Bradley Chang

5.1g Storage, IAM

2. GCP Cloud Storage #1 (USGS)

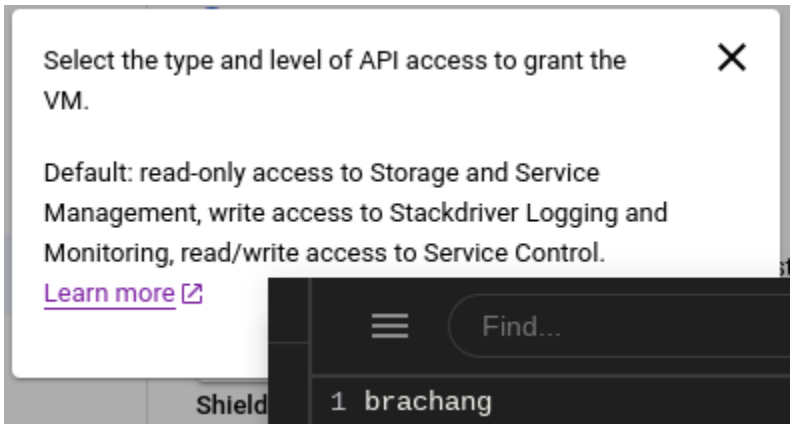
What role is attached to the Compute Engine default service account?

The editor role

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

Yes it should be sufficient.

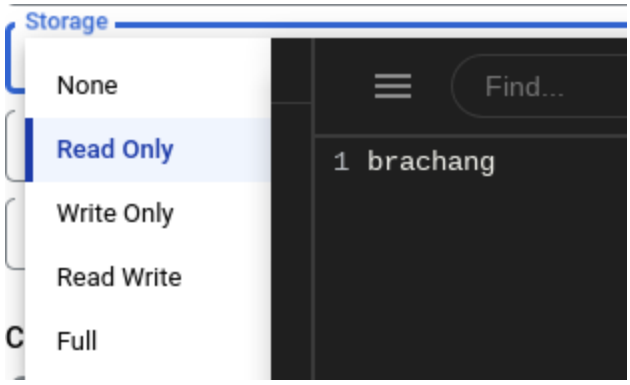
What permissions are given by the default access scope to Cloud Storage?



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

There's only read-only access to storage and service management so it's probably not sufficient enough for functions like creating buckets and reading/writing objects into them

What settings are possible for setting the VM's access to the Storage API?



4. USGS data and setup

What time did the latest earthquake happen?

On 2025-02-10T20:08:30.339Z

What was the magnitude (mag)?

Magnitude of 1.6

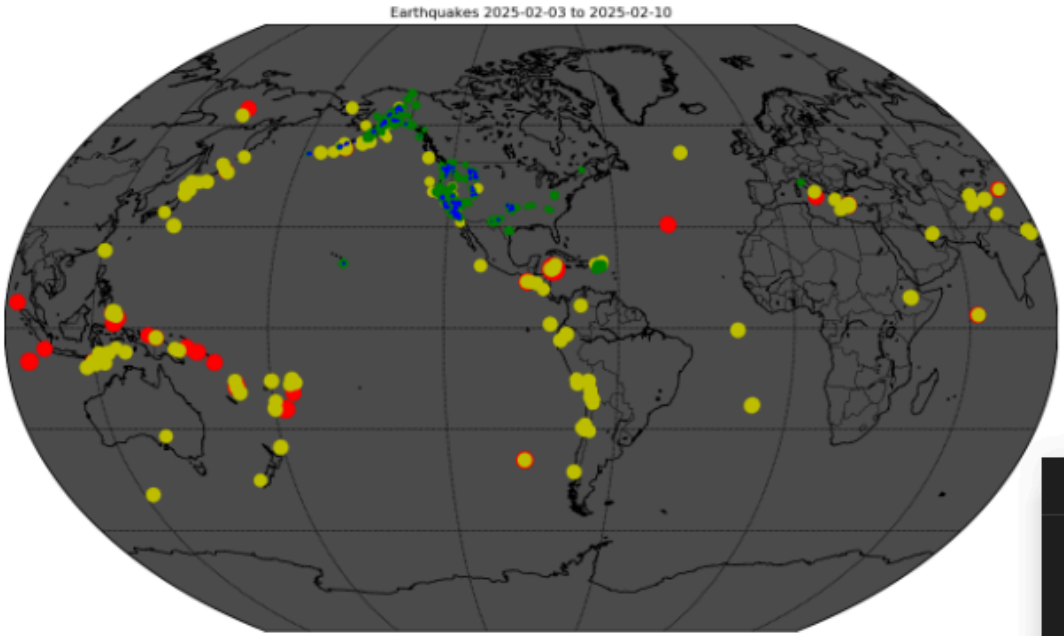
Where was the place it happened?

