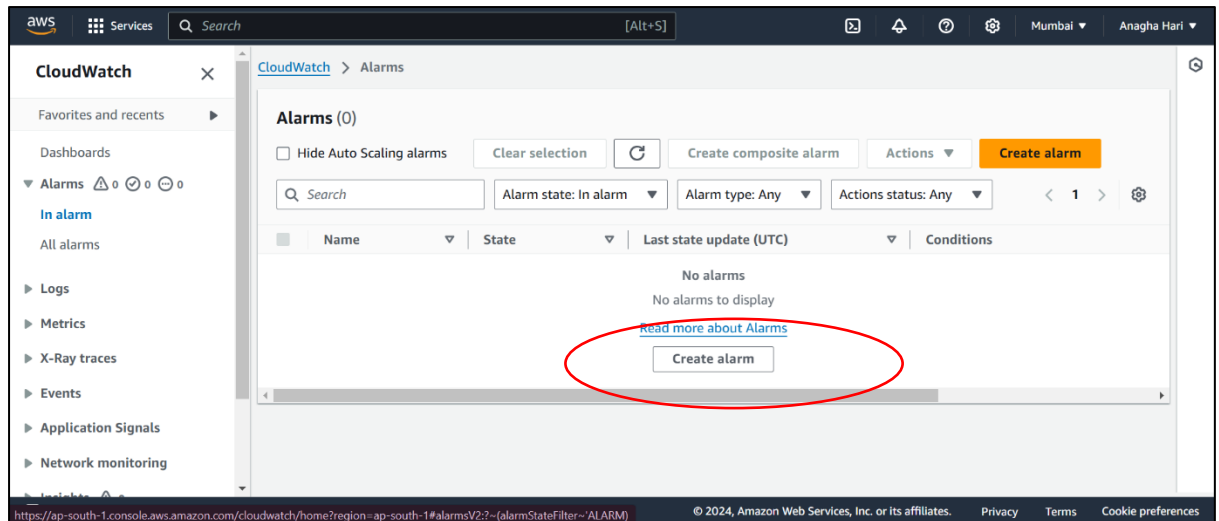
If it was not your intention to subscribe, [click here to unsubscribe](#).



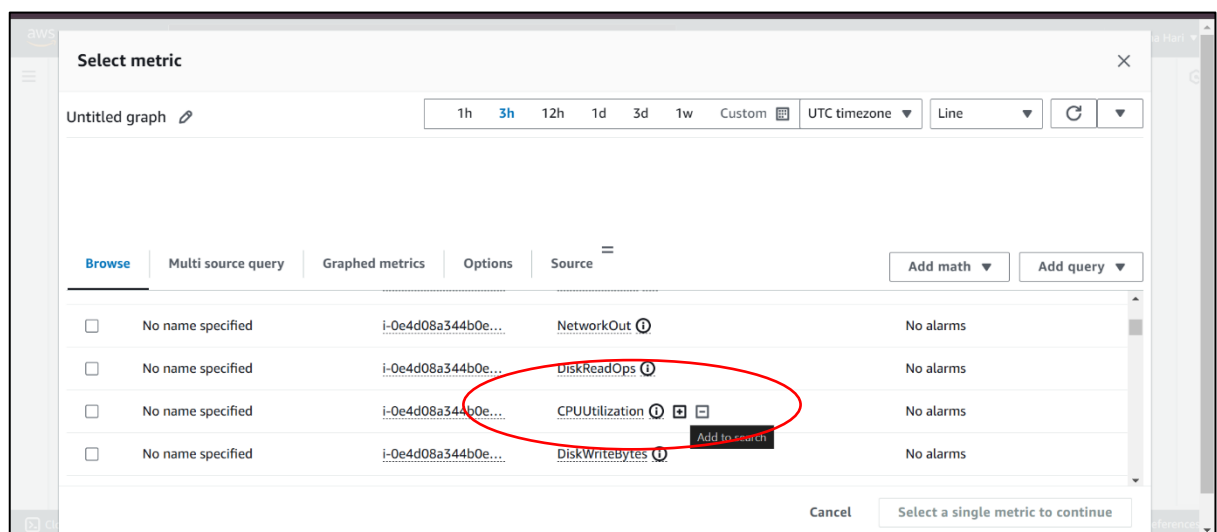
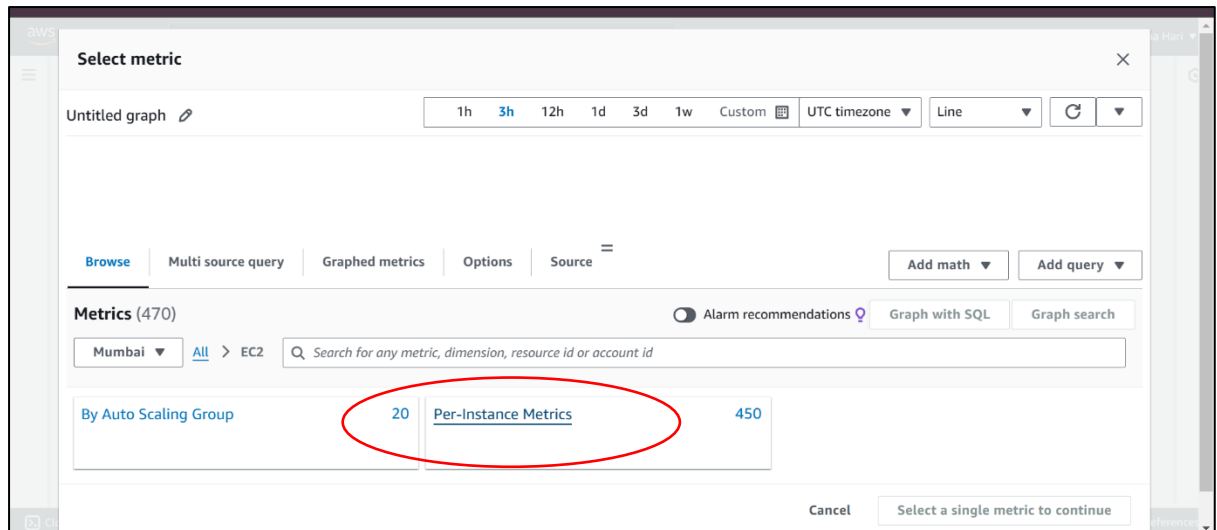
Creating an Alarm

