

Assignment: EC2 Monitoring - CloudWatch Dashboard

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Problem Statement

You work for XYZ Corporation. To maintain the security of the AWS account and its resources, you have been asked to implement a solution that helps easily recognize and monitor different users. Additionally, you are required to monitor the machines (EC2 instances) created by these users for any performance issues, errors, or misconfigurations.

Objective

Create an AWS CloudWatch Dashboard to monitor the CPU utilization and network metrics (Network In and Network Out) of a particular EC2 instance.

Tasks to be Performed

Step 1 — Open CloudWatch Dashboard

1. In the AWS Management Console, navigate to CloudWatch.
2. In the left-hand menu, click Dashboards → Create dashboard.
3. Enter a name for your dashboard, for example: EC2-Monitoring-Dashboard.
4. Click Create dashboard.

Step 2 — Add CPU Utilization Widget

1. Choose Line widget and click Next.
2. In the Metrics section, go to Browse → EC2 → Per-Instance Metrics.
3. Select your instance ID and check the metric CPUUtilization.
4. Click Create widget. This displays the CPU usage graph over time.

Add widget

Data sources types

- Cloudwatch
- Other content types
- Create data sources

Widget Configuration

Data type

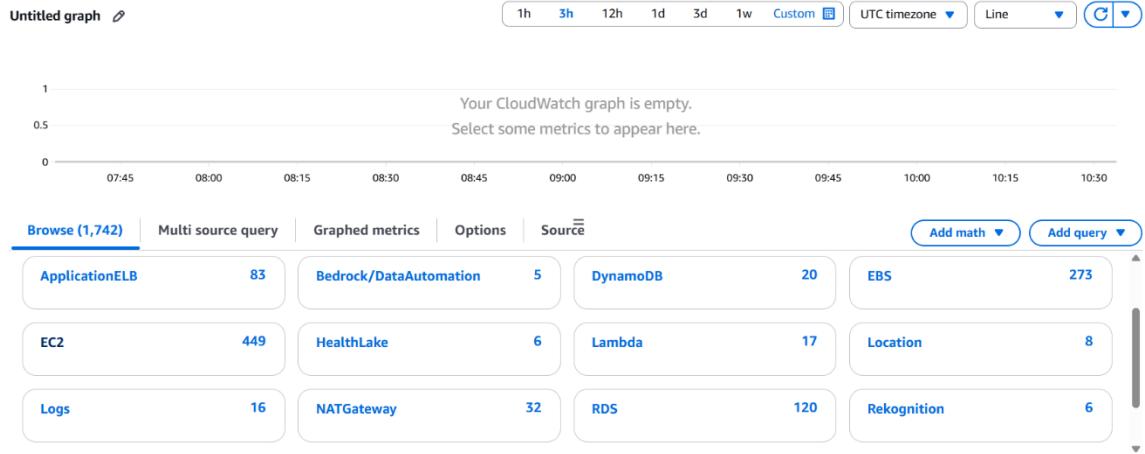
- Metrics** (selected)
- Logs
- Alarms

Widget type

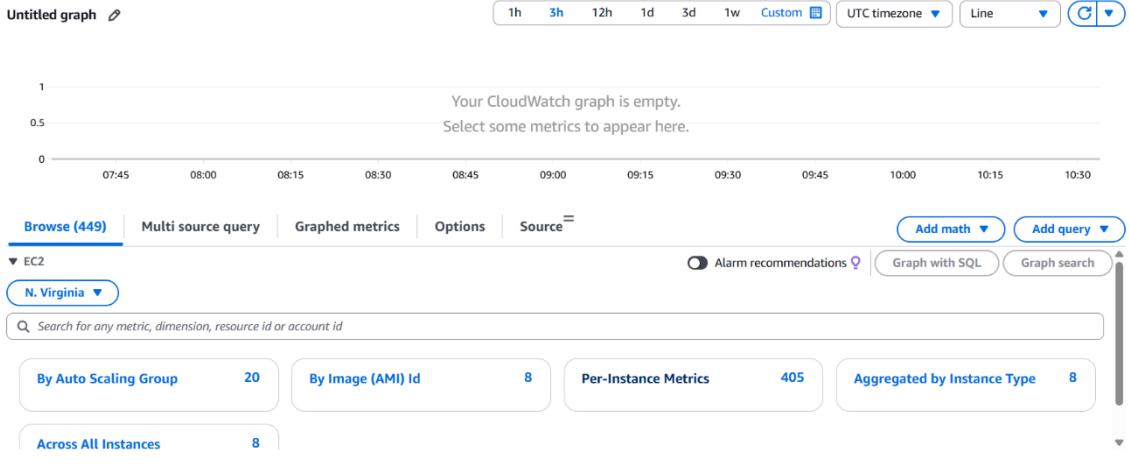
- Line** Compare metrics over time 
- Data table** Compare metrics values over time in a table 
- Number** Instantly see the latest value for a metric 
- Gauge** See the latest value of a metric within a range 
- Stacked area** Compare the total over time 
- Bar** Compare categories of data 

