Module 3:

CloudWatch Alarms Assignment

Problem Statement:

You work for XYZ Corporation. To maintain the security of the AWS account and the resources you have been asked to implement a solution that can help easily recognize and monitor the different users. Also, you will be monitoring the machines created by these users for any errors or misconfigurations.

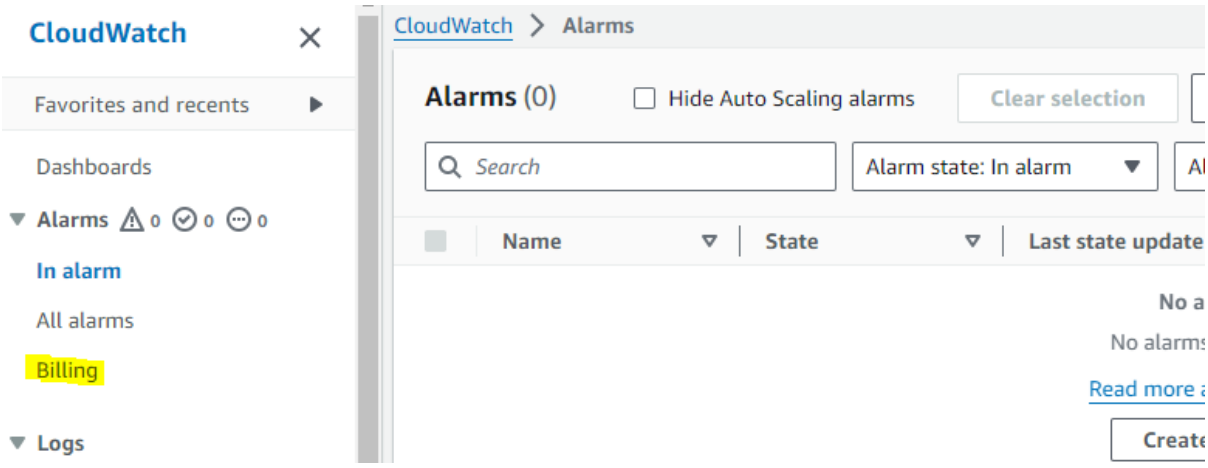
Tasks to be Performed:

1. Create a CloudWatch billing alarm which goes off when the estimated charges go above $500.

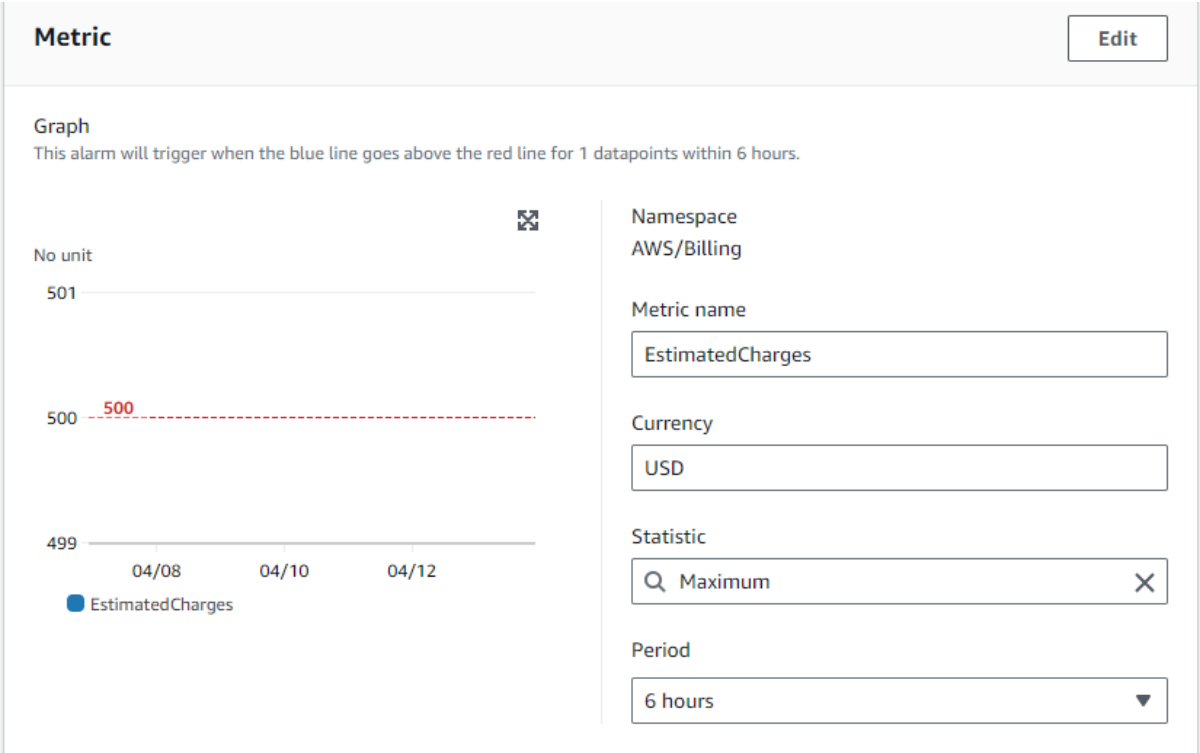
2. Create a CloudWatch alarm which goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%. Also add an SNS topic so that it notifies the person when the threshold is crossed.

