AHMAD ZAFAR AGAH CS586 WEEK#5

05.1g: Storage, IAM

5.1.2. GCP Cloud Storage #1 (USGS)

- What role is attached to the Compute Engine default service account?

Editor: This is a broad role that grants read and write permissions for most Google Cloud resources within the project. It includes permissions for creating, updating, and deleting resources, but it doesn't cover all advanced permissions.
Storage Object Admin: This role specifically allows full access to Google Cloud Storage objects, enabling the service account to create, read, update, and delete objects in buckets.

- Would it be sufficient for the VM to perform its functions (i.e. creating buckets and reading/writing objects in them)?

Yes, these roles should be sufficient for the VM to perform tasks such as:

- Creating Buckets: The Editor role includes permissions to create, delete, and manage storage buckets within the project.
- Reading and Writing Objects: The Storage Object Admin role allows full access to objects within the buckets, including reading, writing, updating, and deleting objects.

- What permissions are given by the default access scope to Cloud Storage?

the Cloud Storage access scope is set to Read Only.

- Would they be sufficient for the VM to perform its functions (i.e. creating buckets and reading/writing objects in them)?

No, the Read Only scope is not sufficient if the VM needs to perform actions such as:

- Creating buckets in Cloud Storage.

- Writing new objects or modifying/deleting existing objects in Cloud Storage.
- What settings are possible for setting the VM's access to the Storage API?

Storage Read Only: if we need to read data.
Storage Read/Write:if we need to read and write data but don’t need to manage buckets.
Storage Full: if we need the VM to have full control over both objects and bucket management.

5.1.4. USGS data and setup

- What time did the latest earthquake happen?

Time: 2024-10-29T19:22:42.440Z

- What was the magnitude (mag)?

Magnitude (mag): 1.64

- Where was the place it happened?

Place: "21 km SSW of La Quinta, CA"

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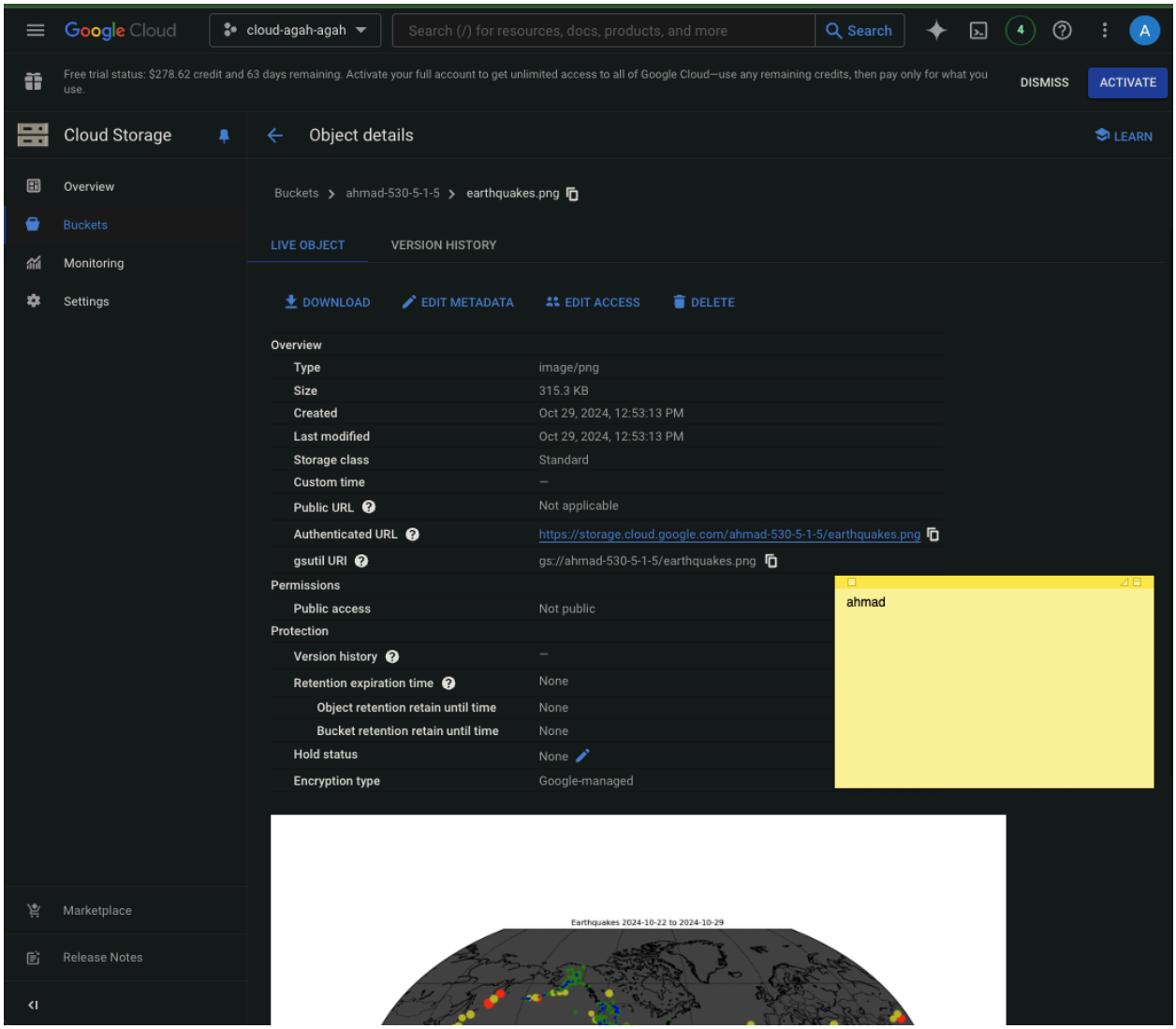
5.1.5. Python plotting code

- Take a screenshot of the image that has been created for your lab notebook.



