Observing Cloud Resources

*SRE Assessment Template*

# Categorize Responsibilities

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| **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 | |
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| **Host Metric**  **(CPU, RAM, Disk, Network)** | **Dashboard** |
| CPU  *instance:node\_cpu:rate:sum query* | Text  Description automatically generated with medium confidence |
| RAM  *node\_memory\_MemAvailable\_bytes* | Graphical user interface, text, application  Description automatically generated |
| DISK  *node\_disk\_io\_now* | Graphical user interface  Description automatically generated with low confidence |
| NETWORK  *instance:node\_network\_receive\_bytes:rate:sum* | Text  Description automatically generated |
| **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** – To execute release of hotfix via CI/CD tooling.  **Monitoring Engineer** – To provide early insight of any unexpected problems that the hotfix may cause. | |
| 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. | |
| **Team Lead** – To plan how the SRE team will take on the work  **System Architect** – To help define infrastructure requirements and migration path (if applicable). | |
| 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** – To rollback release of hotfix via CI/CD tooling. | |

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# Team Formation and Workflow Identification

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| **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). |
| *7587 Dashboard:*    *Simple dashboard using probe\_http\_status\_code*  *A picture containing text  Description automatically generated* |
| Create a notification channel: Provide a screenshot of the Grafana notification which shows the summary of the issue and when it occurred.  Slack alert: |
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| Configure alert rules: Provide a screenshot of the alert rules list in Grafana. |
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# Applying the Concepts

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| **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? |
| *A non-200 HTTP response code indicates that the API endpoint is down (the graph shows status code 500 which is a generic error response).*  *The error code occurs at 15:27 approximately and the site is down until approximately 15:37 when it returns to showing response code 200 i.e.* an outage of 10 minutes. |
| 4b. If there was no SRE team, how would this outage affect customers? |
| The site would be down from 15:27. The duration of the outage in the absence of an SRE team would depend on whether the restoration of service at 15:37 was due to SRE intervention or the service restoring itself – if the former, then no SRE team would mean that the service would remain down. |
| 4c. What could be put in place so that the SRE team could know of the outage before the customer does? |
| An alert via Slack, SMS text *etc.* could alert the SRE team as soon as the outage occurred. Even better - additional alerts could be set up on host metrics to enable problems to be addressed before they result in an outage. This would all help to minimize or even eliminate outages for the customer. |

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| **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)? |
| 10.0.0.68 had the increase in traffic, up to approximately 5000 bytes received. |
| 5b. Which team members on the SRE team would be interested in this graph and why? |
| The **Infrastructure Engineer** members would be interested in the graph as it shows a single instance receiving an increase in traffic, which might indicate a problem in load balancing. If this were due to an architectural problem, then the **System Architect** might get involved.  The **Release Manager** might be interested if the sudden increase occurred following a recent release. |

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