Observing Cloud Resources

*SRE Project Template*

# Categorize Responsibilities

| **Prometheus and Grafana Screenshots** | | |
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| 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 | | |
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| **Host Metric**  **(CPU, RAM, Disk, Network)** | **Dashboard** | |
| instance:node\_cpu:rate:sum |  | |
| node\_memory\_MemAvailable\_bytes |  | |
| node\_disk\_io\_now |  | |
| instance:node\_network\_receive\_bytes:rate:sum |  | |
| **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. | | |
| * Incident Manager: will managing the response to incidents * Release Engineer: managing the software release process | | |
| 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. | | |
| * Site Reliability Engineer: ensuring the reliability, scalability, and performance of the system * Security Engineer: ensures that security considerations are integrated into the product design from the beginning | | |
| 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? | | |
| * *identify the root cause of the issues, implement necessary fixes, and restore the system to a stable state.* | | |

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# Team Formation and Workflow Identification

| **API Monitoring and Notifications** | | |
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| 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). | | |
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| Create a notification channel: Provide a screenshot of the Grafana notification which shows the summary of the issue and when it occurred. | | |
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| Configure alert rules: Provide a screenshot of the alert rules list in Grafana. | | |
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# Applying the Concepts

| **Graph 1** | | |
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| 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? | | |
| *Endpoint down before 15:30*  *Endpoint healthy again 15:35* | | |
| 4b. If there was no SRE team, how would this outage affect customers? | | |
| *Customers would be unable to access the impacted service or product, resulting in frustration, loss of productivity, and potential financial losses for both the customers and the firm.* | | |
| 4c. What could be put in place so that the SRE team could know of the outage before the customer does? | | |
| * *Implement monitoring and alert system* * *Add health check for api* | | |

| **Graph 2** | | |
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| 5a. Given the above graph, which instance had the increase in traffic, and approximately how many bytes did it receive (feel free to round)? | | |
| * *Instance 10.0.0.69 had increase traffic from 14:58 and it receives almost 5000 bytes of data* | | |
| 5b. Which team members on the SRE team would be interested in this graph and why? | | |
| * *Monitoring engineer would be interested in this graph because there is an anomaly of 1 instance compared to other instances in the sudden increase in data updates* | | |

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