5.1.9. Service account roles (Compute)

- What is the exact error message that is returned?

```
ahmadagah@gcs-lab-vm:~$ gcloud compute instances list
WARNING: Some requests did not succeed.
 - Required 'compute.instances.list' permission for 'projects/cloud-agah-agah'

Listed 0 items.
ahmadagah@gcs-lab-vm:~$
```

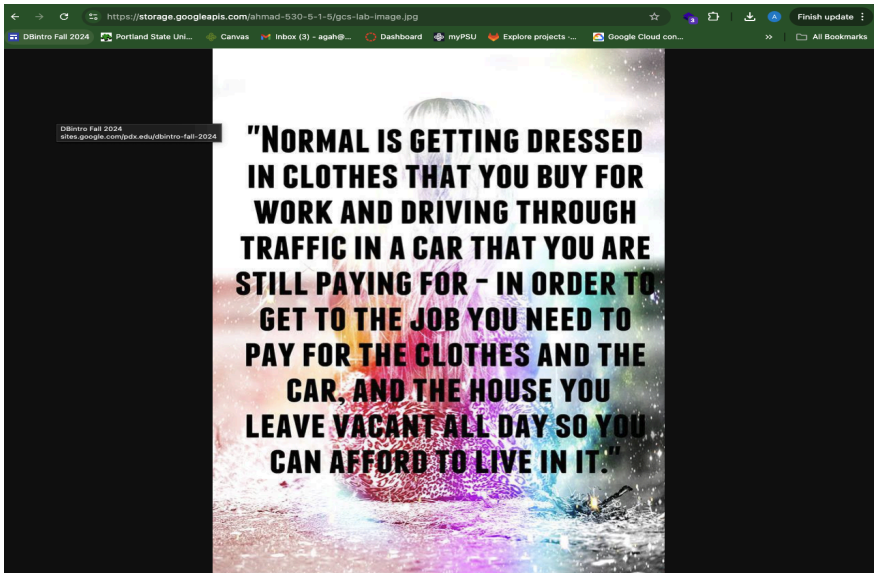
- What role needs to be added to the service account's permissions for the VM to have access to add an object to a storage bucket?

```
ahmadagah@gcs-lab-vm:~$ gcloud compute instances list
WARNING: Some requests did not succeed.
 - Required 'compute.instances.list' permission for 'projects/cloud-agah-agah'

Listed 0 items.
ahmadagah@gcs-lab-vm:~$ gcloud compute instances list
NAME        ZONE        MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP     STATUS
course-vm   us-west1-b  e2-medium                  10.138.0.2   34.169.84.137   RUNNING
gcs-lab-vm  us-west1-b  e2-medium                  10.138.0.18  35.233.201.128  RUNNING
ahmadagah@gcs-lab-vm:~$
```

5.1.13. View object

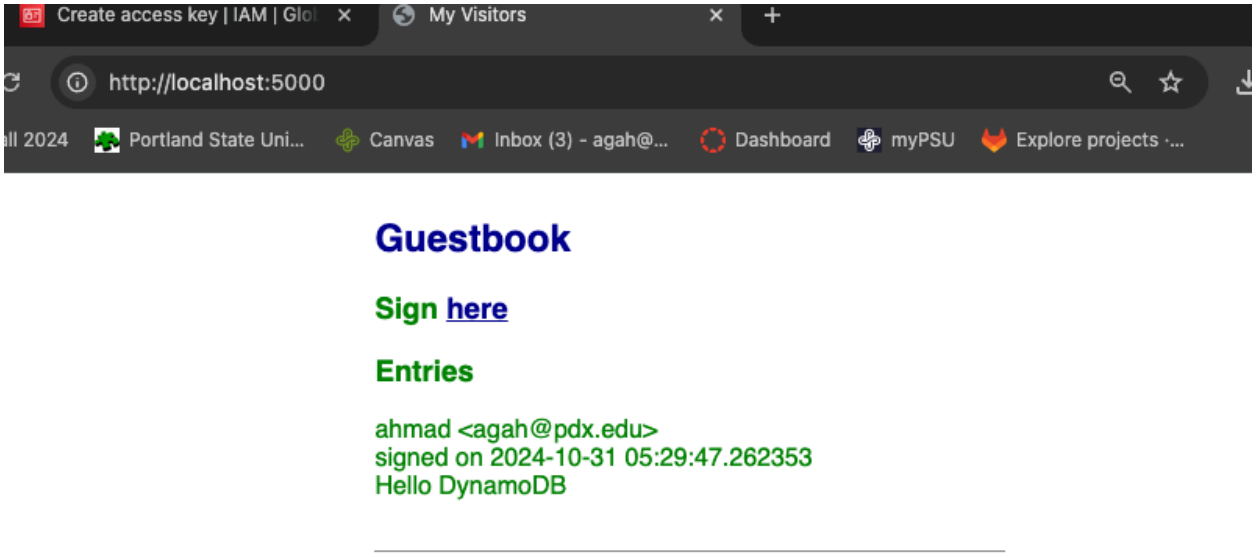
- Take a screenshot the shows the entire URL and the image that has been retrieved