1. In the AWS console search for CloudWatch and open the services.
2. Select “In Alarms”.
3. Click on “Create Alarms”.
4. Specify the metrics and Dimensions.
5. Set the Alarm Thresholds.
6. Configure alarm actions.
7. Create an automation document.
8. Associate the automation document with alarm actions.



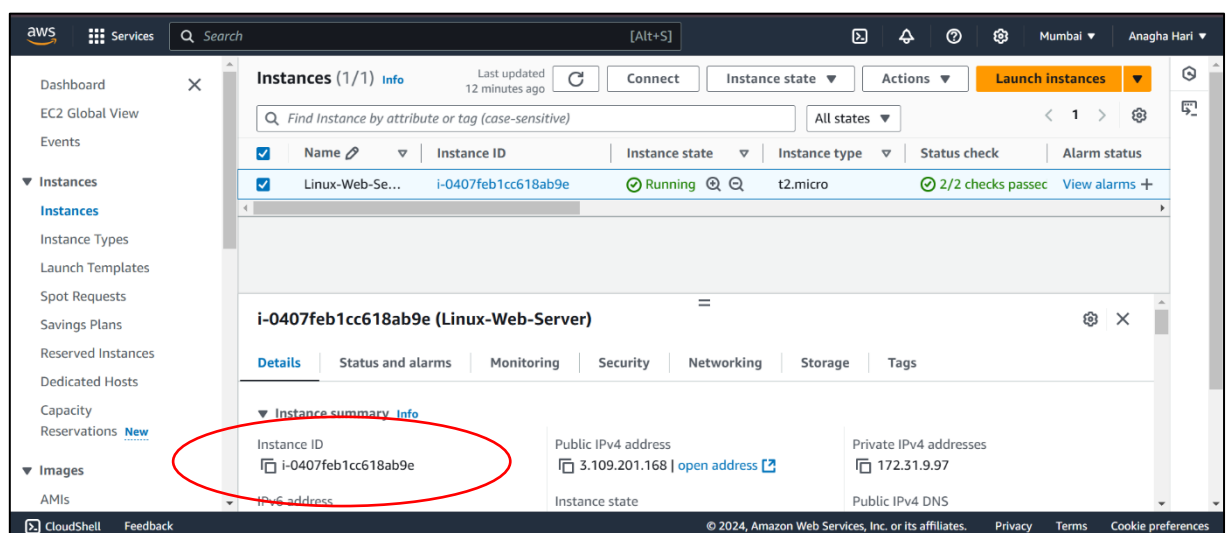


Select EC2 metrics and then the pre-instance metrics.



Select CPUUtilization and add metrics.