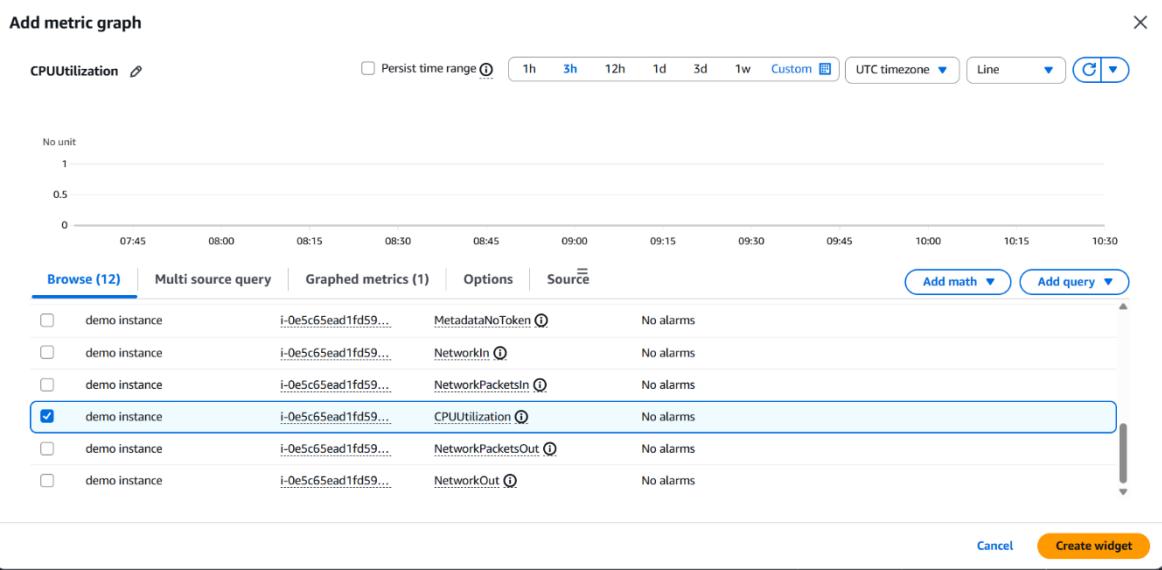
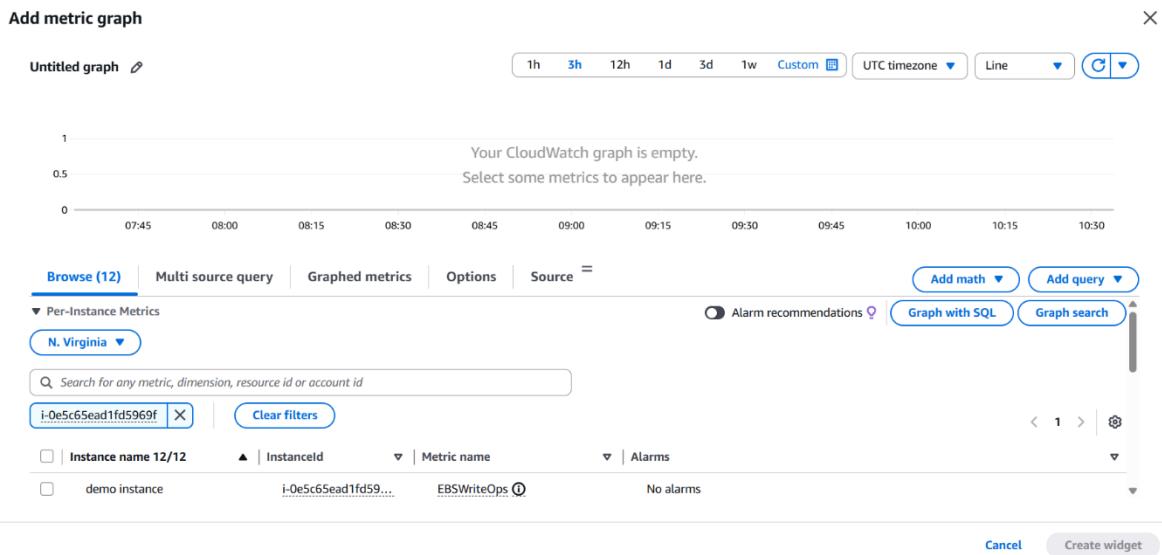