Solutions:

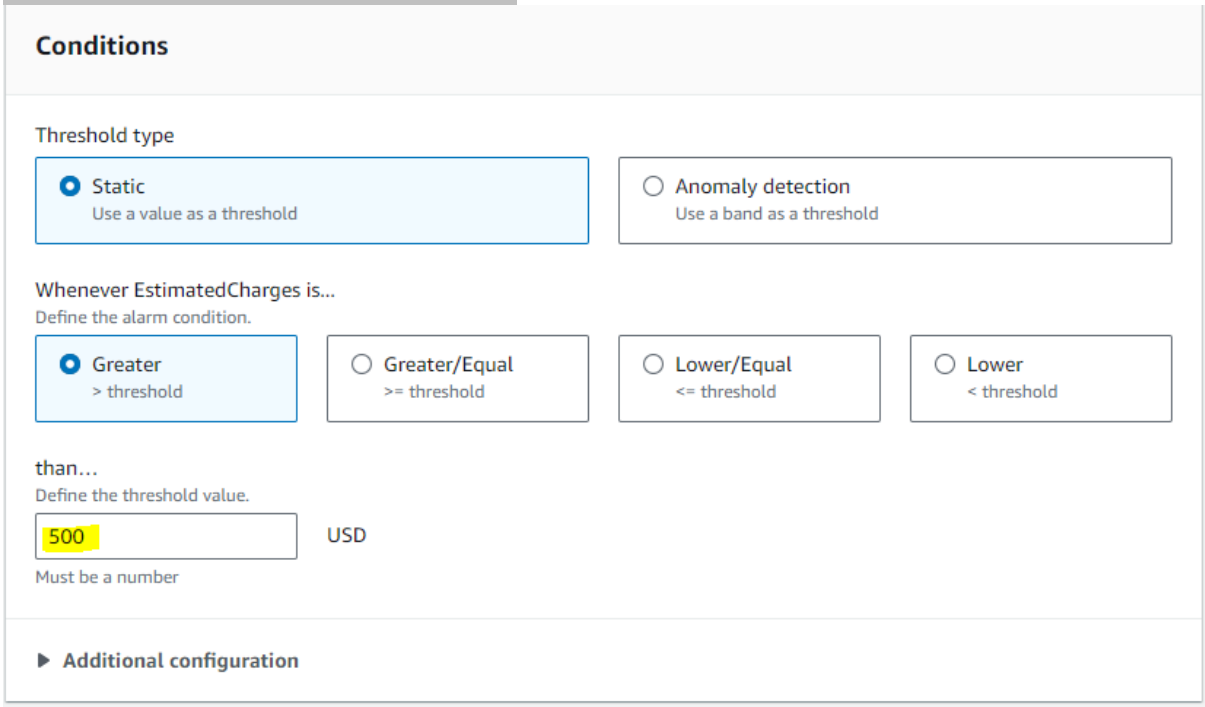
Go to Cloudwatch > Alarms > Billing > Create Metric