05.2a: DynamoDB Guestbook

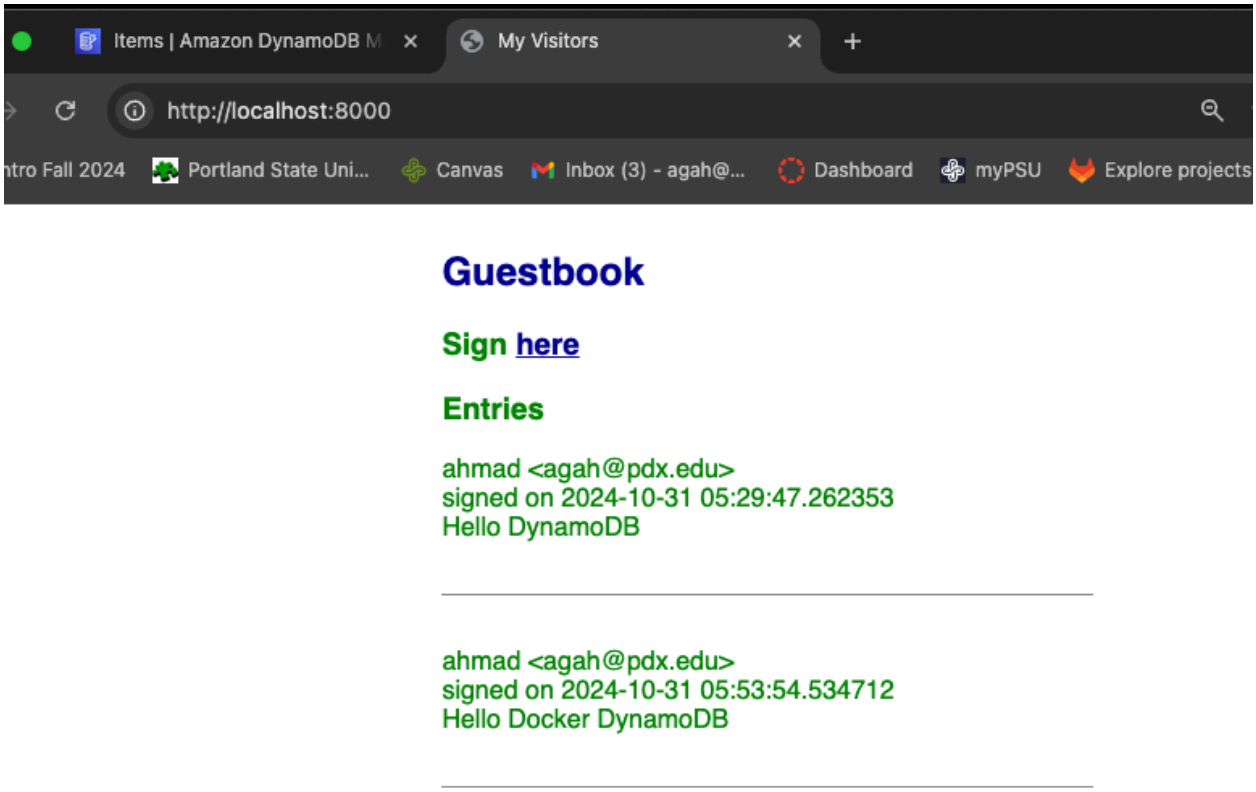
5.2.5. Run the application

- Take a screenshot of the output for your lab notebook.



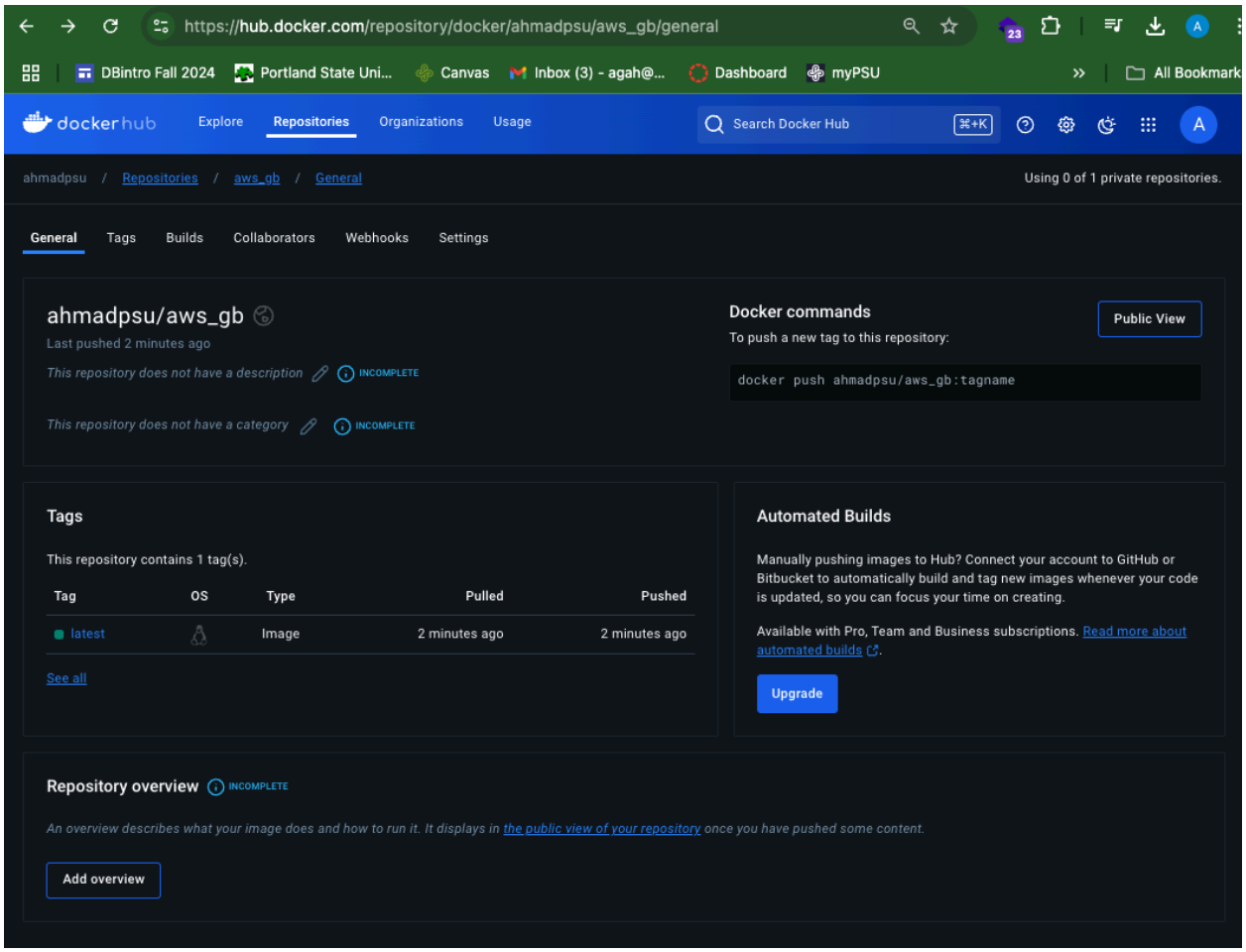
5.2.7. Run the application

- Take a screenshot of the output for your lab notebook.