Go to the instance and copy the instance ID and paste it on the search of metrics page in cloudwatch.



aws

Select metric

×

Untitled graph

1h3h12h1d3d1wCustomUTC timezoneLine

Browse

Multi source query

Graphed metrics (1)

Options

Source

Add math

Add query

Metrics (1)

Alarm recommendations

Graph with SQL

Graph search

Mumbai

All

>

>

>

Per-Instance Metrics

Search for any metric, dimension, resource id or account id

<

1

>

MetricName="CPUUtilization"

×

i-0407feb1cc618ab9e

×

Instance name 1/1

Instanceid

Metric name

Alarms

Linux-Web-Server

i-0407feb1cc618a...

CPUUtilization

No alarms

Cancel

Select metric

aws

Services

Search

[Alt+S]

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Step 3

Add name and description

Step 4

Preview and create

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

Percent

4.59

3.71

2.84

09:30

10:30

11:30

CPUUtilization

Namespace

AWS/EC2

Metric name

CPUUtilization

Instanceid

i-0407feb1cc618ab9e

Instance name

Linux-Web-Server

Statistic

Average

Period

5 minutes

CloudShell

Feedback

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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.

2

Must be a number

Additional configuration

CloudShell

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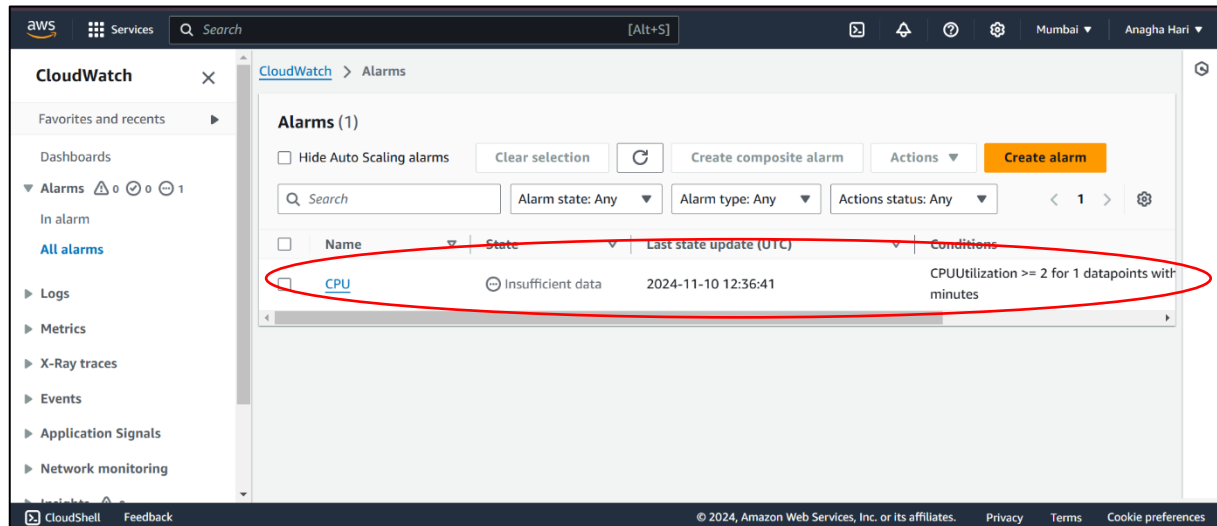
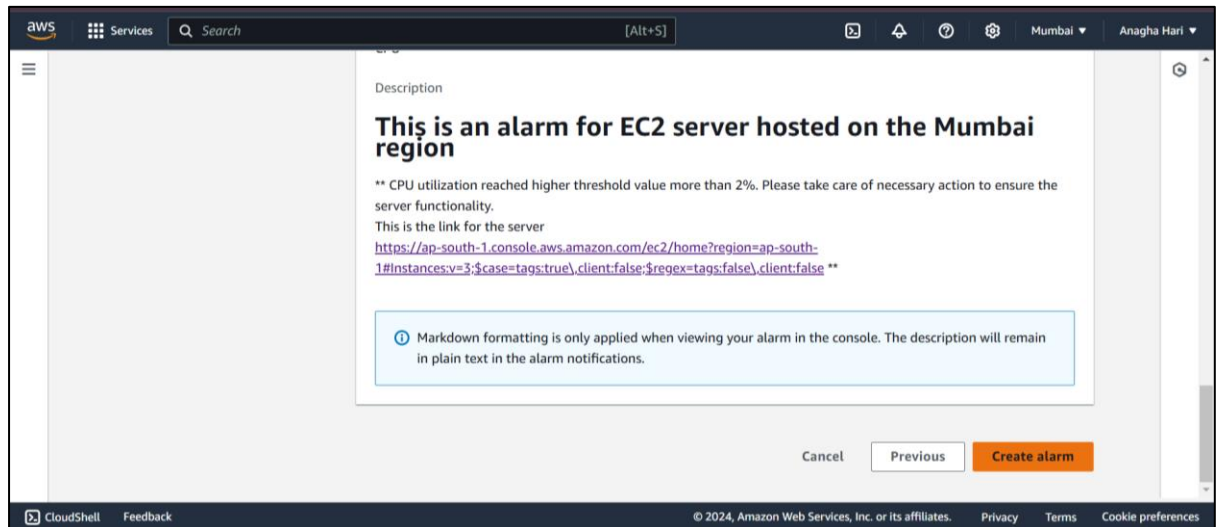
Make necessary settings add stop instance action and message to be displayed as the notification in mail.

