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Subject- Cloud Computing

Colledge– DY. Patil International University

Task(2)- CLOUD MONITORING AND ALERT

Set up monitoring for a cloud- based application using aws cloudwatch,

deliverable: configured alerts and a dashboard showcasing metrics

- **Objective-**

  To set up and demonstrate real-time monitoring and alerting for a cloud-based application using AWS CloudWatch, by configuring metrics, alarms, and dashboards to proactively track system health, performance, and receive notifications for critical issues like high CPU usage.

- **Key Goals:**

1. Monitor EC2 instance performance (like CPU utilization, network traffic).

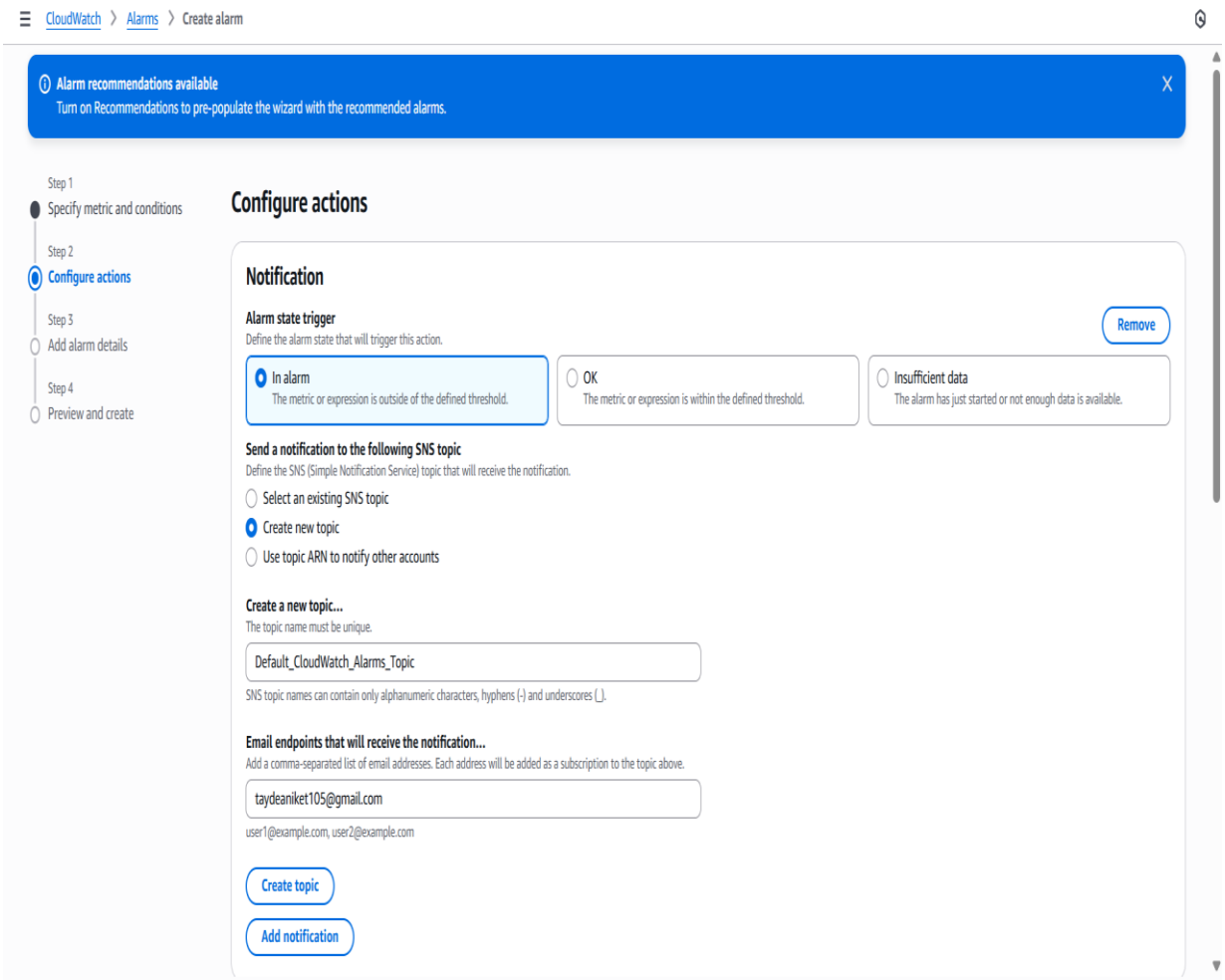
2. Create alarms that trigger when thresholds (e.g., CPU > 80%) are breached.