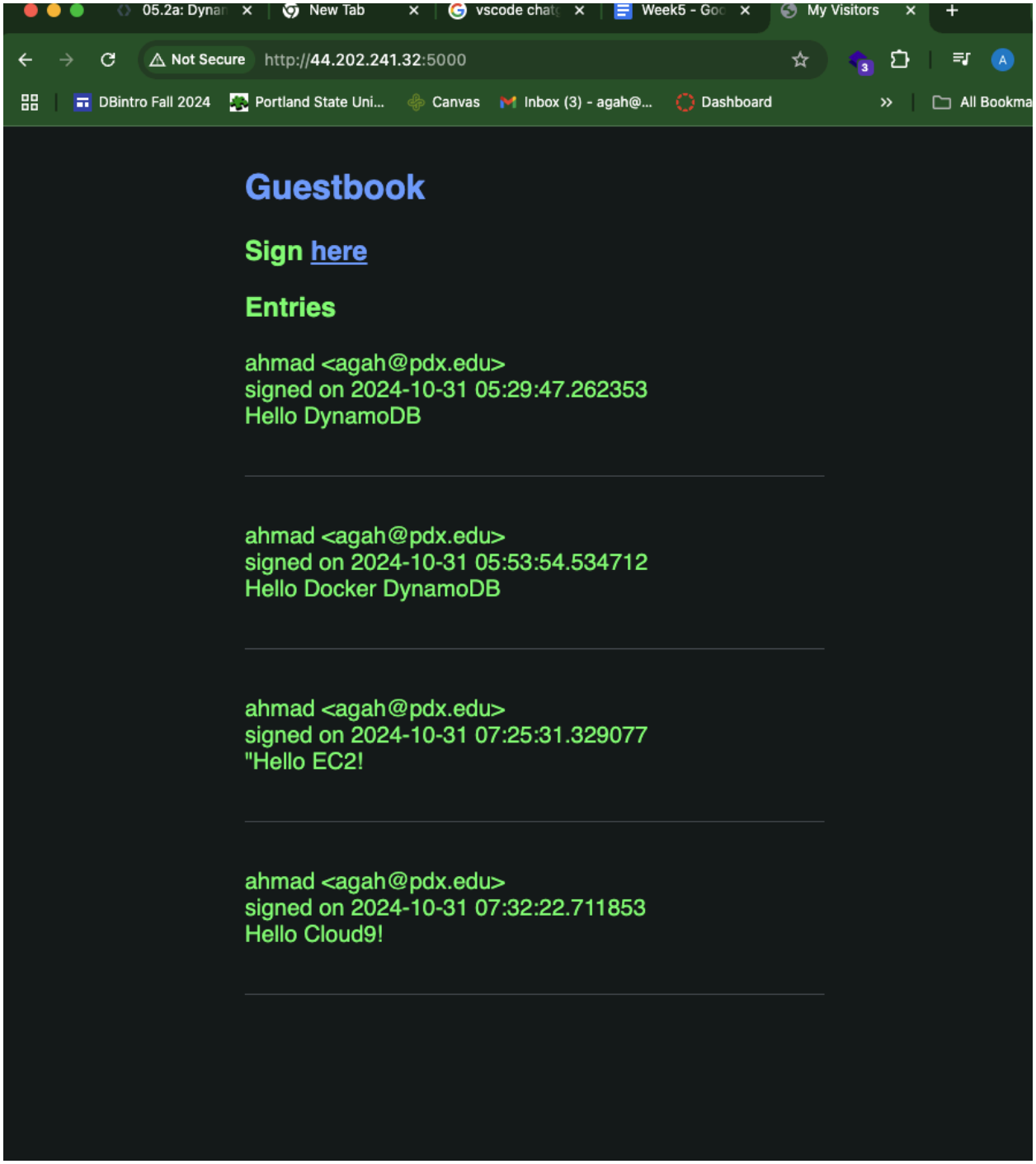
5.2.8. Push the container image

- Take a screenshot of the container image on DockerHub.



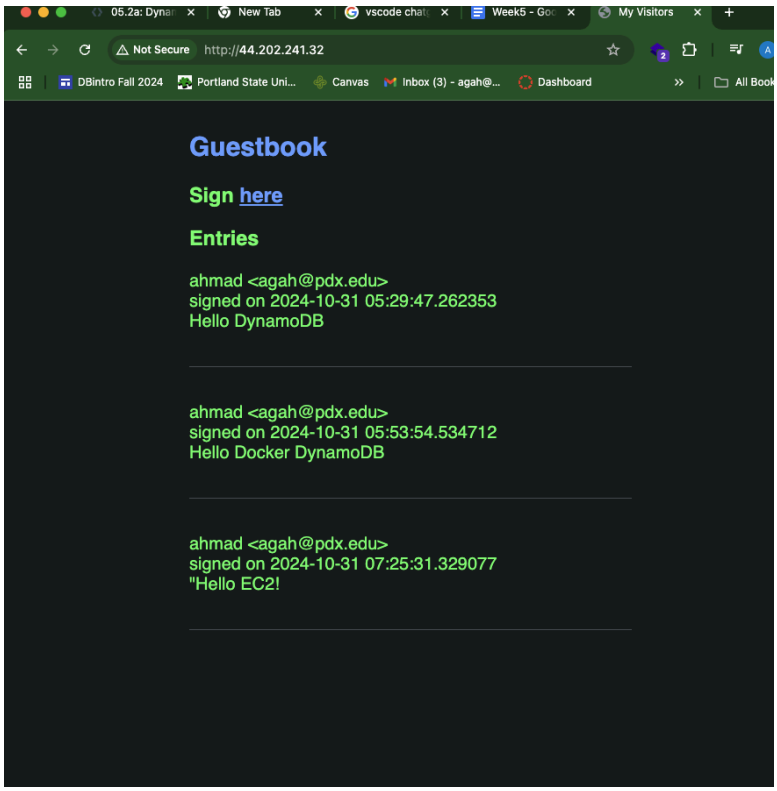
5.2.11. Run the application

- Take a screenshot as before that shows your entry and the IP address in the URL bar.



