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** | |
| *CPU % Metric* |  | |
| Available Memory in bytes |  | |
| Network Received in bytes |  | |
| Disk I/O |  | |
| **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 - He/She is responsible for the change management (hotfix deployment is a change) and he/she is also responsible for the role back and CI / CD.*  *Infrastructure Engineer - He/She is responsible for planning/executing system patches/updates.* | | |
| 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 - He/she makes recommendations for new technologies and the integration of the new technologies.*  *Team Lead - He/she contributes to architecture meetings and he/she forms the workflows of the team.* | | |
| 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? | | |
| *Release Manager - He/She is responsible for performing the role back. So he/she can make sure that production is ASAP back online.* | | |

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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? | | |
| *Down: approx: 15:27*  *Healthy again approx: 15:37* | | |
| 4b. If there was no SRE team, how would this outage affect customers? | | |
| *The website would not be available (the customers will see some kind of a JSON formatted error message, so maybe they will also get some insides of our internal infrastructure) and so no sales on our side and the customers would be under the impression, that we are not are very professional working company.* | | |
| 4c. What could be put in place so that the SRE team could know of the outage before the customer does? | | |
| *The SRE team should set up: a “Synthetic Monitoring Solutions” to monitor the HTTP status and if the HTTP status is not 200 (or in the range of 200-299) for a period of 2 minutes send out a notification to the team.* | | |

| **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)? | | |
| *The instance 10.0.0.5 has a traffic spike. It started around 14:57, a max value of = 4500, a min value of= 1000, and in total (after the increase) = 1100+1200+1500+3500+3500+3000+3000+4500 = 21300.* | | |
| 5b. Which team members on the SRE team would be interested in this graph and why? | | |
| *The System Architect he/she could make new infrastructure recommendations, in case we have to change the network setting for the instances he can create the change in IaC. The monitoring manager has to be aware of the fact that we have now more traffic on this instance and he/she has to change alerting rule. If the spike appears after a release of a new feature the graph is also important for the release manager. Maybe a roleback is nessecary.* | | |

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