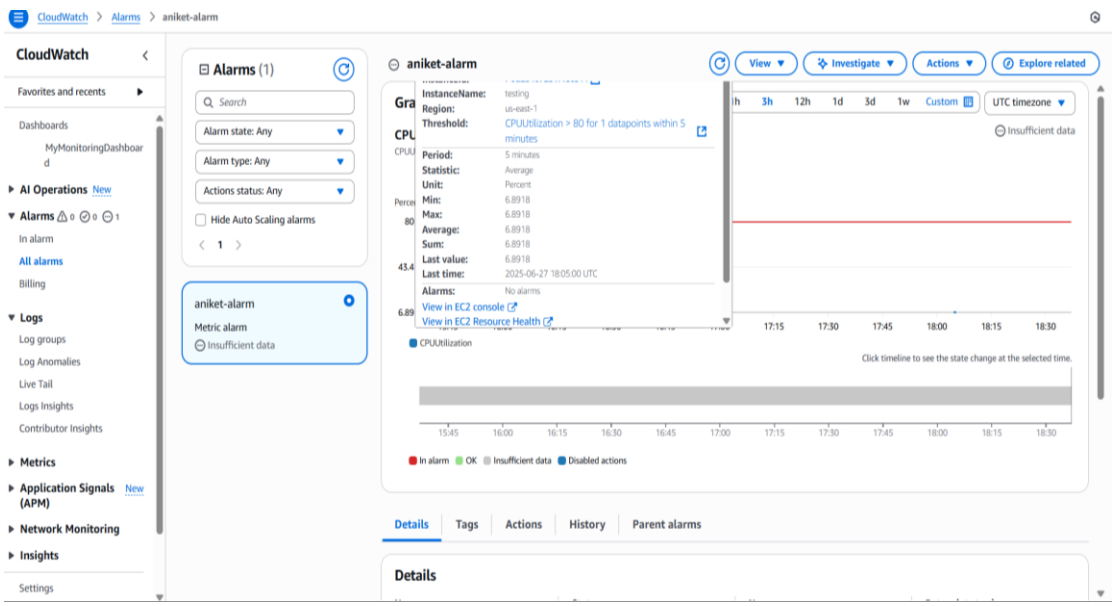
3. Send alerts via SNS (e.g., email) when something goes wrong.

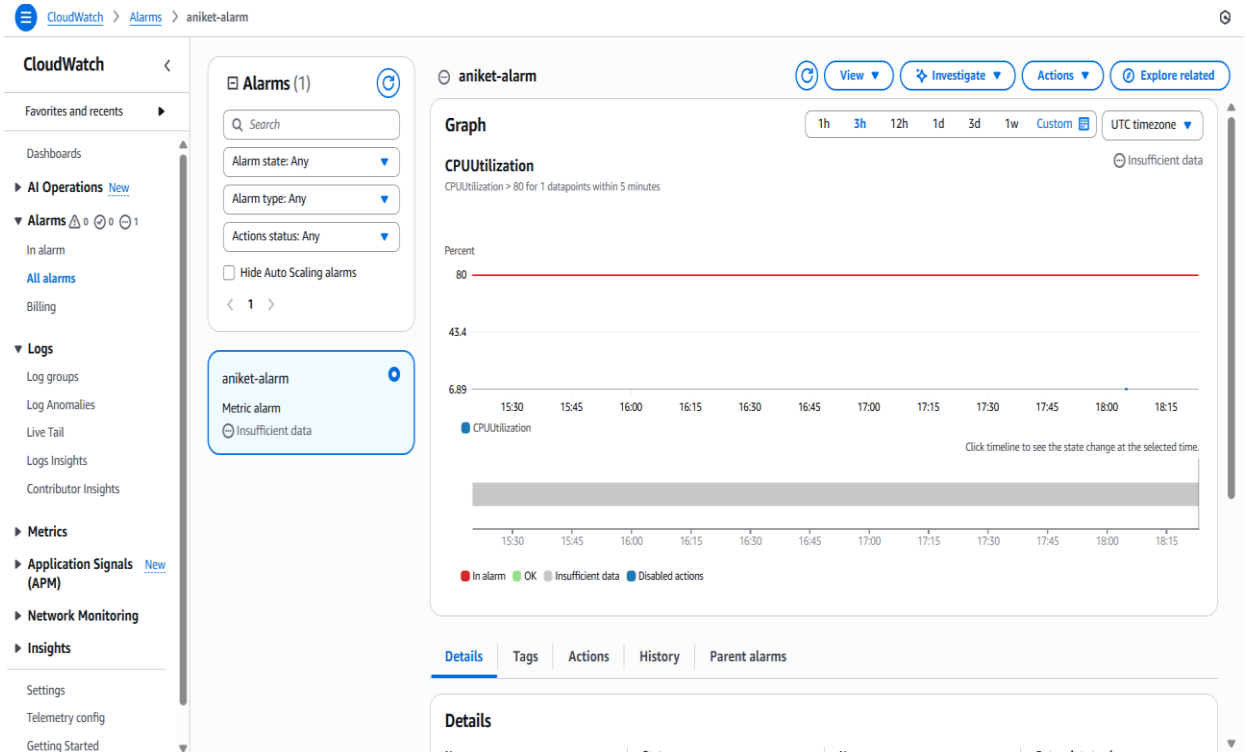
4. Visualize data on a custom CloudWatch dashboard.