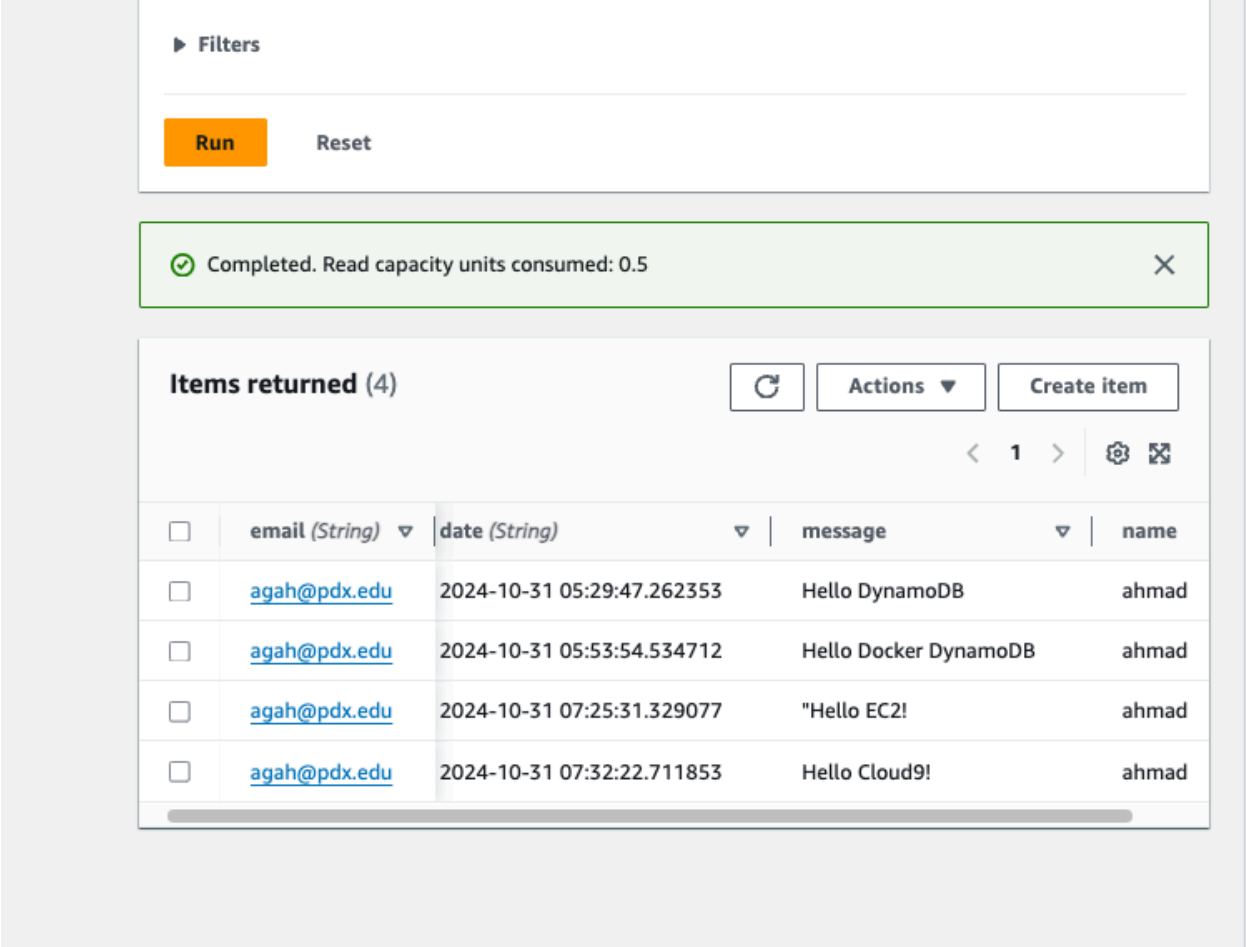
5.2.15. Visit the application

- Take a screenshot as before that shows your entry and the IP address in the URL bar.



5.2.16. View the database

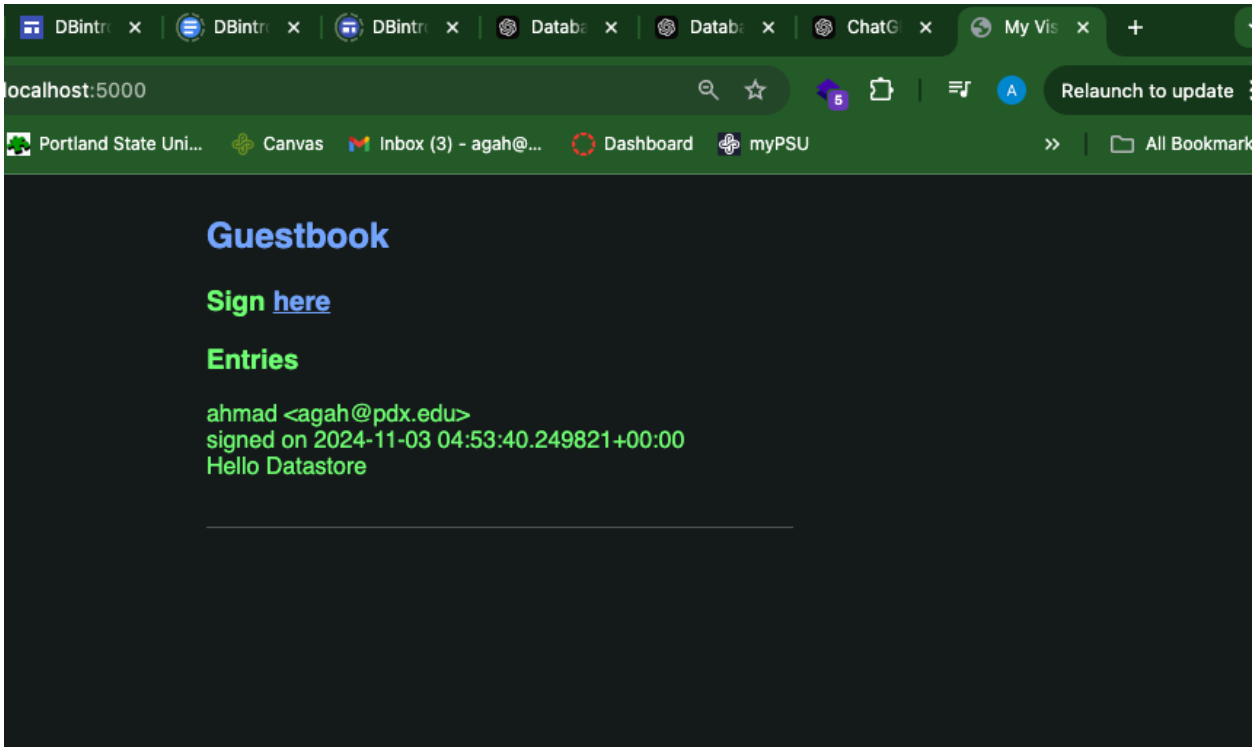
- Take a screenshot that shows all of the guestbook entries that you added to the DynamoDB table including their timestamps.