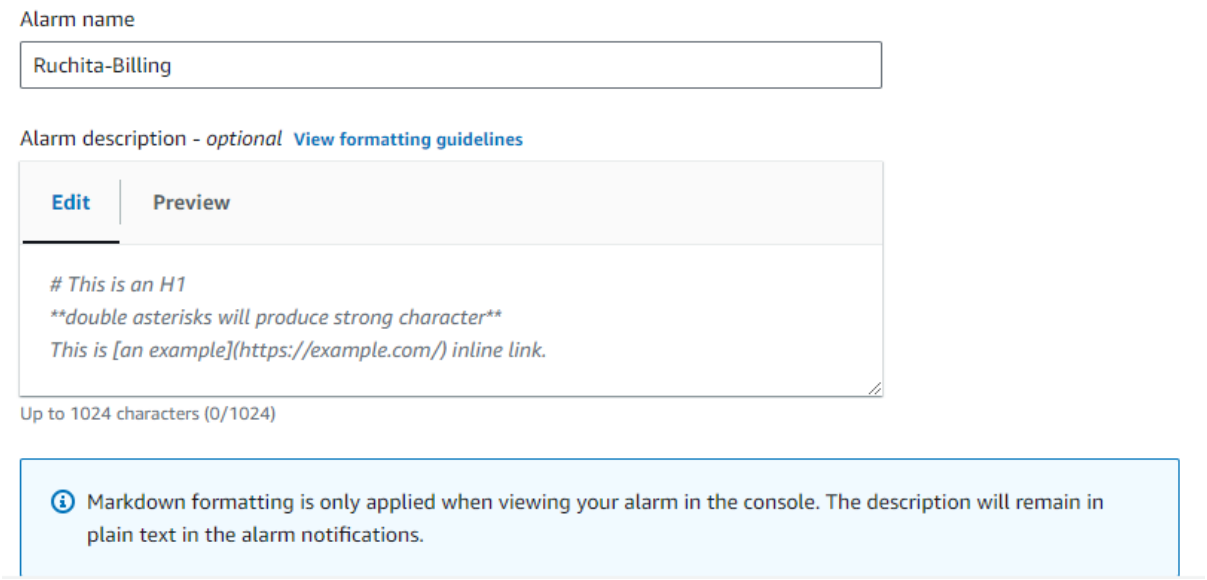
Specify metric and conditions



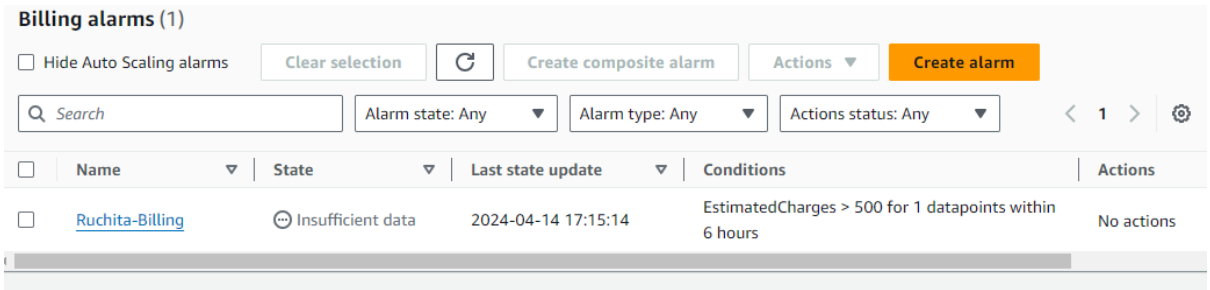
Select conditions as per questions



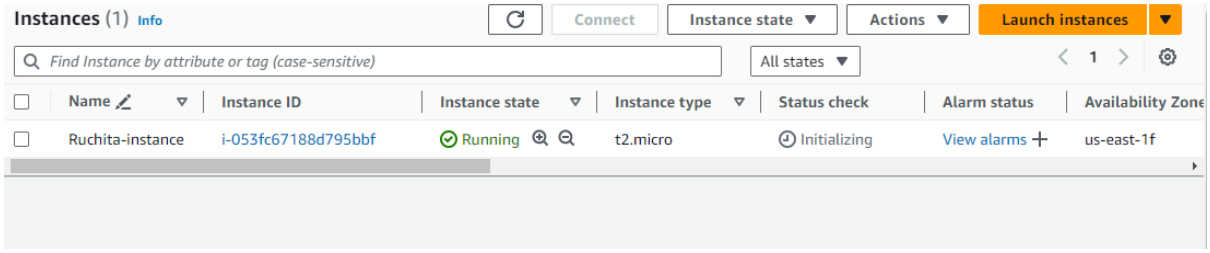
Give Alarm Name and then click on create alarm



