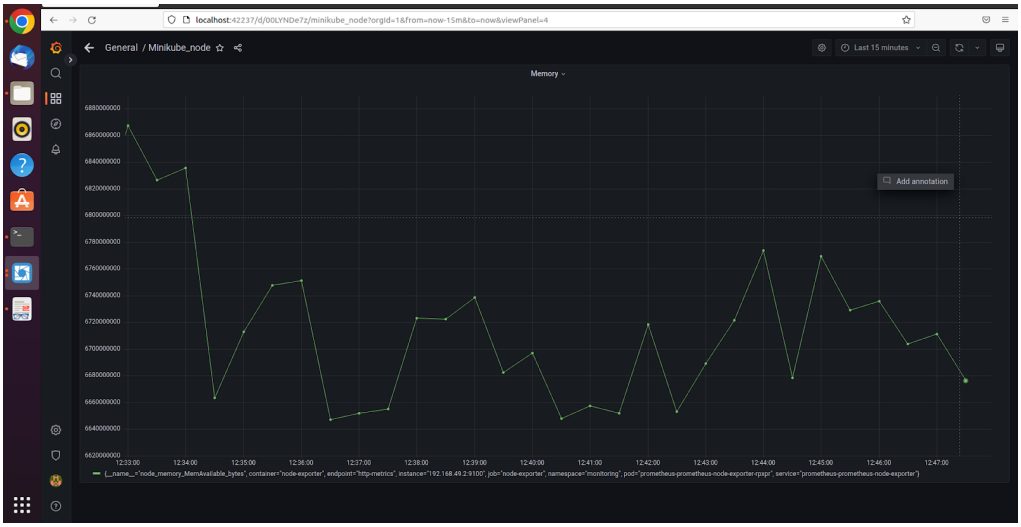
Observing Cloud Resources

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`
● node_exporter.service - Node Exporter Loaded: loaded (/etc/systemd/system/node_exporter.service; disabled; vendor p reset: disabled) Active: active (running) since Fri 2020-07-01 21:45:05 UTC; 6s ago Main PID: 2518 (node_exporter) CGroup: /system.slice/node_exporter.service └─2518 /usr/local/bin/node_exporter