05.2g: Cloud Datastore Guestbook

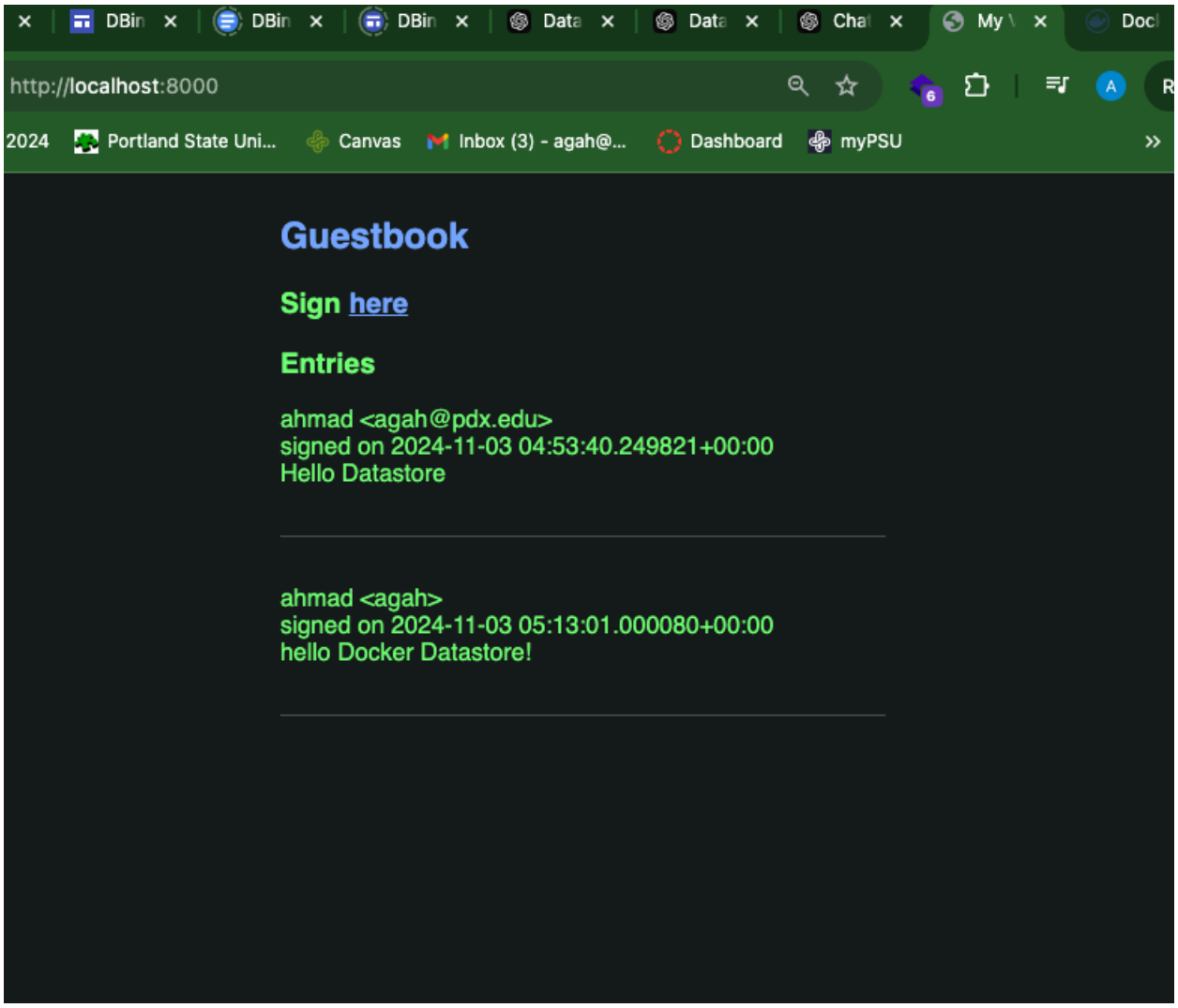
5.2.7. Run the application

- Take a screenshot of the output for your lab notebook.