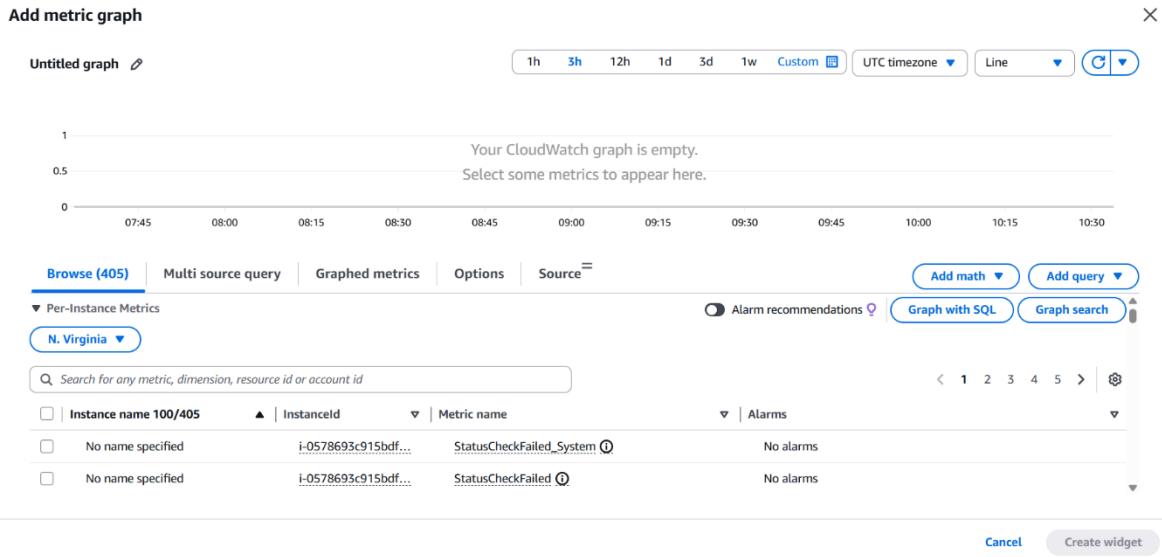
Cancel **Next**

