Observing Cloud Resources

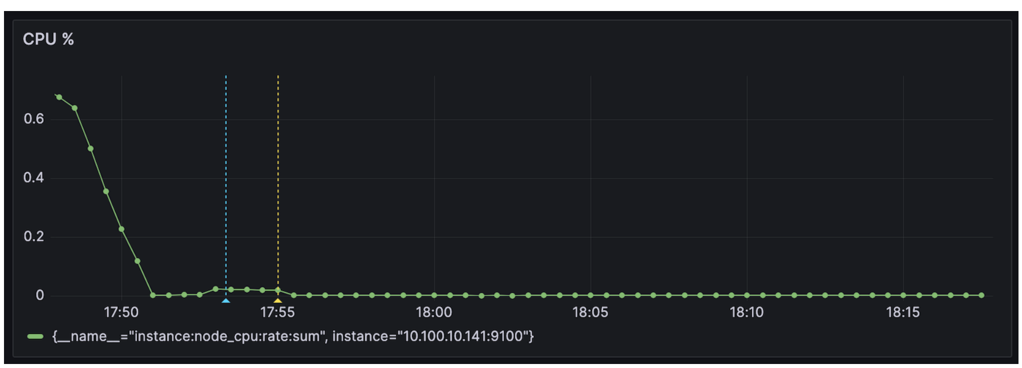
SRE Project Template

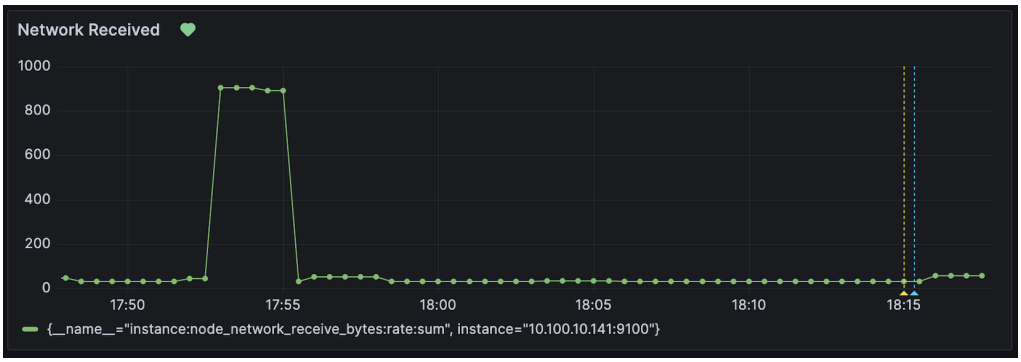
Categorize Responsibilities

Prometheus and Grafana Screenshots
Provide a screenshot of the Prometheus node_exporter service running on the EC2 instance. Use the following command to show that the system is running: `sudo systemctl status node_exporter`

```
ubuntu@ip-10-100-10-141:~/node_exporter-1.6.1.linux-amd64$ systemctl status node_exporter
● node_exporter.service - Node Exporter
   Loaded: loaded (/etc/systemd/system/node_exporter.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-09-14 15:02:39 UTC; 14min ago
 Main PID: 2891 (node_exporter)
    Tasks: 4 (limit: 1109)
   CGroup: /system.slice/node_exporter.service
           └─2891 /usr/local/bin/node_exporter

Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.851Z caller=node_exporter.go:117
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.854Z caller=tls_config.go:274 lev
Sep 14 15:02:39 ip-10-100-10-141 node_exporter[2891]: ts=2023-09-14T15:02:39.854Z caller=tls_config.go:277 lev
lines 1-18/18 (END)
```

Host Metric (CPU, RAM, Disk, Network)	Dashboard
CPU	

RAM	
Disk I/O	
Network Received	

Responsibilities

1. The development team wants to release an emergency hotfix to production. Identify two roles of the SRE team who would be involved in this and why.

DevOps: This role would be necessary for deploying the hotfix into the production environment. They would work to ensure that the correct version of the software is released smoothly and efficiently.

SRE: Site Reliability Engineers would be responsible for making sure that the release goes smoothly and doesn't negatively impact the production environment. They would monitor system metrics before and after the hotfix to ensure stability and performance.

2. The development team is in the early stages of planning to build a new product. Identify two roles of the SRE team that should be invited to the meeting and why.