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

RAM METRICS	
DISK IO METRICS	
NETWORK METRICS	

Responsibilities

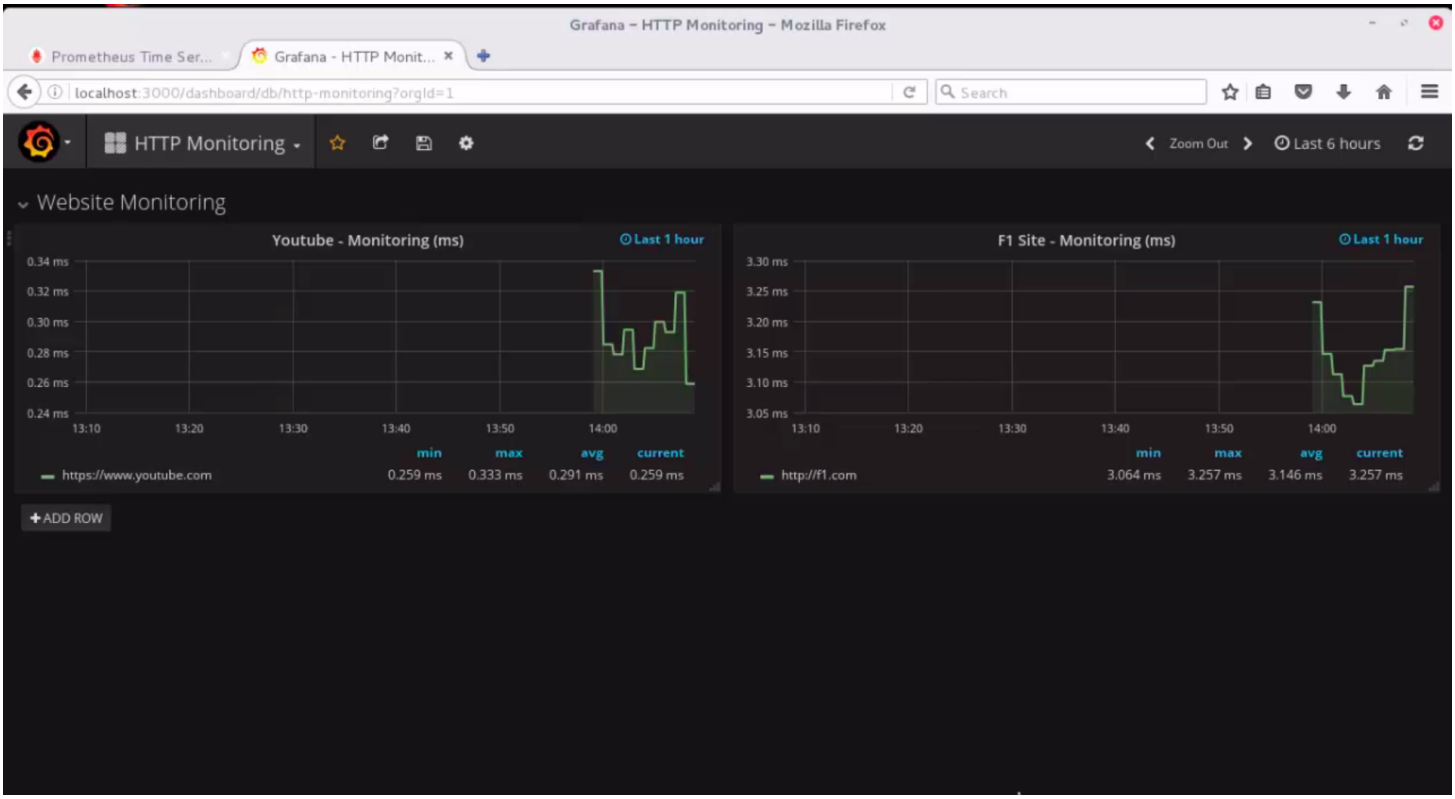
1. The development team wants to release an emergency hotfix to production. Identify two roles of the SRE team who would be involved in this and why.

System Architect and Release Manager are the two important roles of the SRE team involve in releasing an emergency hotfix to production. Because, *1. System Architect is responsible for creating scalable infrastructure for a release* *2. Release Manager ensures the code as all the dependencies and executes release and rollback procedures.*
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.
The Team lead and the System Architect are the two roles that should be invited to the meeting . Because Team lead contributes to the Architecture that might help the new product. *As a System Architect is responsible for creating scalable infrastructure, he should know how much resources the new product uses. He may also recommend new technologies that can be implemented.*
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?
The Monitoring Engineer is the first to know of an incident. *The Release Manager rollsback the application to the previous versions to avoid downtime.* *The Infrastructure Engineer executes system patches and updates.*