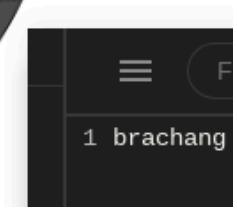
26 km WNW of Tyonek, Alaska

```
brachang@usgs:~/training-data-analyst/CPB100/lab2b$ head -2 earthquakes.csv
time,latitude,longitude,depth,mag,magType,nst,gap,dmin,rms,net,id,updated,place,type,horizontalError,depthE
rror,magError,magNst,status,locationSource,magSource
2025-02-10T20:08:30.339Z,61.1445,-151.5975,76.2,1.6,ml,,,,0.56,ak,ak0251w4zoex,2025-02-10T20:10:25.124Z,"26
 km WNW of Tyonek, Alaska",earthquake,,1,,,automatic,ak,ak
brachang@usgs:~/training-data-analyst/CPB100/lab2b$
```

5. Python plotting code

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





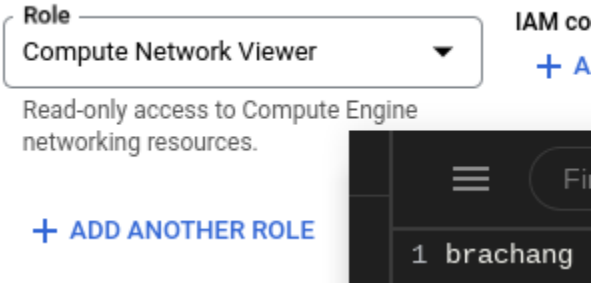
9. Service account roles (Compute)

What is the exact error message that is returned?

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

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

What role needs to be added to the service account's permissions for the VM to have access to list the project's Compute Engine resources?



Take a screenshot of the output for your notebook.

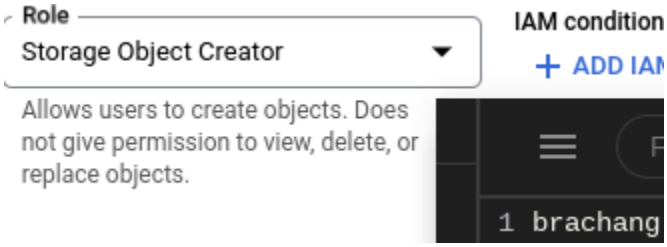
```
brachang@gcs-lab-vm:~$ gcloud compute instances list
NAME        ZONE        MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP    STATUS
course-vm   us-west1-b  e2-medium                  10.138.0.2                  TERMINATED
gcs-lab-vm  us-west1-b  e2-medium                  10.138.0.15  34.127.43.157  RUNNING
usgs        us-west1-b  e2-medium                  10.138.0.14  34.145.32.116  RUNNING
brachang@gcs-lab-vm:~$
```

