Steps for AWS CloudWatch

1. Log in to the AWS Management Console

- Go to the AWS Management Console.
- Log in with your credentials.

2. Launch an EC2 Instance (if you don't have one)

- 1. Go to the EC2 service.
- 2. Click Launch Instance.
- 3. Choose an Amazon Machine Image (AMI) (e.g., Amazon Linux 2).
- 4. Select an instance type (e.g., t2.micro).
- 5. Configure instance details (leave defaults if unsure).
- 6. Add storage (default is usually sufficient).
- 7. Add tags (optional).
- 8. Configure security groups to allow SSH (port 22) and HTTP (port 80) traffic.
- 9. Launch the instance and download the key pair.

3. Enable CloudWatch Monitoring for the EC2 Instance

- 1. Go to the **EC2 Dashboard**.
- 2. Select your instance.
- 3. Click Actions > Monitor and troubleshoot > Manage CloudWatch monitoring.
- 4. Enable **Detailed Monitoring** (optional but recommended for more granular metrics).
- 5. Click Save.

4. Create a CloudWatch Dashboard

- 1. Go to the **CloudWatch** service.
- 2. In the left sidebar, click **Dashboards**.
- 3. Click Create dashboard.
- 4. Enter a dashboard name (e.g., Codtech-Monitoring-Dashboard).
- 5. Click Create dashboard.
- 6. Add widgets to the dashboard:

- Click Add widget.
- o Choose a widget type (e.g., Line, Stacked Area, Number).
- Select the metric you want to monitor (e.g., CPUUtilization, NetworkIn, NetworkOut).
- o Configure the widget and click Create widget.
- 7. Repeat to add more widgets for other metrics (e.g., Memory Usage, Disk I/O).

5. Create CloudWatch Alarms

- 1. In the CloudWatch console, go to Alarms in the left sidebar.
- 2. Click Create alarm.
- 3. Click Select metric.
- 4. Choose a metric (e.g., EC2 > Per-Instance Metrics > CPUUtilization).
- 5. Set the conditions for the alarm:
 - Threshold type: Static.
 - o Define the threshold (e.g., CPUUtilization > 80%).
 - o Set the alarm to trigger when the threshold is breached for 1 consecutive period.
- 6. Configure actions:
 - o Send a notification to an SNS topic (create an SNS topic if you don't have one).
 - o Add an email address to the SNS topic to receive notifications.
- 7. Enter an alarm name (e.g., High-CPU-Utilization-Alarm).
- 8. Click Create alarm.

6. Verify Alarms and Dashboard

- 1. Go to the **CloudWatch Dashboard** to view the metrics in real-time.
- 2. Simulate high CPU usage on your EC2 instance (e.g., run a stress test).
- 3. Check if the alarm triggers and you receive an email notification.

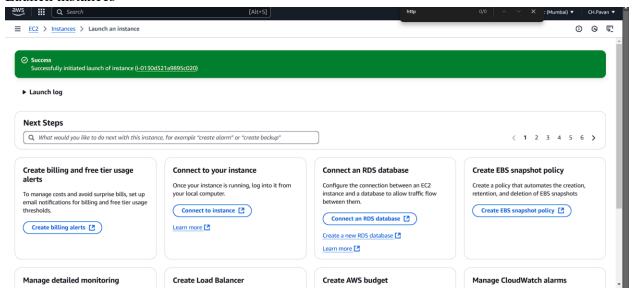
Deliverables

1. A CloudWatch dashboard showcasing metrics (e.g., CPU, Memory, Network).

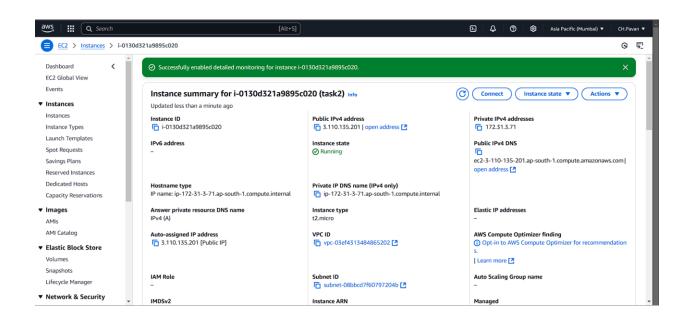
- 2. Configured CloudWatch alarms (e.g., for high CPU usage).
- 3. Screenshots or documentation of the dashboard and alarms.

Screen shots

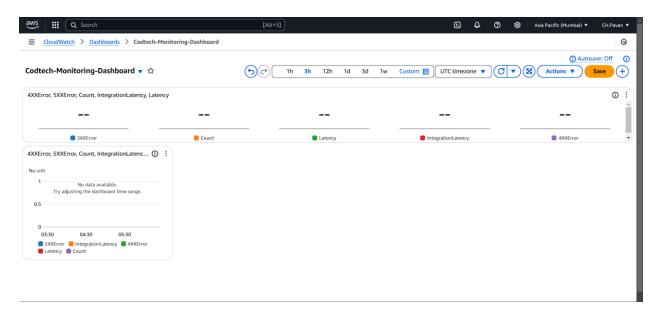
Launch instances



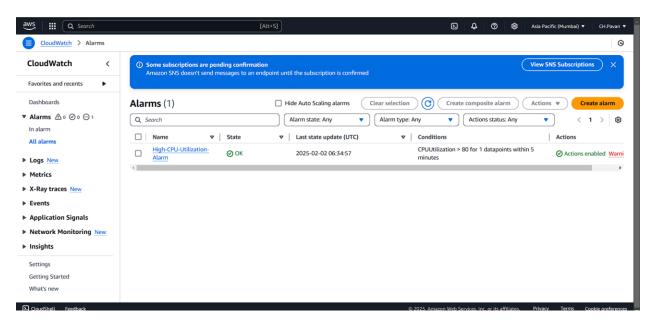
Enabled Detailed Monitoring

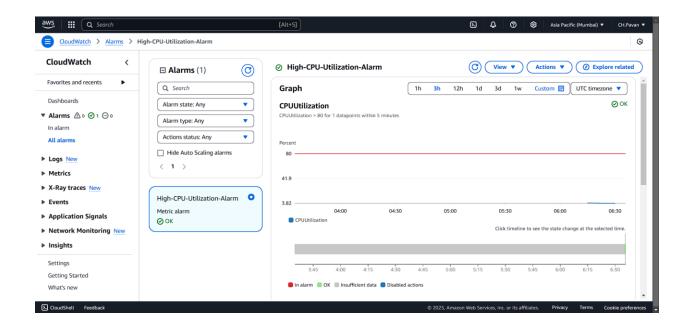


Created Cloud watch Dashboard

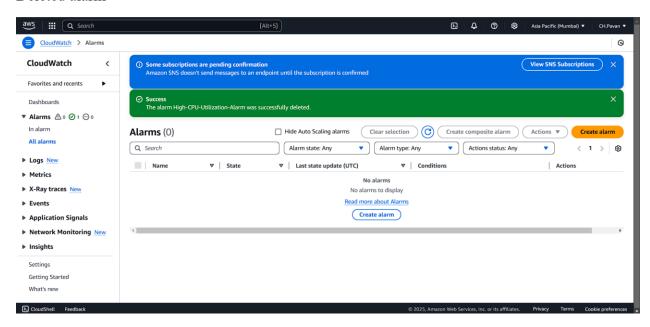


Created an alarm





Deleted alarm



Deleted instance