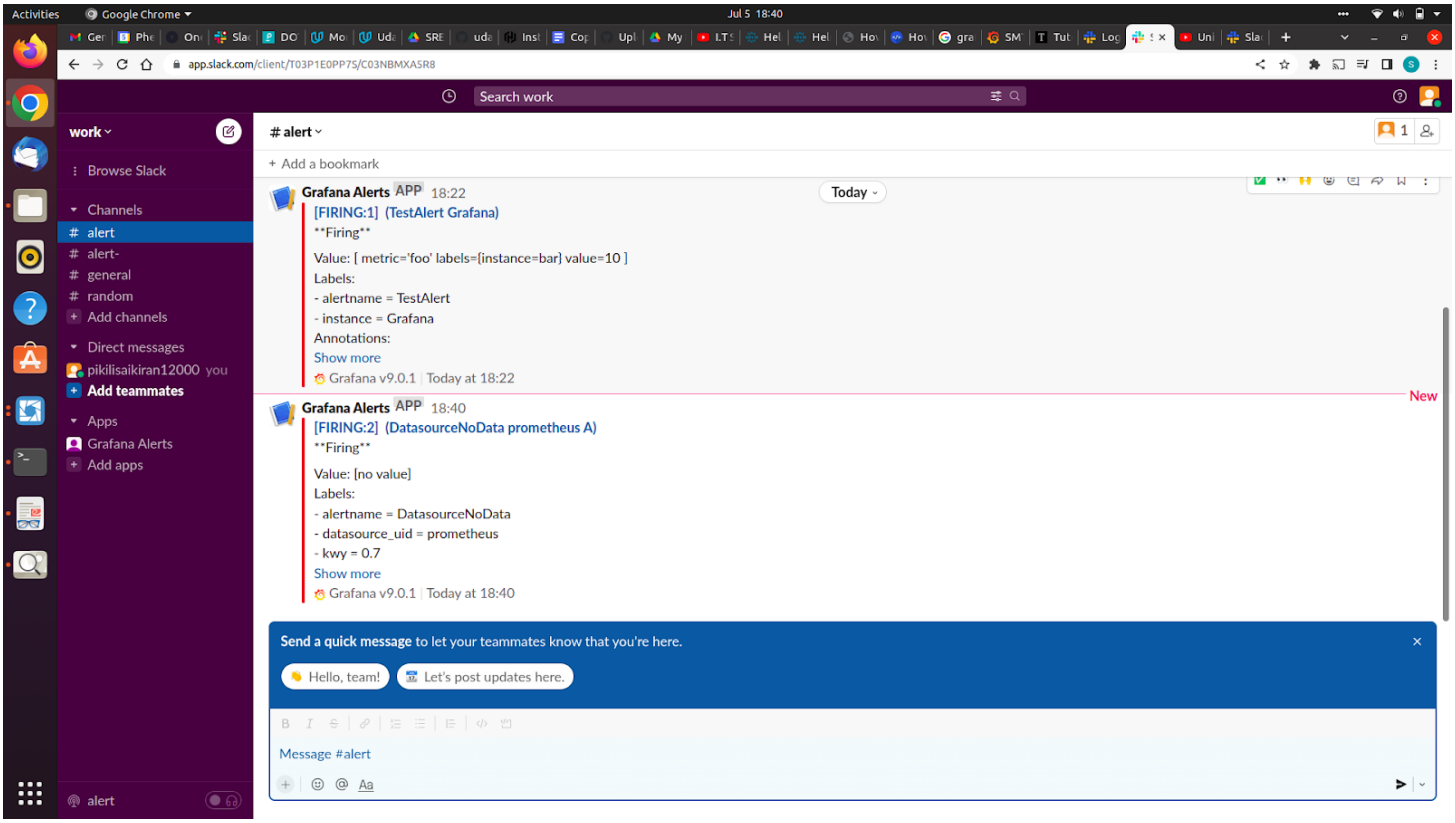
Team Formation and Workflow Identification

