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 | | |
|  | | |
| **Host Metric**  **(CPU, RAM, Disk, Network)** | **Dashboard** | |
| CPU % |  | |
| Available Memory |  | |
| Disk I/O |  | |
| Network Received in Bytes |  | |
| **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. | | |
| *Release Manager because that person is responsible for change management and code releases.*  *Monitoring Engineer to help monitor the services and set custom alert rules which would help in case of an issue.* | | |
| 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. | | |
| *System Architect because he can make recommendations for new technology SRE Team Lead because he heading the team and he can contribute to architectural meeting* | | |
| 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? | | |
| Monitoring Engineer will be primarily involved because he’s the first one to respond to the incident. | | |

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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. | | |
| CPU alarm:  HTTP Status Code alarm:  HTTP Status Code alarm clear: | | |
| Configure alert rules: Provide a screenshot of the alert rules list in Grafana. CPU Alert Rule: | | |
| ***HTTP Status Code Alert Rule****[CPU alert Normal, HTTP Status Code Firing]:* | | |

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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? | | |
| *From the graph we can see that endpoint was down (i.e. endpoint started giving RC 500) in between 15:25 - 15:30 and was health again after 15:35.* | | |
| 4b. If there was no SRE team, how would this outage affect customers? | | |
| *If there was no SRE team most probably these alerts would not have been in place. Team would have known about the website being down after customer complaints. So it can be said that SRE team has helped reduce outage for this website* | | |
| 4c. What could be put in place so that the SRE team could know of the outage before the customer does? | | |
| *Endpoint probe based monitoring and alerting could help in monitoring the website status codes and alerting teams in case of website being down* | | |

| **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)? | | |
| *Traffic increased for instance “10.0.0.68:9100” after 14:59 and Node received traffic in excess of 3500.* | | |
| 5b. Which team members on the SRE team would be interested in this graph and why? | | |
| *System Architect would be interested in this graph because he’ll need to do capacity planning and if required need to provision more infrastructure.* | | |

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