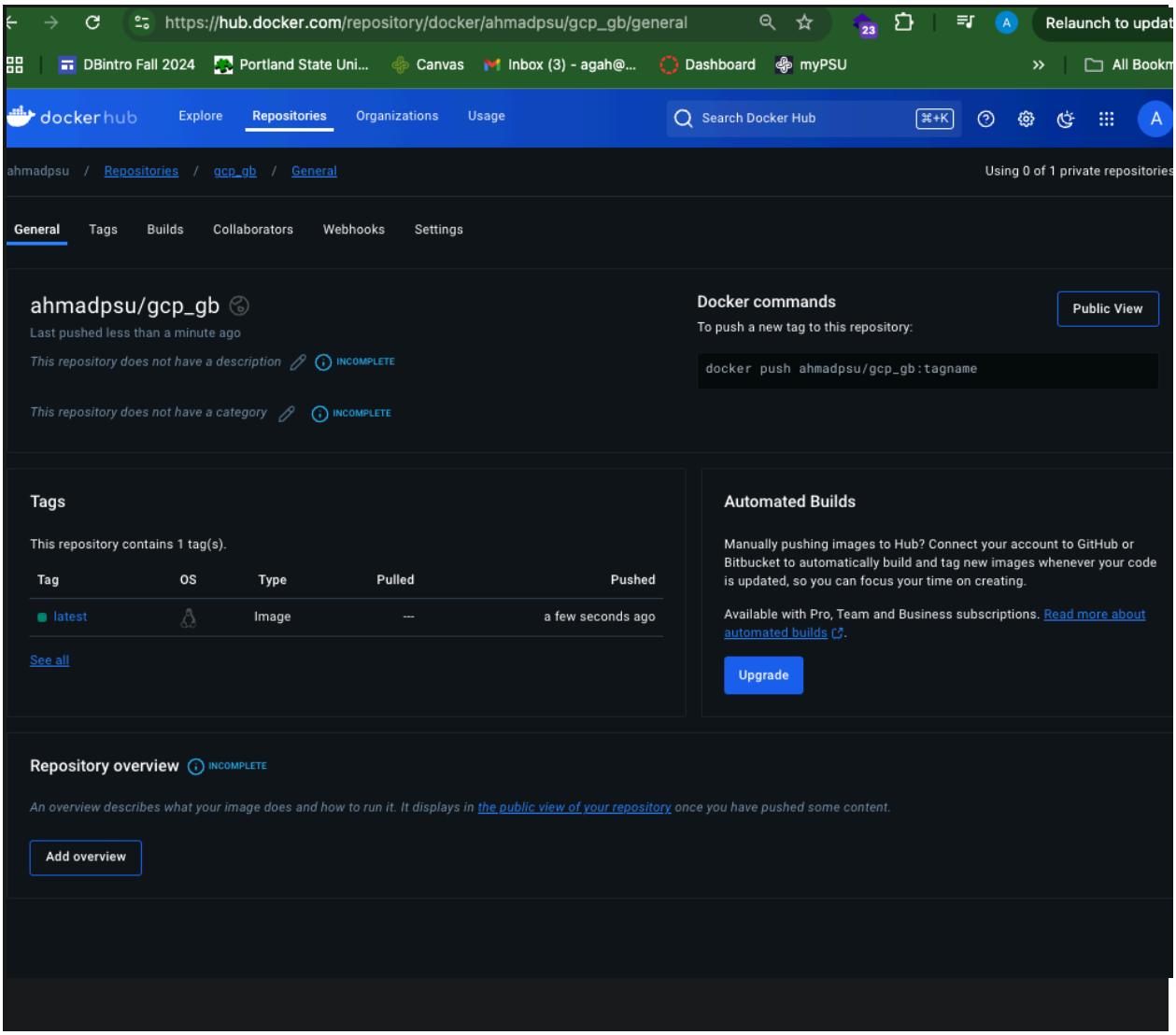
5.2.9. Run the application

- Take a screenshot of the output for your lab notebook.