API Monitoring and Notifications

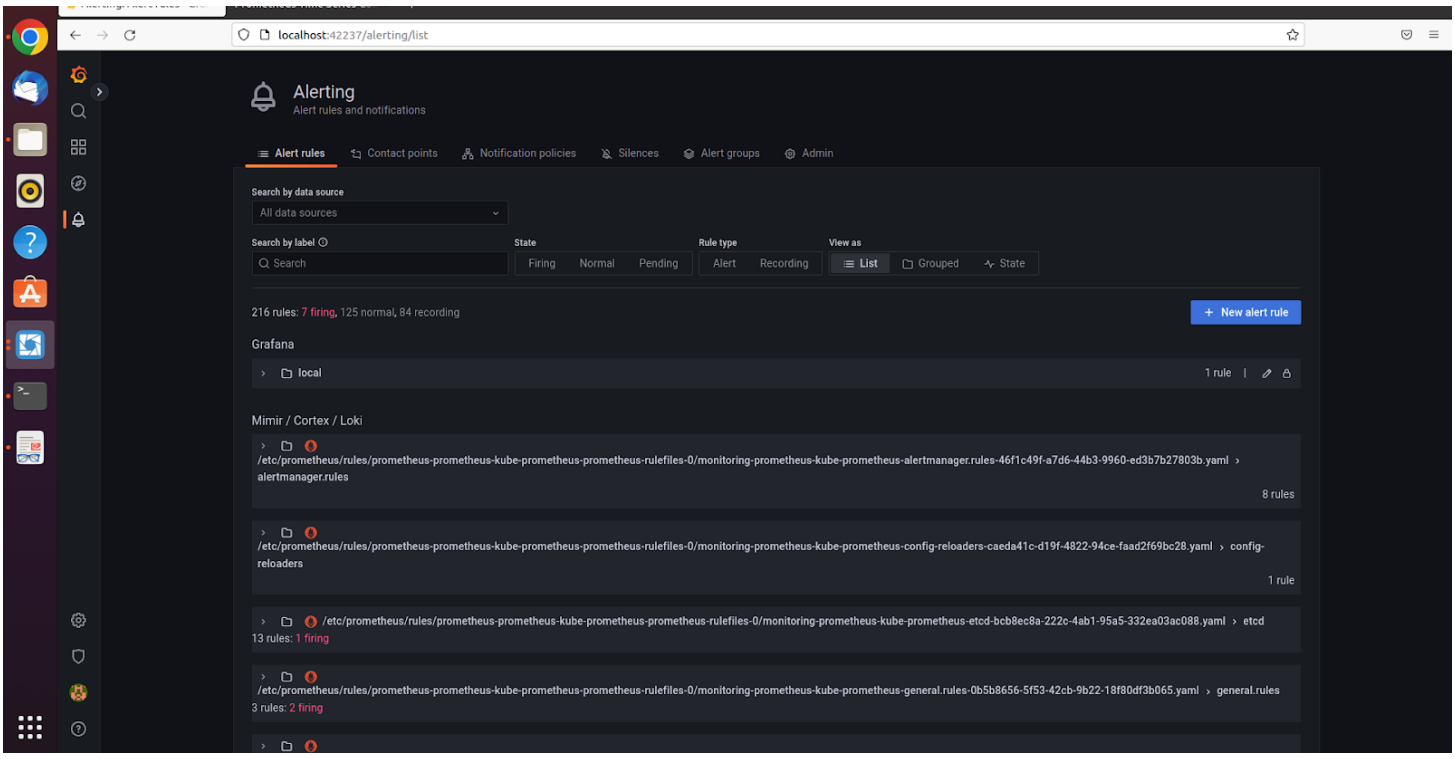
Display the status of an API endpoint: Provide a screenshot of the Grafana dashboard that will show at which point the API is unhealthy (non-200 HTTP code), and when it becomes healthy again (200 HTTP code).



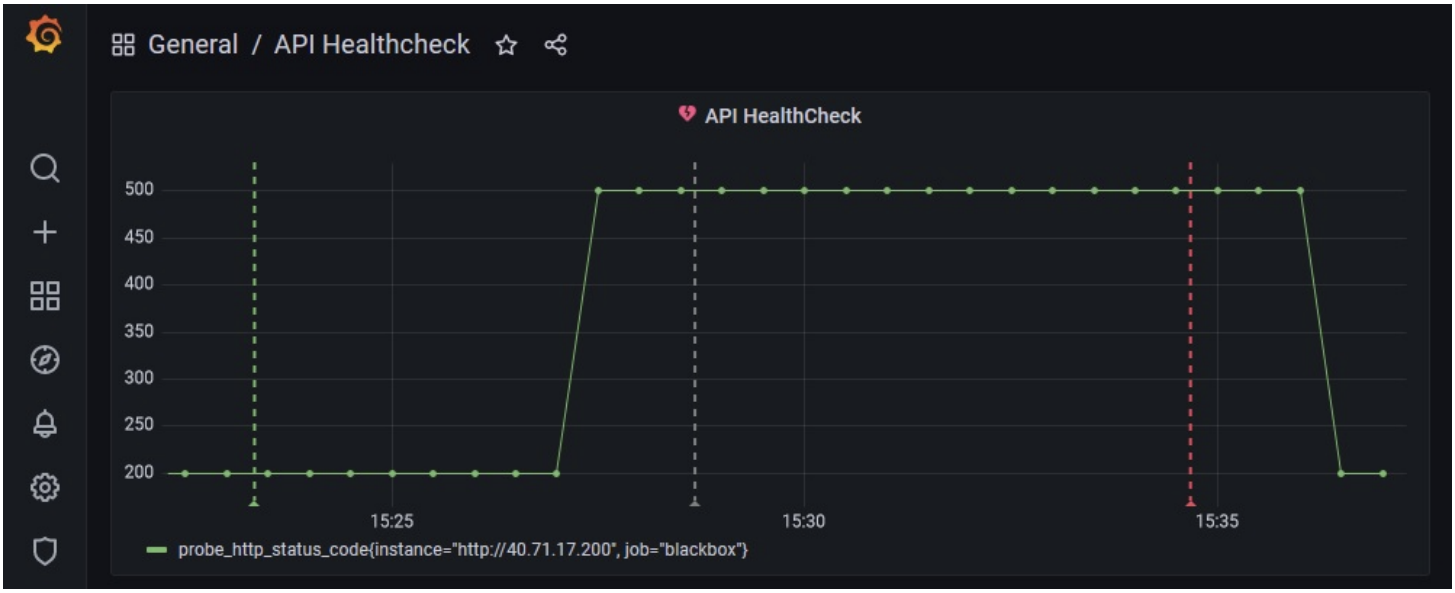
Create a notification channel: Provide a screenshot of the Grafana notification which shows the summary of the issue and when it occurred.