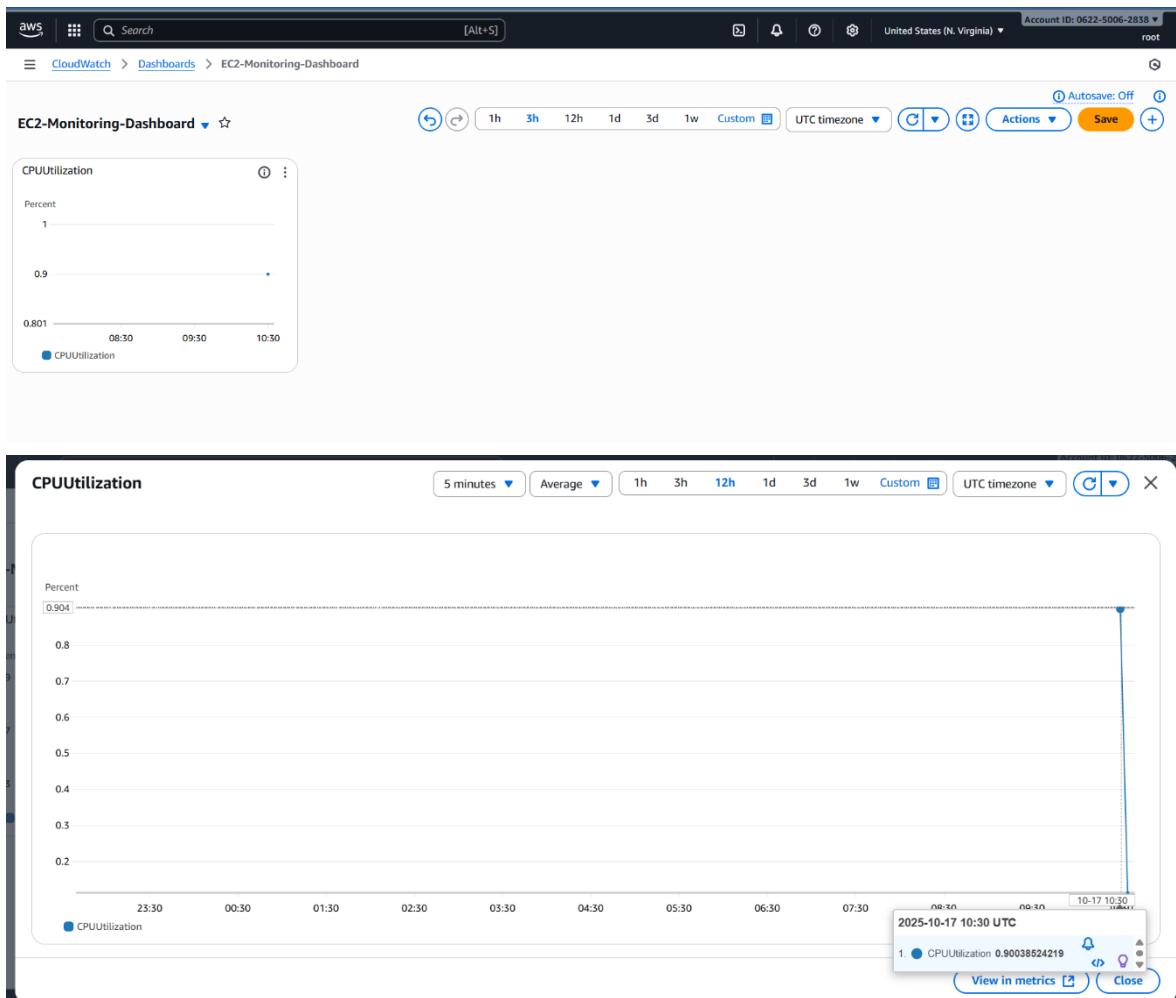
Add metric graph



Add metric graph



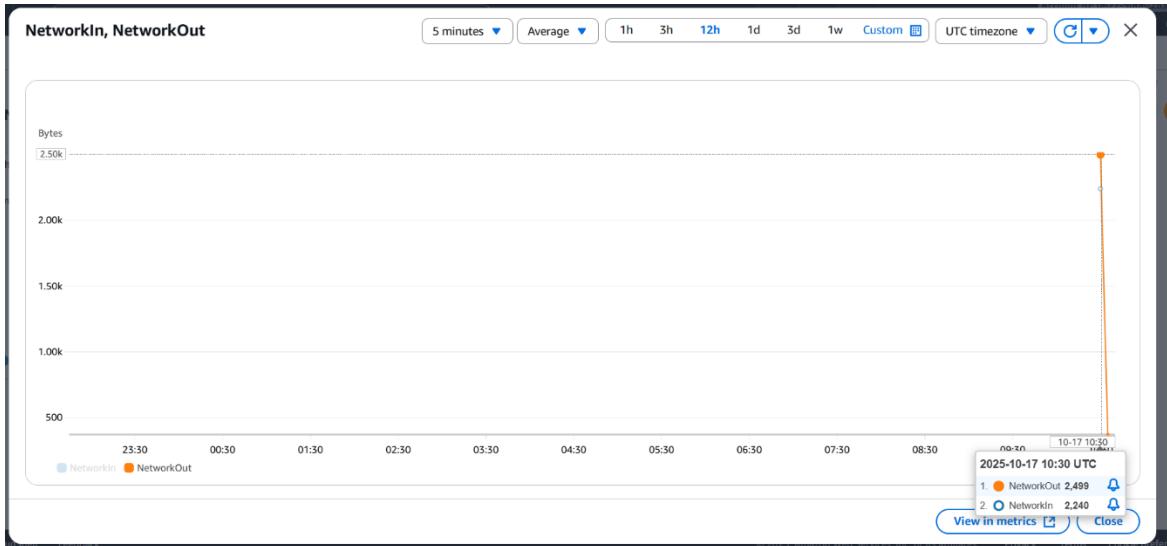
