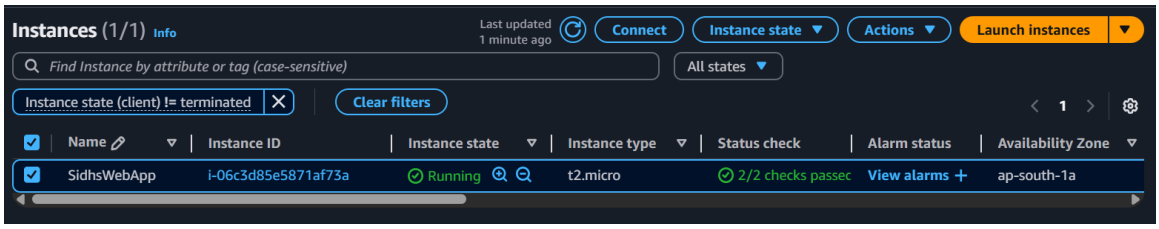
AWS Cloud Monitoring & Alerting Project Documentation

📌 Project Overview

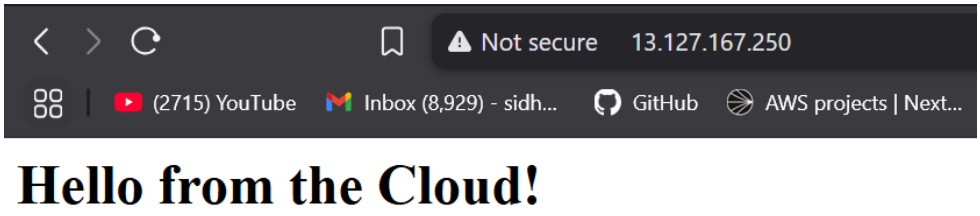
This project demonstrates the setup of a cloud-based web application hosted on an AWS EC2 instance, with monitoring and alerting configured using Amazon CloudWatch.

1. ☑ EC2 Web Server Setup

📷 Screenshot 1: EC2 Instance Running



📷 Screenshot 2: Web Page Live



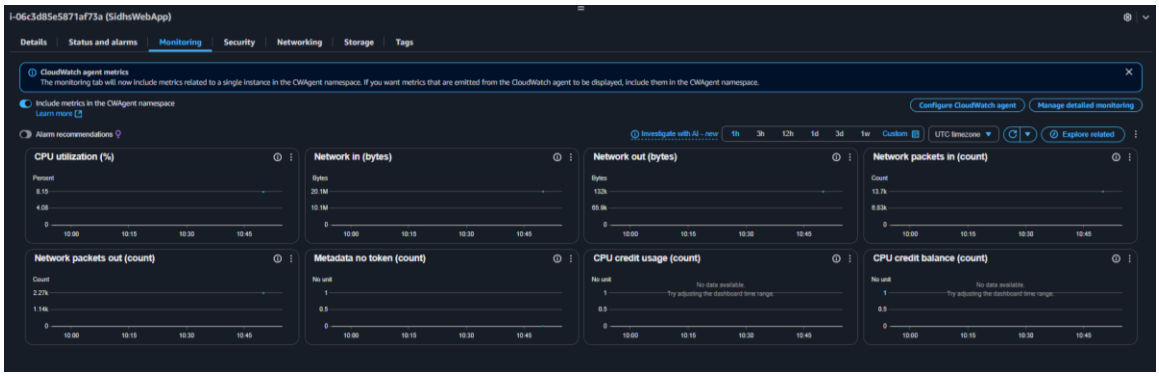
Screenshot 3: Apache Installed

```
[ec2-user@ip-10-0-65-103 ~]$ sudo yum install -y httpd
Last metadata expiration check: 0:00:31 ago on Tue Apr 22 10:54:09 2025.
Dependencies resolved.
================================================================================
 Package                 Architecture          Version                  Repository                Size
================================================================================
Installing:
 httpd                   x86_64                2.4.62-1.amzn2023        amazonlinux               48 k
```

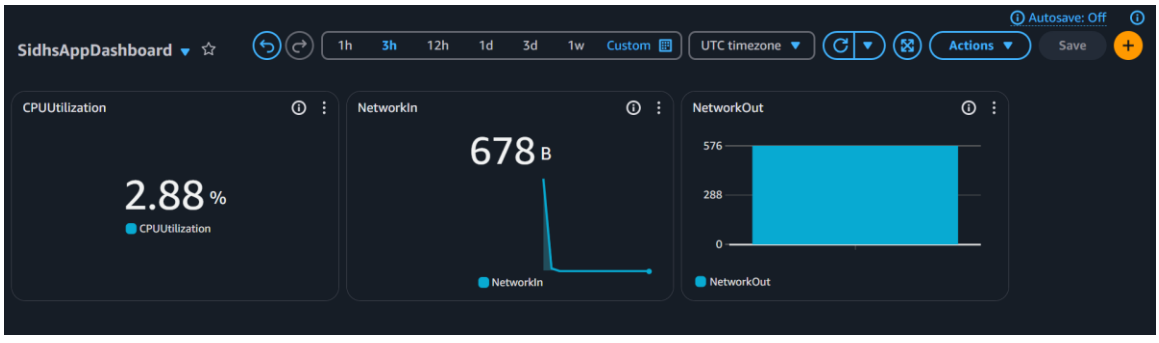
```
Installed:
  apr-1.7.5-1.amzn2023.0.4.x86_64                apr-util-1.6.3-1.amzn2023.0.1.x86_64    apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
  generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch  httpd-2.4.62-1.amzn2023.x86_64       httpd-core-2.4.62-1.amzn2023.x86_64
  httpd-filesystem-2.4.62-1.amzn2023.noarch      httpd-tools-2.4.62-1.amzn2023.x86_64    libbrotli-1.0.9-4.amzn2023.0.2.x86_64
  mailcap-2.1.49-3.amzn2023.0.3.noarch           mod_http2-2.0.27-1.amzn2023.0.3.x86_64  mod_lua-2.4.62-1.amzn2023.x86_64
```