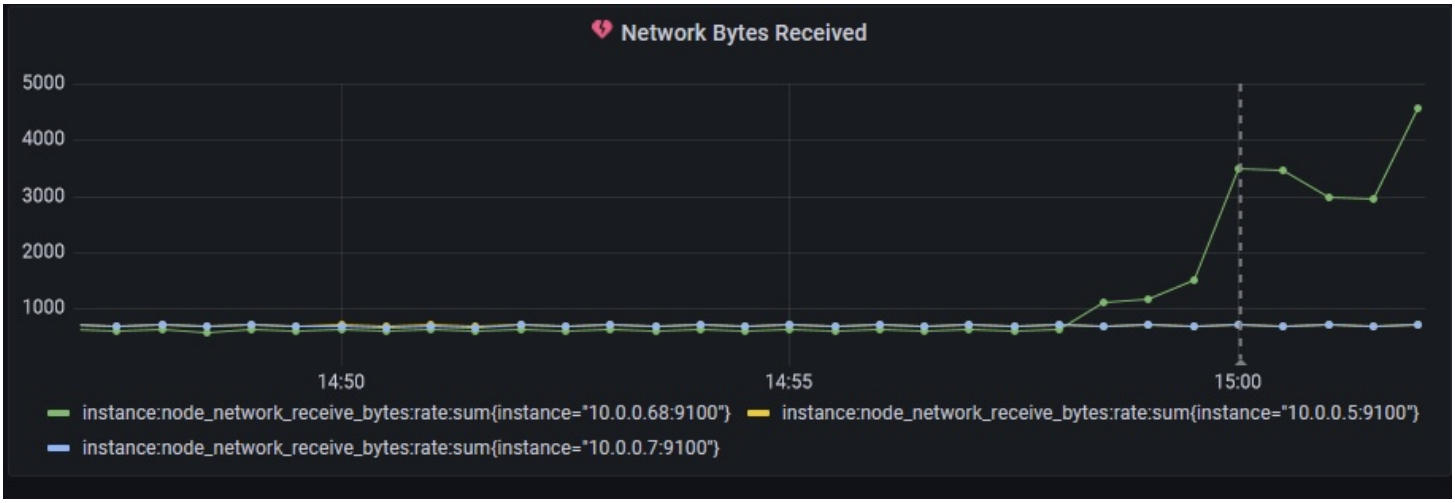
Configure alert rules: Provide a screenshot of the alert rules list in Grafana.



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?
At around 15:26 the API endpoint is down and at around 15:36 the API healthy again
4b. If there was no SRE team, how would this outage affect customers?
Without a SRE team there will be no one to monitor the API endpoint and this outage makes the API inaccessible to the customers. Therefore causing a downtime of the service.
4c. What could be put in place so that the SRE team could know of the outage before the customer does?
To know the outage before the customer does, the SRE team can create alerting rules for metrics. With this when a metrics value is above a critical value the team will get an alert in the created alerting channel.

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)?

The instance 10.0.0.68.9100 had an increase in traffic. It's approximately 3000 bytes.

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

The system architect would be more interested in it because he is responsible for scaling the infrastructure depending on the traffic received.