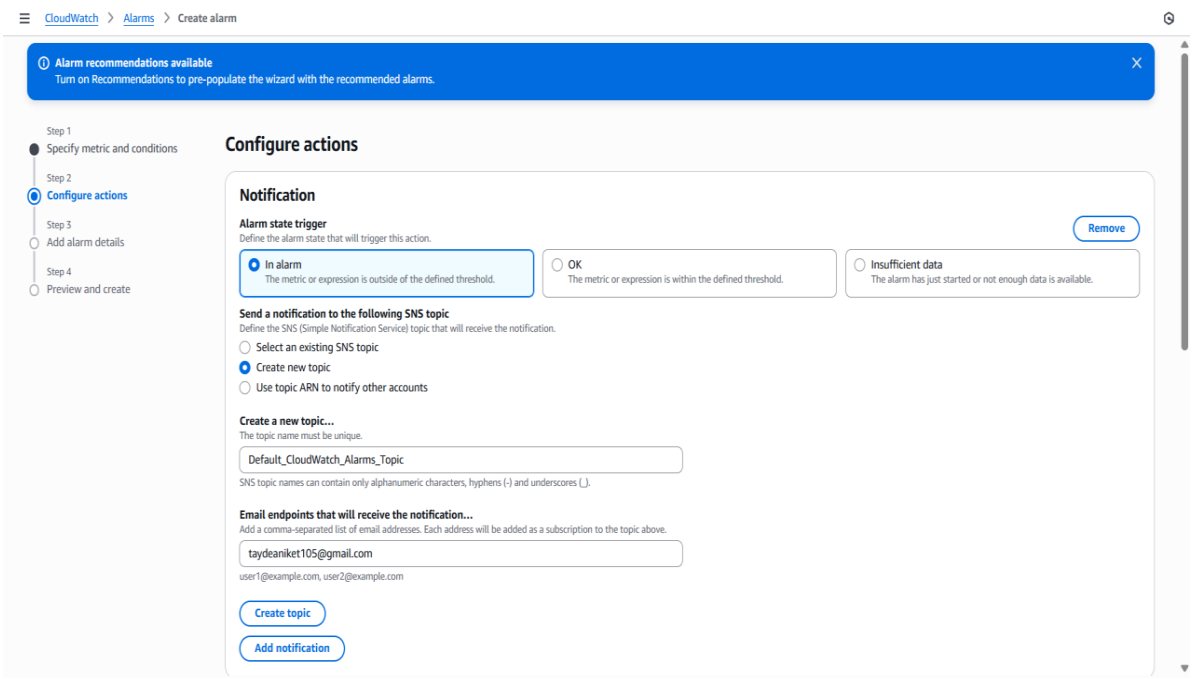
5. Test and validate the monitoring setup by creating artificial load.