2. CloudWatch Monitoring Setup

Screenshot 4: EC2 Monitoring Tab

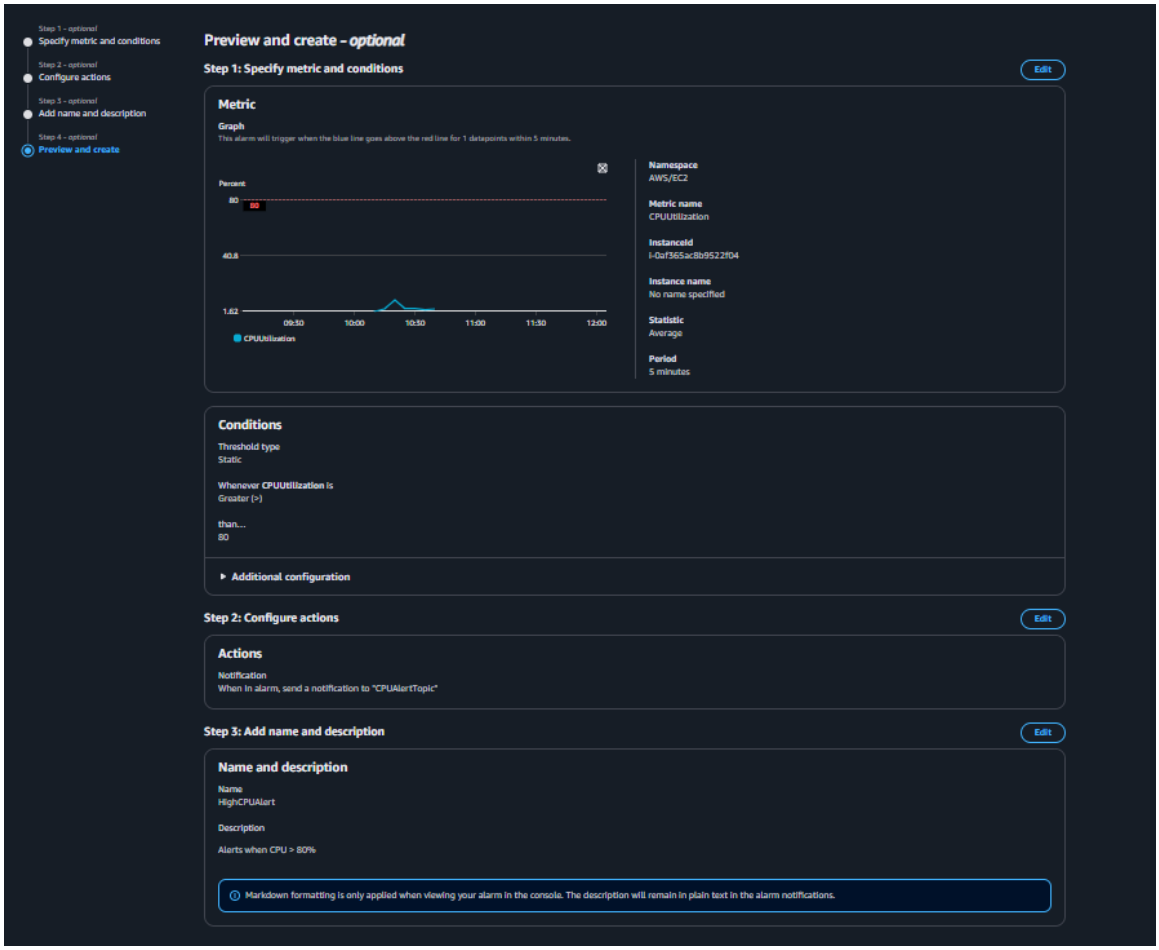


Screenshot 5: CloudWatch Dashboard

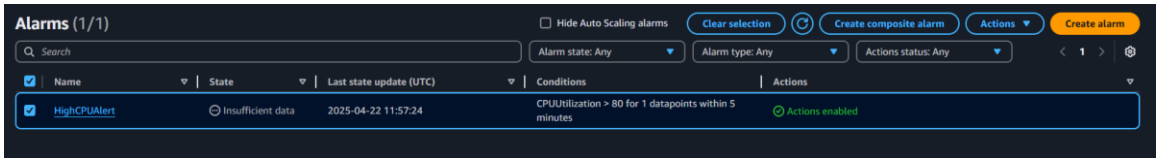


3. CloudWatch Alarm Configuration

Screenshot 6: Alarm Setup Summary

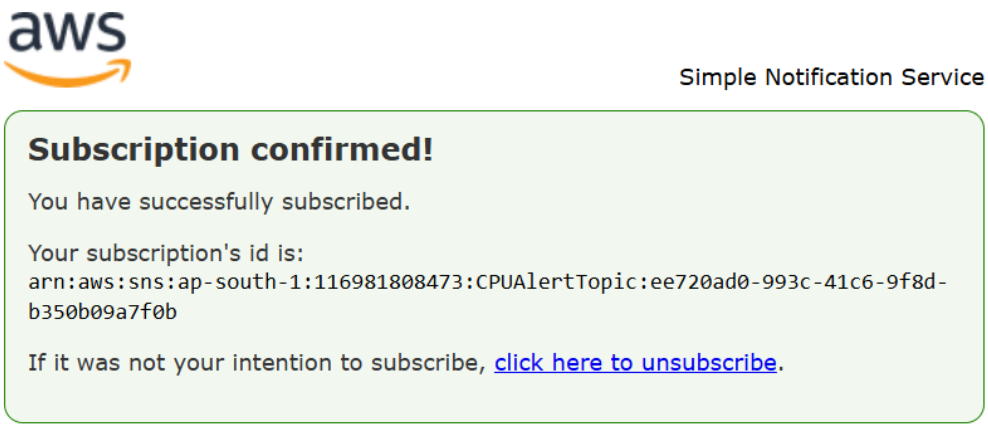


Screenshot 7: Alarm in Alarm List



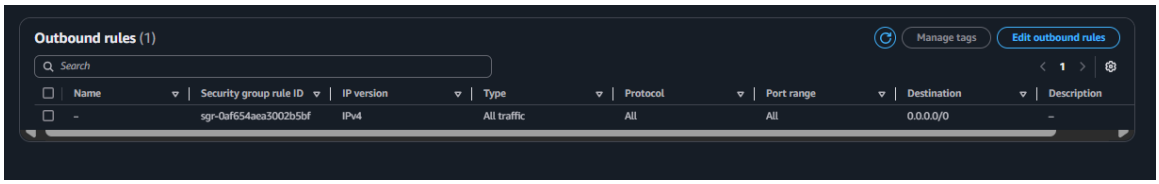
4. 📧 Notification Setup

📸 Screenshot 8: SNS Email Confirmation

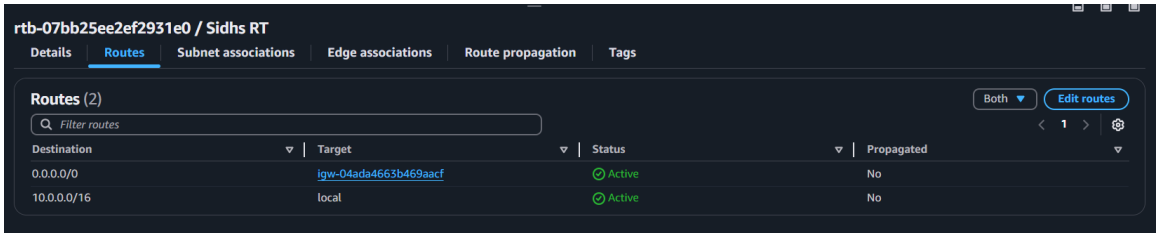


5. 🌐 Networking Setup (Bonus)

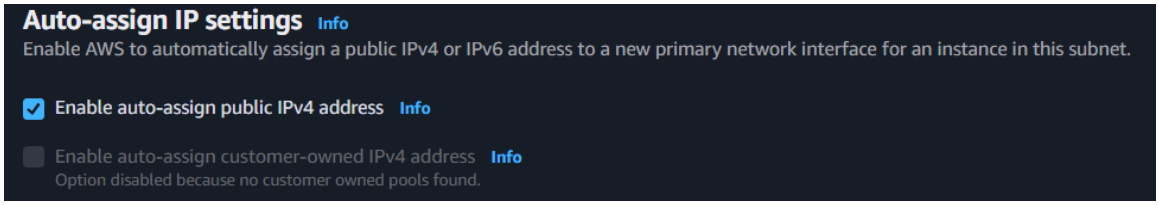
📸 Screenshot 9: Security Group Rules



Screenshot 10: Route Table with IGW



Screenshot 11: Subnet Public IP Enabled



Conclusion

This project demonstrates successful deployment and monitoring of a web application on AWS using EC2 and CloudWatch. Real-time monitoring, custom dashboards, and alarm-based notifications were implemented to meet cloud observability requirements.