This screenshot shows the 'Add name and description' step of the AWS CloudWatch alarm creation process. The left sidebar indicates the current step is Step 3. The main content area is titled 'Alarm state trigger' and includes three radio button options: 'In alarm' (selected), 'OK', and 'Insufficient data'. Below this, the 'Send a notification to the following SNS topic' section shows 'Select an existing SNS topic' as the chosen option. A search box contains 'CPU-Topic'. The 'Email (endpoints)' section lists 'anaghahari12@gmail.com' with a link to 'View in SNS Console'. The footer shows the AWS logo, 'CloudShell', 'Feedback', and copyright information for 2024.

This screenshot shows the 'Take the following action...' step of the AWS CloudWatch alarm creation process. The left sidebar indicates the current step is Step 4. The main content area is titled 'Take the following action...' and includes four radio button options: 'Recover this instance', 'Stop this instance' (selected), 'Terminate this instance', and 'Reboot this instance'. Each option has a brief description and a link to 'Show IAM policy document'. The 'Add EC2 action' button is visible at the bottom. The footer shows the AWS logo, 'CloudShell', 'Feedback', and copyright information for 2024.

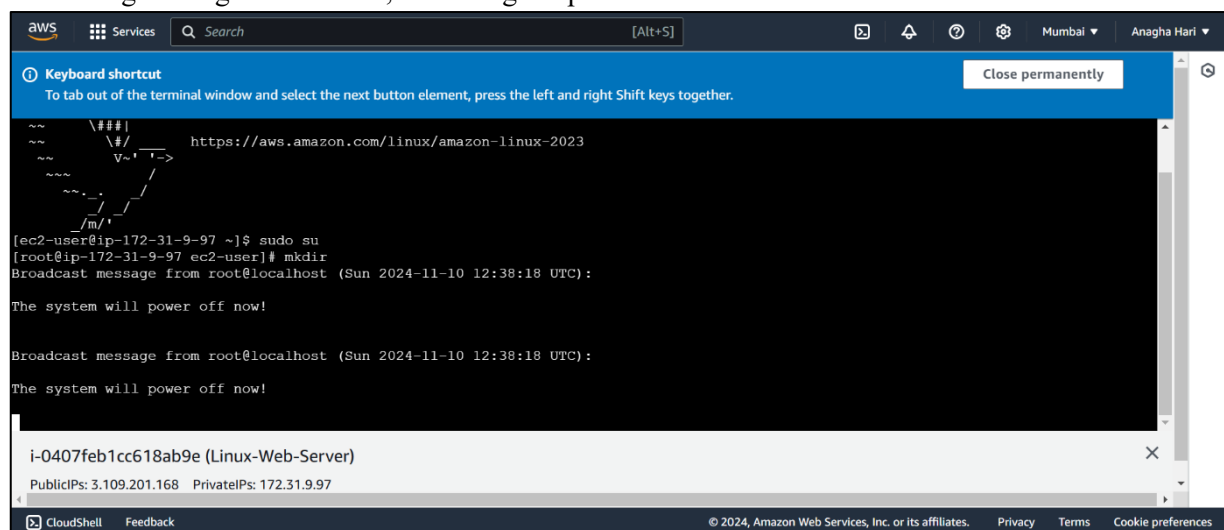
This screenshot shows the 'Name and description' step of the AWS CloudWatch alarm creation process. The left sidebar indicates the current step is Step 3. The main content area is titled 'Name and description' and includes a text input field for 'Alarm name' with the value 'CPU'. Below this is a text area for 'Alarm description - optional' with a link to 'View formatting guidelines'. The text area contains a URL: 'https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#instances:v=3,\$case=tags:true%5C,client:false,\$regex=tags:false%5C,client:false'. A note at the bottom states: 'Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.' The footer shows the AWS logo, 'CloudShell', 'Feedback', and copyright information for 2024.