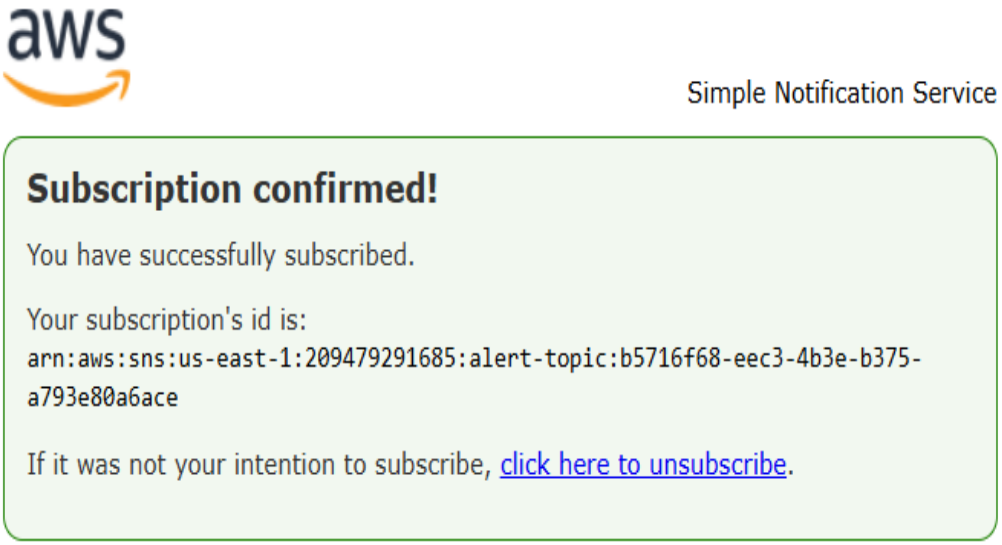
- **Screenshots After Task Submission-**




CloudWatch > Alarms > aniket-alarm
CloudWatch
Favorites and recents
Dashboards
MyMonitoringDashboard
AI Operations New
Alarms 0 0 1
In alarm
All alarms
Billing
Logs
Log groups
Log Anomalies
Live Tail
Logs Insights
Contributor Insights
Metrics
Application Signals (APM) New
Network Monitoring
Insights
Settings
Alarms (1)
Search
Alarm state: Any
Alarm type: Any
Actions status: Any
Hide Auto Scaling alarms
aniket-alarm
Metric alarm
Insufficient data
aniket-alarm
View
Investigate
Actions
Explore related
InstanceName: testing
Region: us-east-1
Threshold: CPUUtilization > 80 for 1 datapoints within 5 minutes
Period: 5 minutes
Statistic: Average
Unit: Percent
Min: 6.8918
Max: 6.8918
Average: 6.8918
Sum: 6.8918
Last value: 6.8918
Last time: 2025-06-27 18:05:00 UTC
Alarms: No alarms
View in EC2 console
View in EC2 Resource Health
1h 3h 12h 1d 3d 1w Custom
UTC timezone
Insufficient data
CPUUtilization
Click timeline to see the state change at the selected time.
In alarm OK Insufficient data Disabled actions
Details Tags Actions History Parent alarms
Details


CloudWatch > Alarms > aniket-alarm
CloudWatch
Favorites and recents
Dashboards
AI Operations New
Alarms 0 0 1
In alarm
All alarms
Billing
Logs
Log groups
Log Anomalies
Live Tail
Logs Insights
Contributor Insights
Metrics
Application Signals (APM) New
Network Monitoring
Insights
Settings
Telemetry config
Getting Started
Alarms (1)
Search
Alarm state: Any
Alarm type: Any
Actions status: Any
Hide Auto Scaling alarms
aniket-alarm
Metric alarm
Insufficient data
aniket-alarm
View
Investigate
Actions
Explore related
Graph
1h 3h 12h 1d 3d 1w Custom
UTC timezone
CPUUtilization
CPUUtilization > 80 for 1 datapoints within 5 minutes
Insufficient data
Percent
80
43.4
6.89
15:30 15:45 16:00 16:15 16:30 16:45 17:00 17:15 17:30 17:45 18:00 18:15
CPUUtilization
Click timeline to see the state change at the selected time.
In alarm OK Insufficient data Disabled actions
Details Tags Actions History Parent alarms
Details


CloudWatch
Alarms
Create alarm
Alarm recommendations available
Turn on Recommendations to pre-populate the wizard with the recommended alarms.
Step 1
Specify metric and conditions
Step 2
Configure actions
Step 3
Add alarm details
Step 4
Preview and create
Configure actions
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
Create a new topic...
The topic name must be unique.
Default_CloudWatch_Alarms_Topic
SNS topic names can contain only alphanumeric characters, hyphens (-) and underscores (_).
Email endpoints that will receive the notification...
Add a comma-separated list of email addresses. Each address will be added as a subscription to the topic above.
taydeaniket105@gmail.com
user1@example.com, user2@example.com
Create topic
Add notification


aws
Simple Notification Service
Subscription confirmed!
You have successfully subscribed.
Your subscription's id is:
arn:aws:sns:us-east-1:209479291685:alert-topic:b5716f68-eec3-4b3e-b375-a793e80a6ace
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