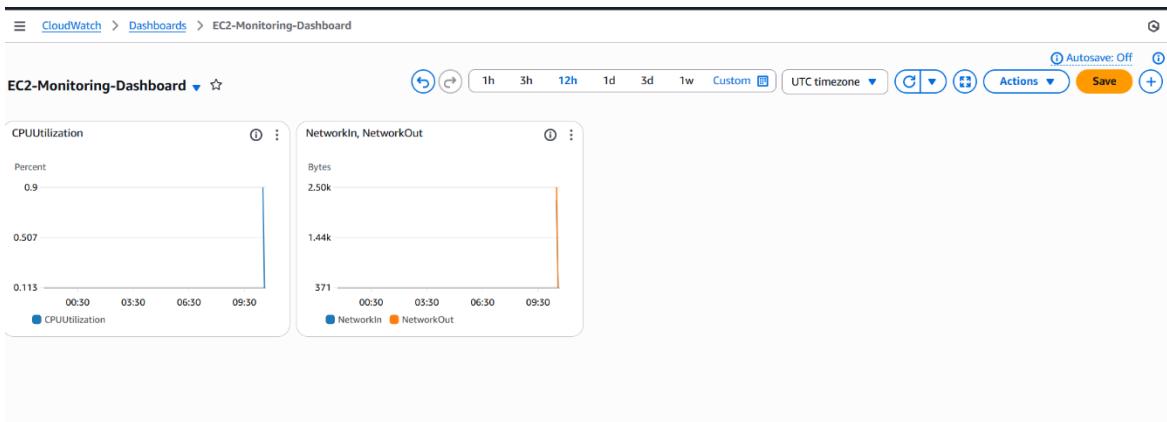
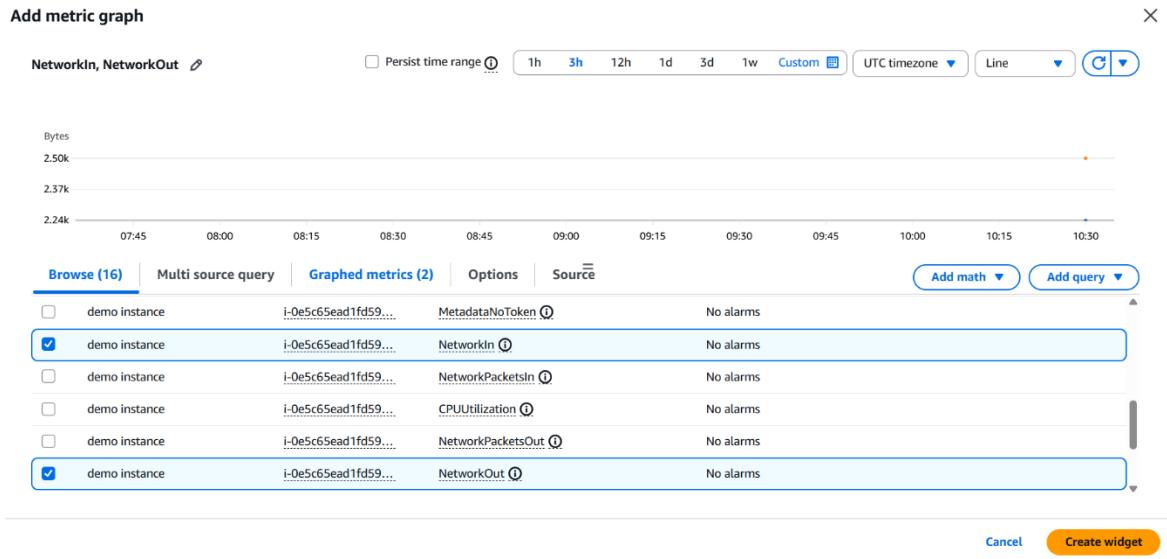