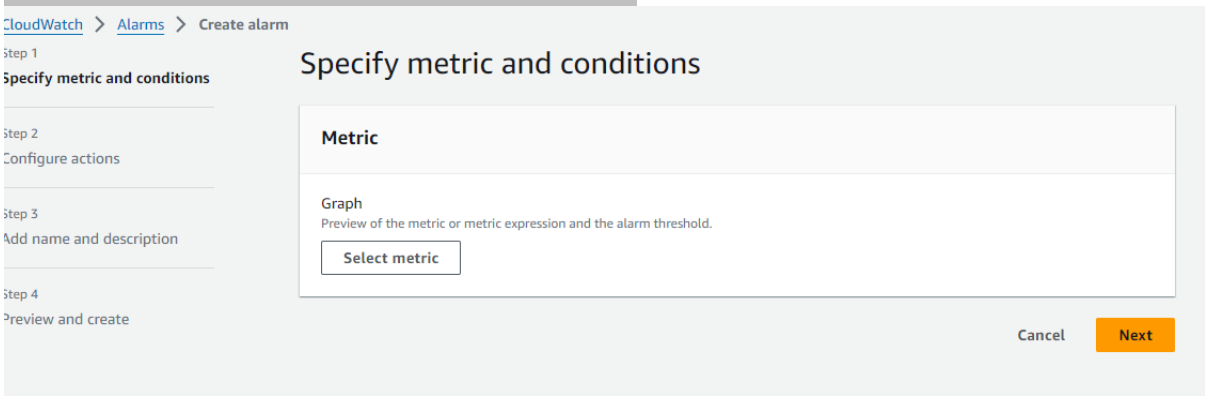
Created the Billing alarm which goes off when the estimated charges go above $500.



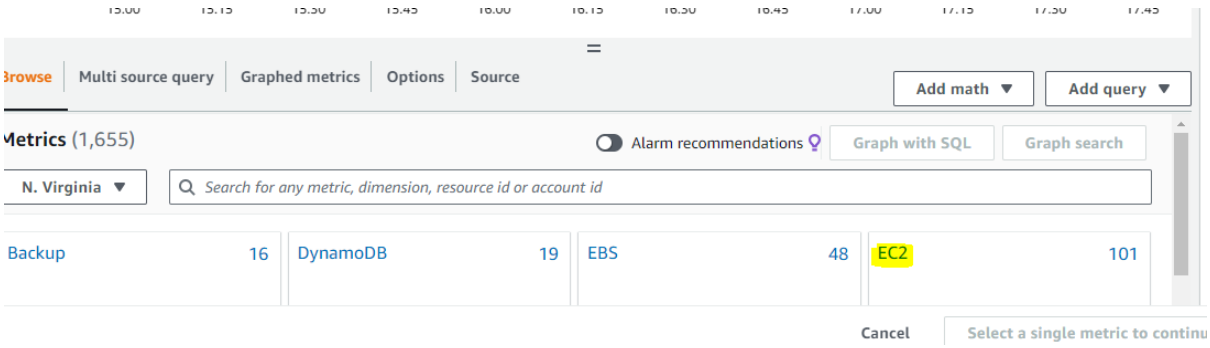
To Create CloudWatch alarm, Create an EC2 instance