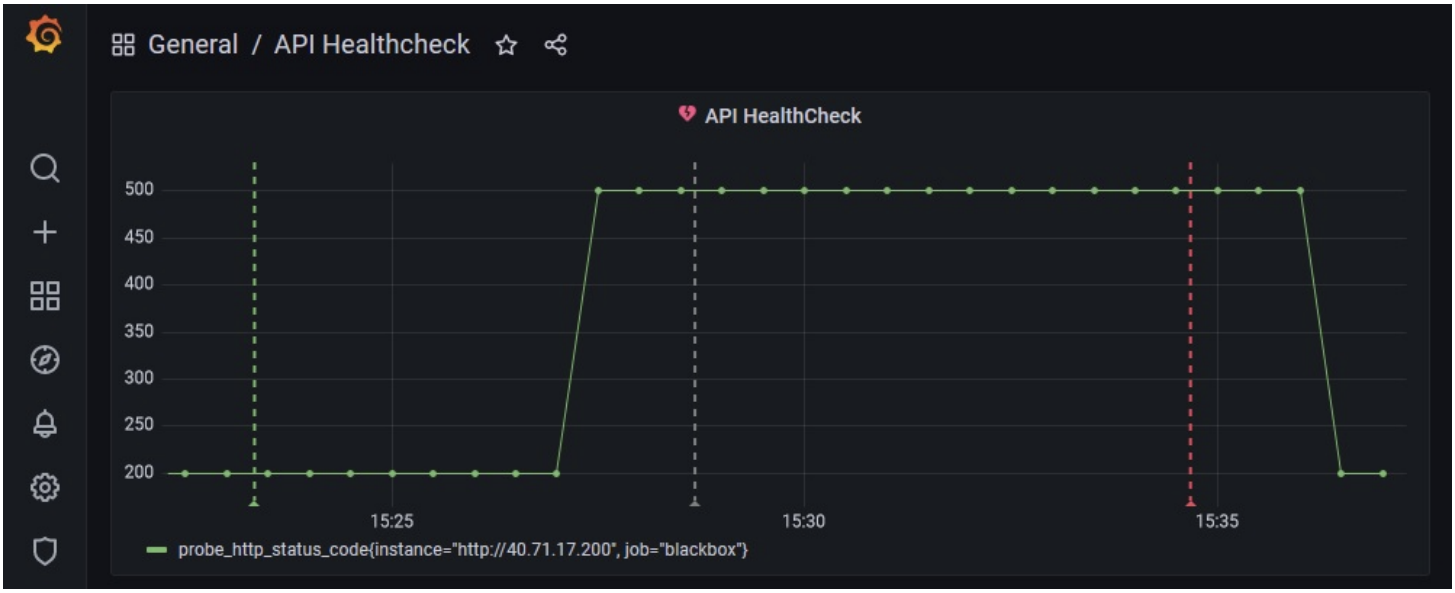
Developer: The development team needs to be present at the meeting to understand what is feasible to implement and what kind of resources would be needed from a software perspective.

SRE: SREs should be invited to discuss the operational aspects, such as what it will take to maintain uptime, scalability, and reliability of this new product. They can provide insights on the infrastructure needed and how to set up effective monitoring and alerting from the start.
3. The emergency hotfix from question 1 was applied and is causing major issues in production. Which SRE role would primarily be involved in mitigating these issues?
SRE: Given that the hotfix is causing major issues in production, the SRE role would be primary in mitigating these issues. They would work on identifying the root cause and implementing immediate measures to stabilize the production environment. They might also collaborate with DevOps for rolling back the changes if necessary.

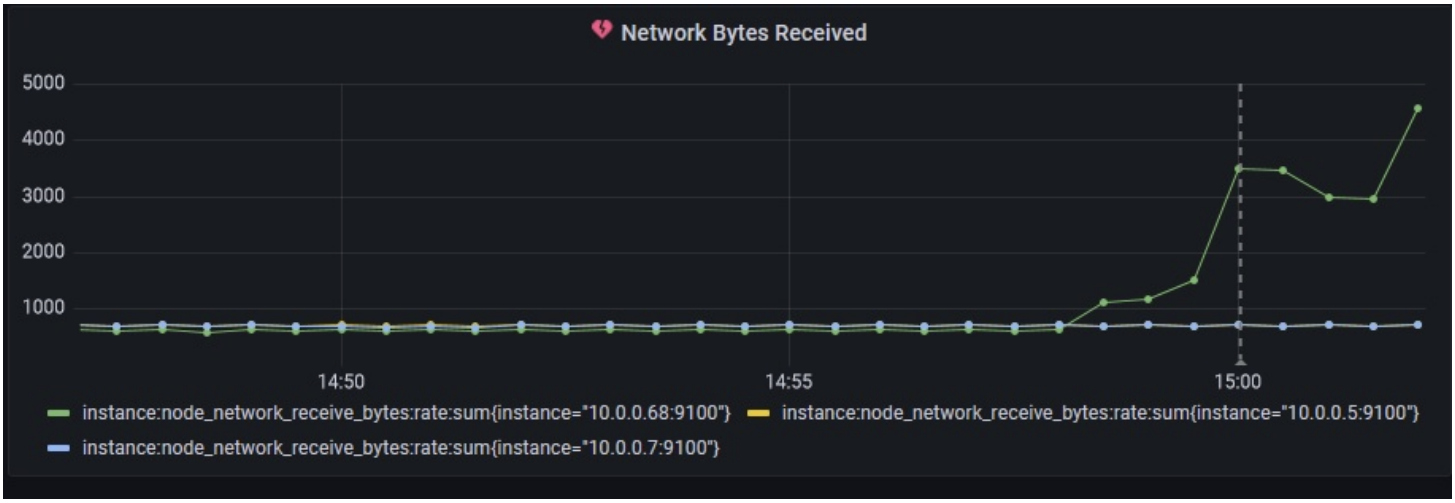
Team Formation and Workflow Identification

API Monitoring and Notifications
Display the status of an API endpoint: Provide a screenshot of the Grafana dashboard that will show at which point the API is unhealthy (non-200 HTTP code), and when it becomes healthy again (200 HTTP code).
[TODO: copy screenshot here]
Create a notification channel: Provide a screenshot of the Grafana notification which shows the summary of the issue and when it occurred.
[TODO: copy screenshot here]
Configure alert rules: Provide a screenshot of the alert rules list in Grafana.
[TODO: copy screenshot here]

Applying the Concepts

Graph 1

4a. Given the above graph, where does it show that the API endpoint is down? Where on the graph does this show that the API is healthy again?
[TODO: Type your answer here]
4b. If there was no SRE team, how would this outage affect customers?
[TODO: Type your answer here]
4c. What could be put in place so that the SRE team could know of the outage before the customer does?
[TODO: Type your answer here]

Graph 2



5a. Given the above graph, which instance had the increase in traffic, and approximately how many bytes did it receive (feel free to round)?

[TODO: Type your answer here]

5b. Which team members on the SRE team would be interested in this graph and why?

[TODO: Type your answer here]