Step 3 — Add Networking Widgets (Network In & Network Out)

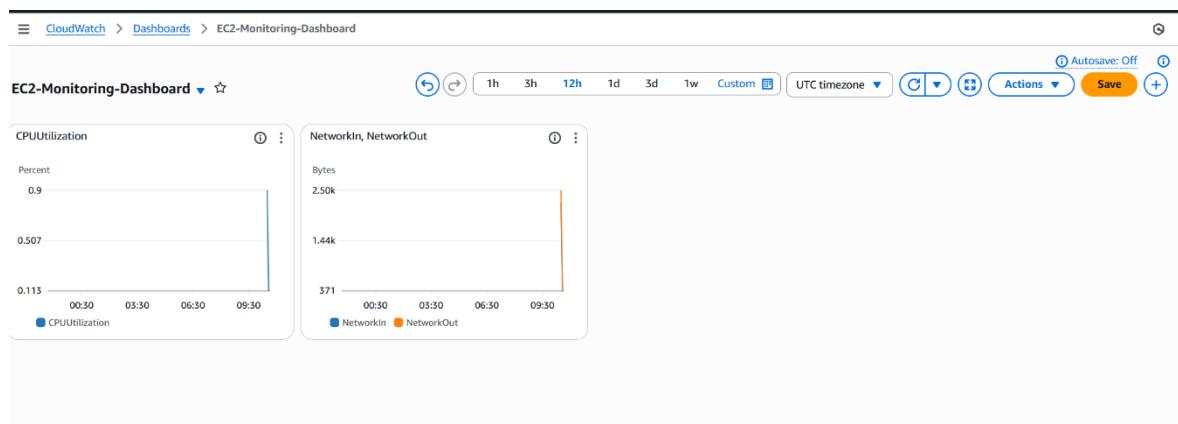
1. In the same dashboard, click Add widget → Line widget.
2. Go to Metrics → EC2 → Per-Instance Metrics.
3. Select your instance ID & and check the NetworkIn and NetworkOut metrics.
4. Click Create widget.

Now your dashboard shows CPU utilization and network traffic for that instance.



Step 4 — Adjust Time Range and Layout

1. On the top-right of the dashboard, choose a time range (e.g., Last 1 hour or Last 24 hours).
2. Rearrange widgets to make the view clear.
3. Click Save dashboard to preserve your layout.



Result

Successfully created a CloudWatch Dashboard named EC2-Monitoring- Dashboard. The dashboard monitors key metrics — CPU utilization, NetworkIn, and NetworkOut — for a specific EC2 instance. This enables real-time performance tracking and helps detect any potential performance issues or misconfigurations efficiently.