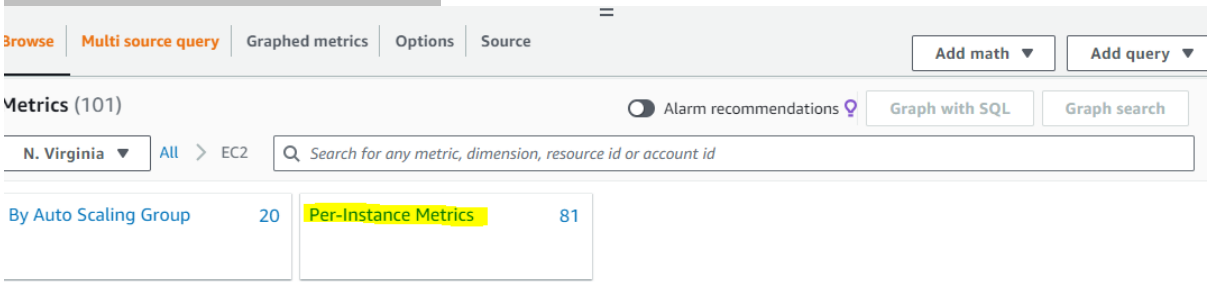
Go to CloudWatch > Alarm > create Alarm



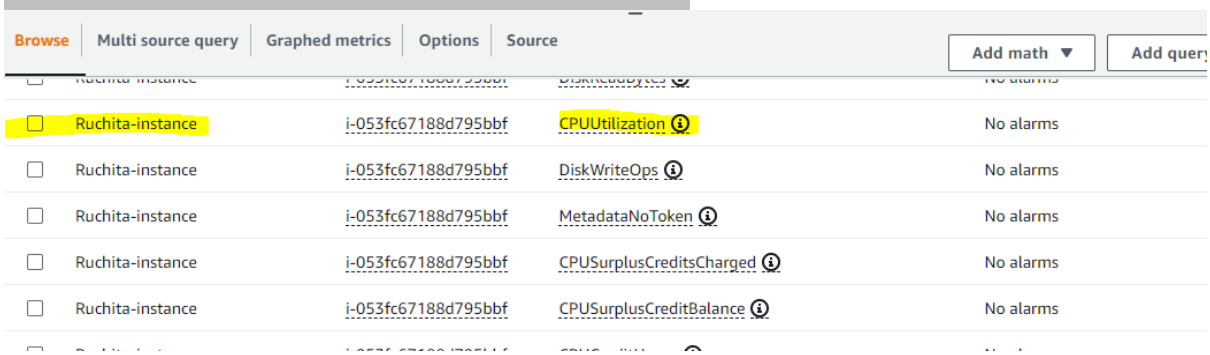
Select EC2



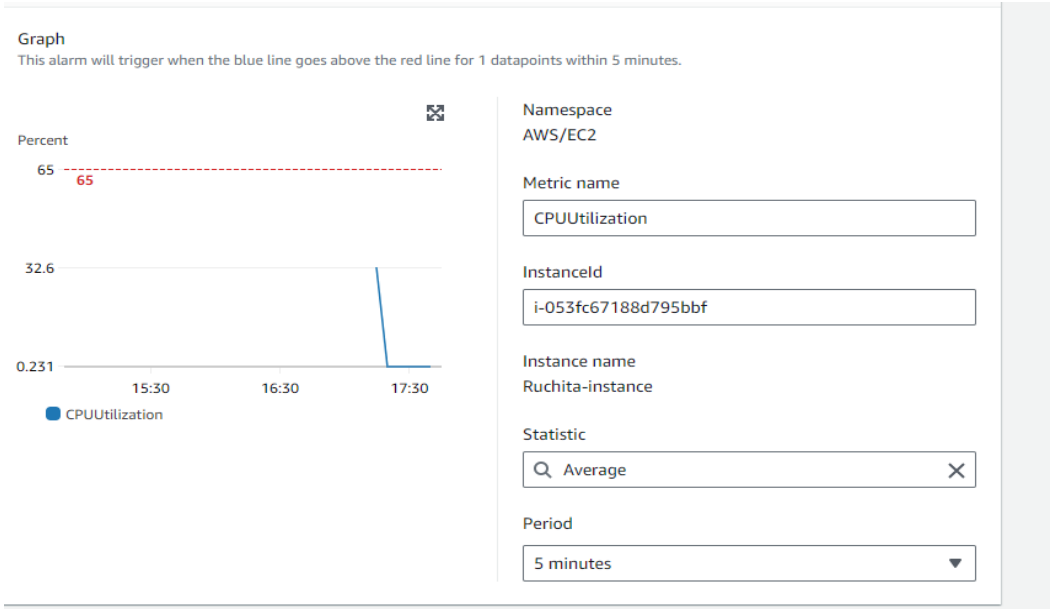
Click on Per-instance Metrics