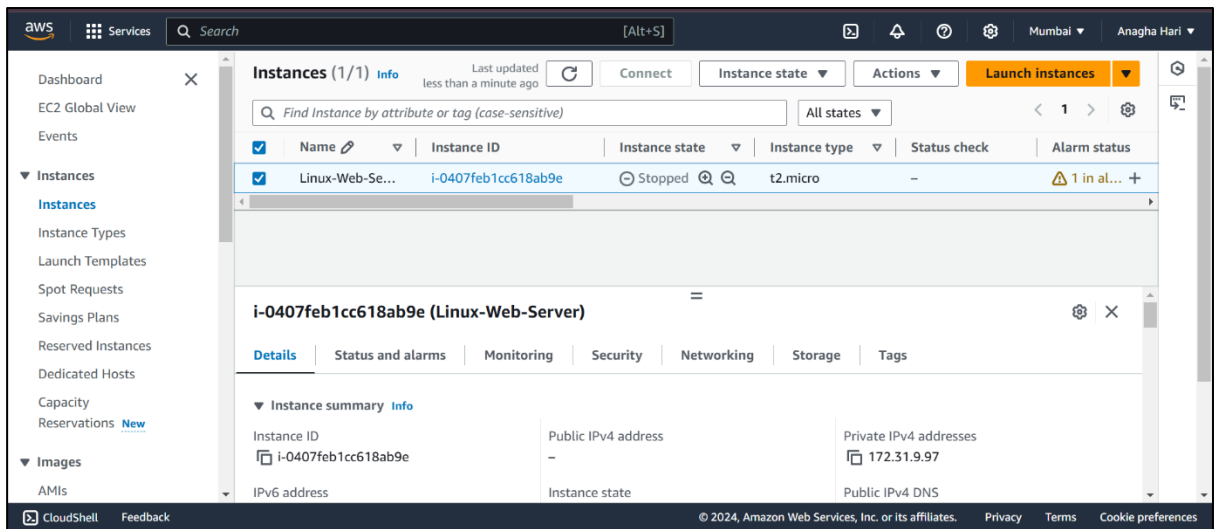
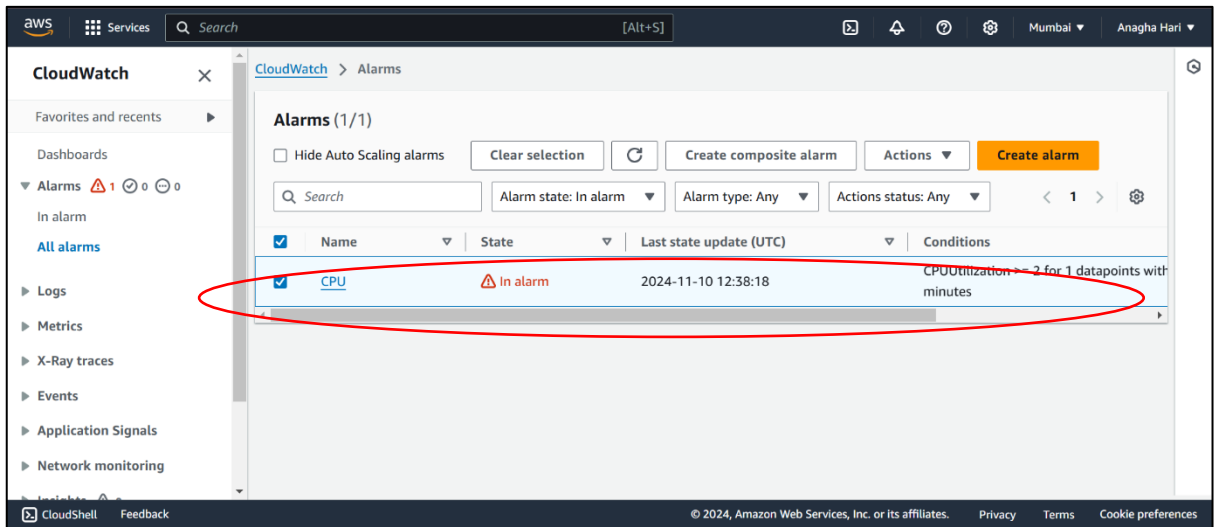
Review settings and click on create alarm. The alarm created can be seen in the all alarms section.



Go to the instance and connect it to the server.

A warning message can be seen, indicating the production of an alarm.





The instance has been stopped as it exceed CPUUtilization value.