Planetarium Postmortem

Date: 01/27/2023

Authors: Trevor, Jiawen, Colton

Status: Complete

Summary: Exception handling logic was broken for the findAll method in the PlanetService class. Fix was applied and deployed

Impact: Minimal impact to customers

Root Causes: Broken logic in the findAll method of the PlanetService class caused an error to be thrown when there were planets present, and it returned an empty list instead of throwing an EntityNotFound if there were no planets present

Trigger: Request to findAll Planets

Resolution: Rolled back to the previously working image of the application until the bug was found, fixed, and tested. Applied new image after fixing and testing the broken route.

Detection: High amount of HTTP 500s returned at that route and falling success rate detected

Lessons Learned

What went well

- We were actively monitoring the application at the time the bug was occurring which allowed us to notice it right away.
- The team quickly found which file the bug was in and applied the fix before the rollback

What went wrong

- An exception was being triggered through a route access when it shouldn't have been
- We were quickly using up our error budget

Where we got lucky

- The route that was throwing the error was being used frequently and got picked up by Loki
- Loki logs displayed the error log along with Thunder Client
- We had prior experience with the application and knew the most likely place it would be throwing the error from

2:18- Failure on /api/planet Get route causing failures as seen in Thunder Client

2:19- No logs are being generated with Loki in Grafana

2:24- Checked pod logs to see error generated by get all planets route

2:33- Broken error handling found in the findAll() method in PlanetService class. Error was thrown when there was no error and no error was thrown when there was an error. Switched the logic.

2:37- Rolled back to base image

2:40- Updated image and deployed to the cluster. Route is working as intended

2:45- Trying to apply promtail-configuration to see if the issue is with volumes

2:46- Applying the configuration says unchanged

2:47- Logs appeared in Loki. Maybe Loki just needed to boot. Not sure

2:59- Confirmed with manager that the new image is deployed and working as expected

3:26- **INCIDENT ENDS**, reached workable exit criterion for normal performance