Select CPUUtilization for the created instance

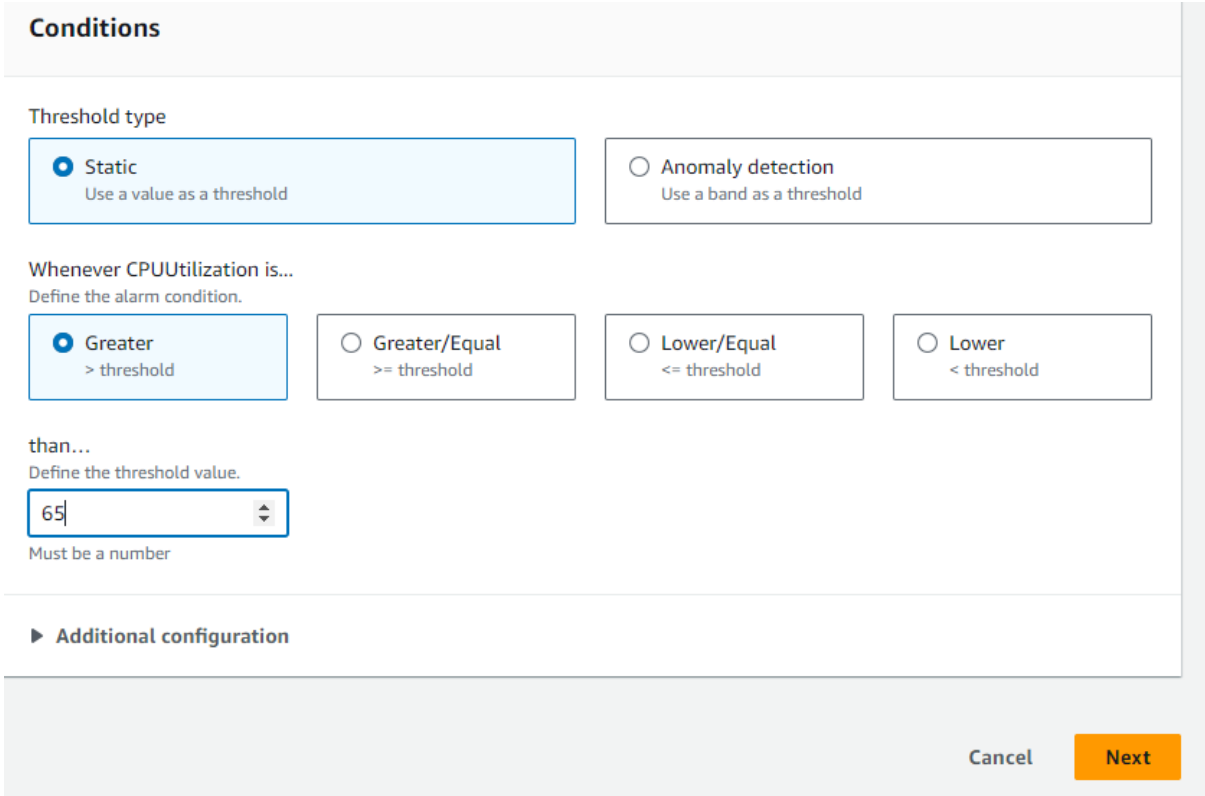


Select the Metrics details



Select the threshold Value 65 and Click Next

For which the CloudWatch alarm goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%.