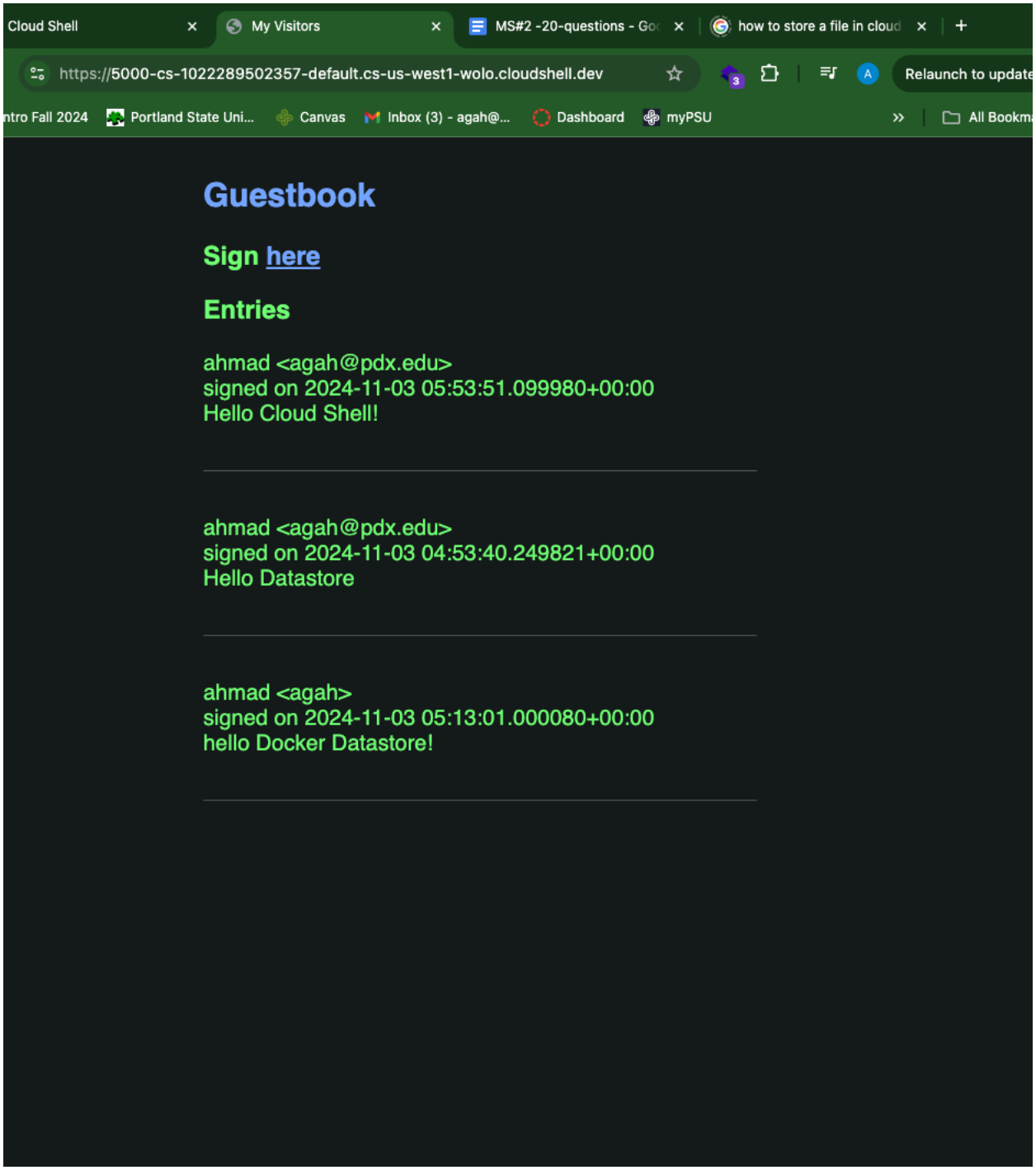
5.2.10. Push the container image

- Take a screenshot of the container image on DockerHub.



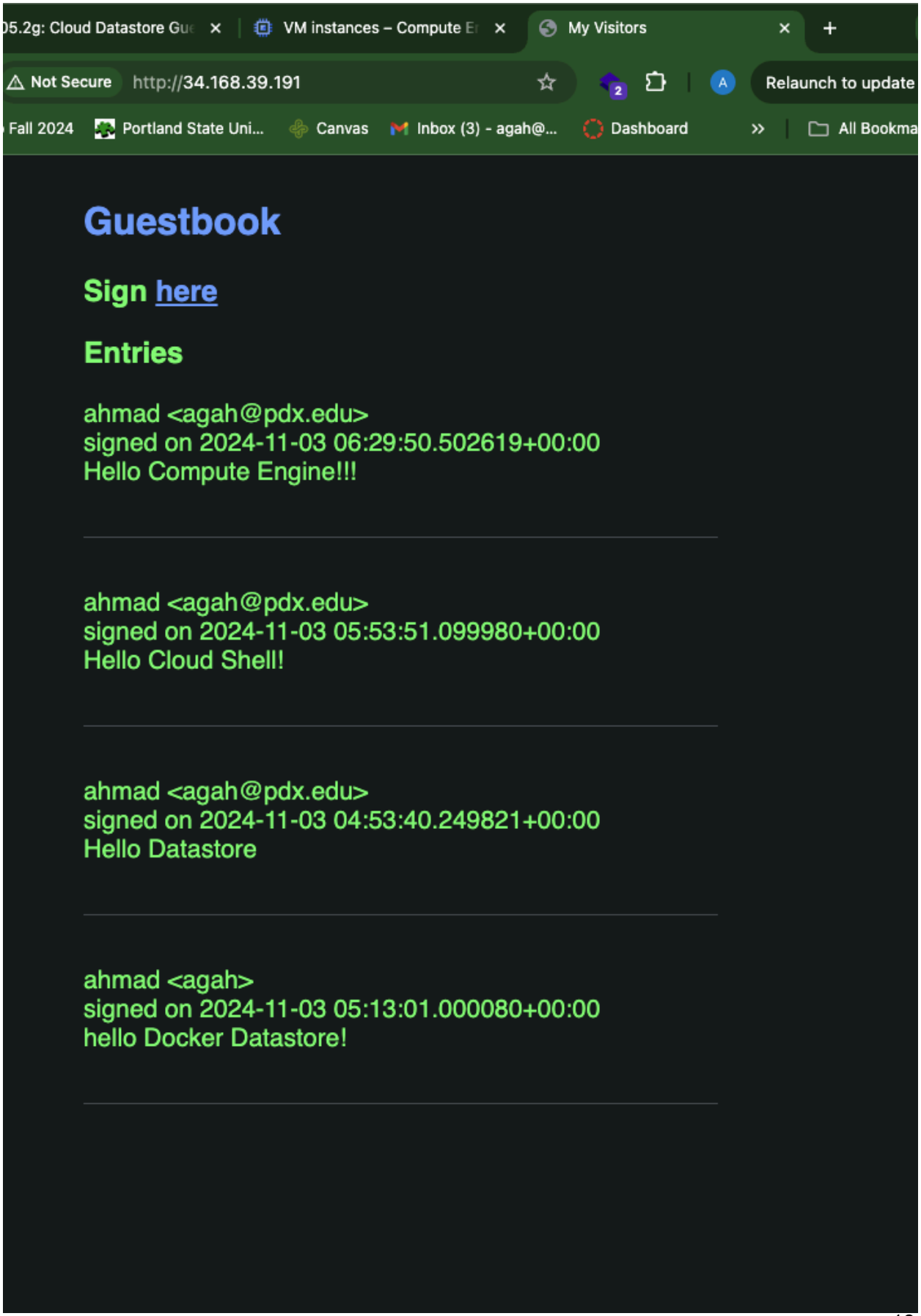
5.2.12. Run the application

- Take a screenshot as before that shows your entry and the URL bar.



5.2.15. Visit the application

- Take a screenshot as before that shows your entry and the IP address in the URL bar.


05.2g: Cloud Datastore Gu
VM instances – Compute E
My Visitors
Not Secure
http://34.168.39.191
Relaunch to update
Fall 2024
Portland State Uni...
Canvas
Inbox (3) - agah@...
Dashboard
All Bookma
Guestbook
Sign here
Entries
ahmad <agah@pdx.edu>
signed on 2024-11-03 06:29:50.502619+00:00
Hello Compute Engine!!!
ahmad <agah@pdx.edu>
signed on 2024-11-03 05:53:51.099980+00:00
Hello Cloud Shell!
ahmad <agah@pdx.edu>
signed on 2024-11-03 04:53:40.249821+00:00
Hello Datastore
ahmad <agah>
signed on 2024-11-03 05:13:01.000080+00:00
hello Docker Datastore!

5.2.16. View the database

- Take a screenshot of all of the entries that have been added including their timestamps for your lab notebook.