Add SNS topic so that it notifies the person when the threshold is crossed

Notification

Alarm state trigger
Define the alarm state that will trigger this action.

Remove

- In alarm — The metric or expression is outside of the defined threshold.
- OK — The metric or expression is within the defined threshold.
- Insufficient data — The alarm has just started or not enough data is available.

Send a notification to the following SNS topic
Define the SNS (Simple Notification Service) topic that will receive the notification.

- Select an existing SNS topic
- Create new topic
- Use topic ARN to notify other accounts

Send a notification to...

65-SNS

Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.

Email (endpoints)
ruchitharuthu123@gmail.com - View in SNS Console

Add notification

Give the Alarm name and Click Next

Name and description

Alarm name

Ruchi-Alarm

Alarm description - *optional* View formatting guidelines

Edit | Preview

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

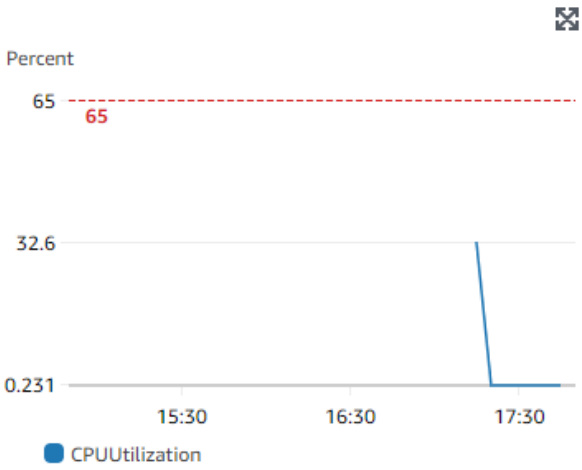
Up to 1024 characters (0/1024)

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

Preview and Create

Graph

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



Namespace
AWS/EC2

Metric name
CPUUtilization

InstanceId
i-053fc67188d795bbf

Instance name
Ruchita-instance

Statistic
Average

Period
5 minutes

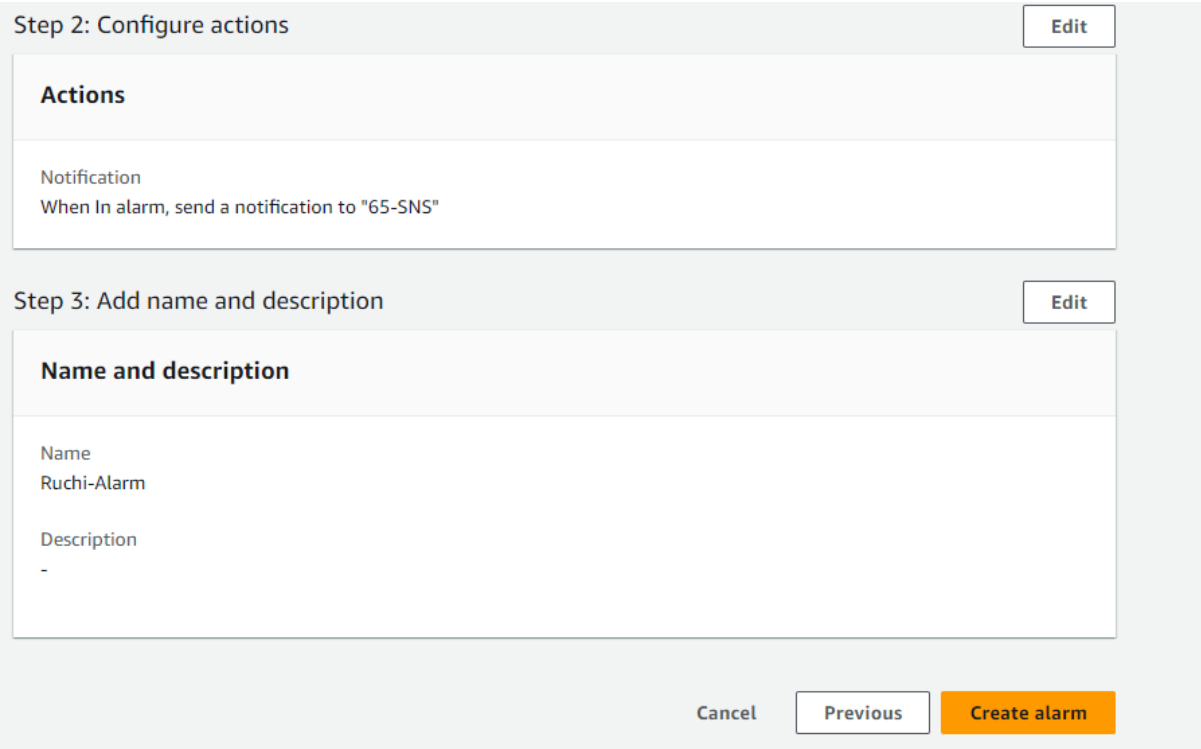
Conditions

Threshold type
Static

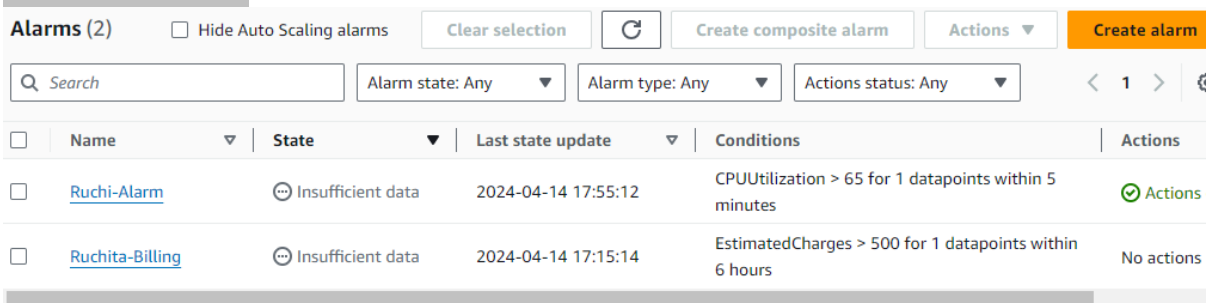
Whenever **CPUUtilization** is
Greater (>)

than...
65

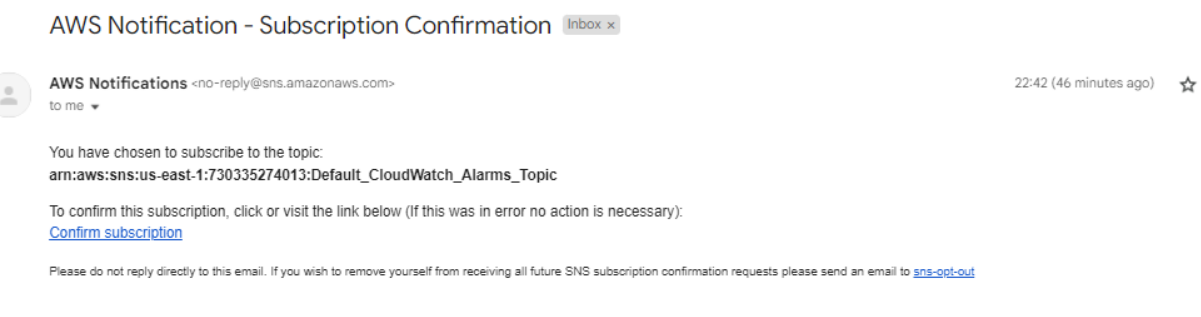
▶ **Additional configuration**



Alarm is created



You will receive the AWS Notification for the Subscription Confirmation



Click on confirm subscription

Simple Notification Service

Subscription confirmed!

You have successfully subscribed.

Your subscription's id is:
arn:aws:sns:us-east-1:730335274013:Default_CloudWatch_Alarms_Topic:784e4999-93f4-46a5-ad8f-0e1724e9974a

If it was not your intention to subscribe, click here to unsubscribe.

==========