10. Service account roles (Storage)

What is the exact error message that is returned?

```
brachang@gcs-lab-vm:~$ gsutil cp moonquakes.png gs://earthquake-data
Copying file://moonquakes.png [Content-Type=image/png]...
AccessDeniedException: 403 gcs-lab@cloud-chang-brachang.iam.gserviceaccount.com does not have storage.objec
ts.create access to the Google Cloud Storage object. Permission 'storage.objects.create' denied on resource
 (or it may not exist).
brachang@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?

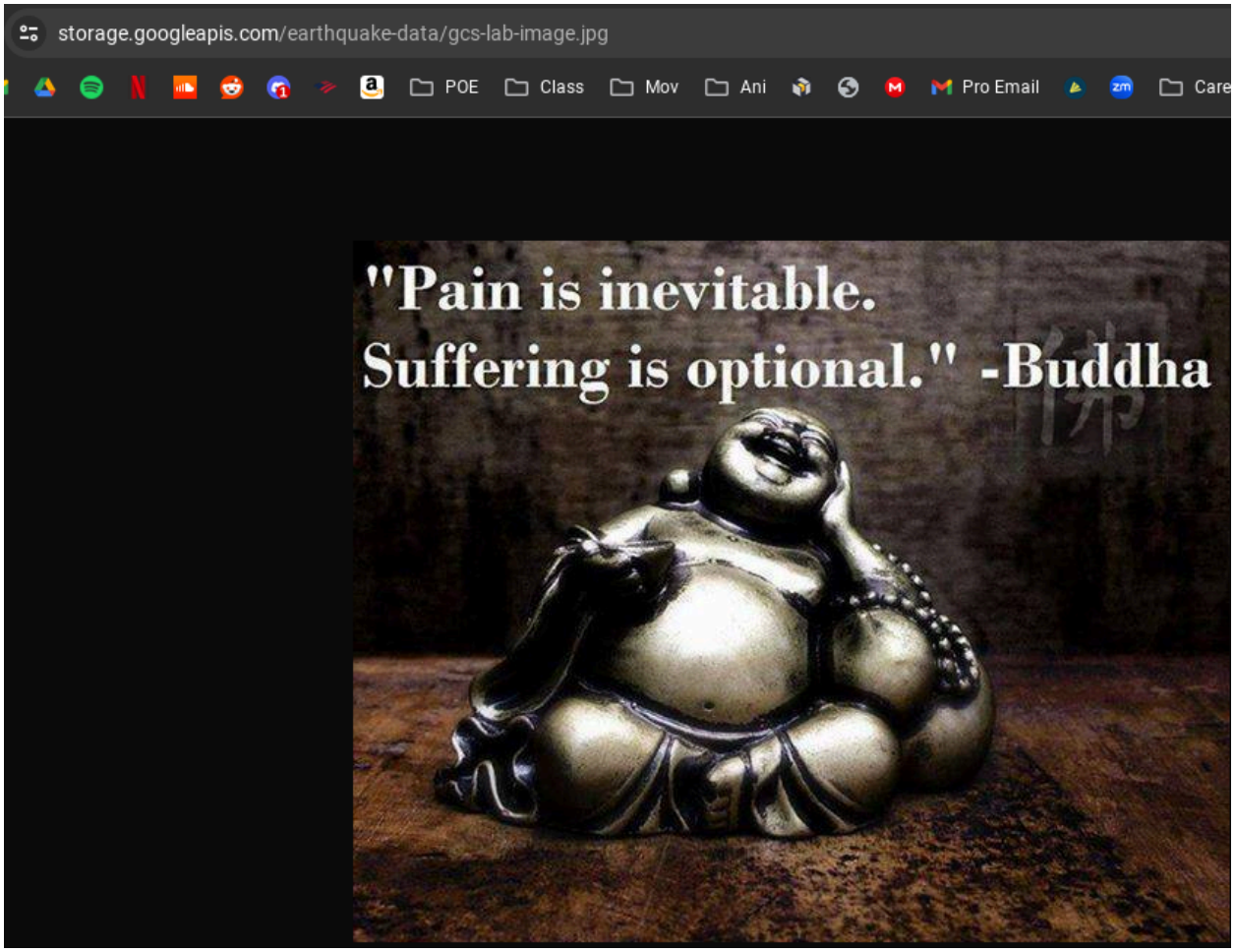


Take a screenshot of the output for your notebook.

```
brachang@gcs-lab-vm:~$ gsutil cp moonquakes.png gs://earthquake-data
Copying file://moonquakes.png [Content-Type=image/png]...
/ [1 files][315.4 KiB/315.4 KiB]
Operation completed over 1 objects/315.4 KiB.
brachang@gcs-lab-vm:~$
```

13. View object

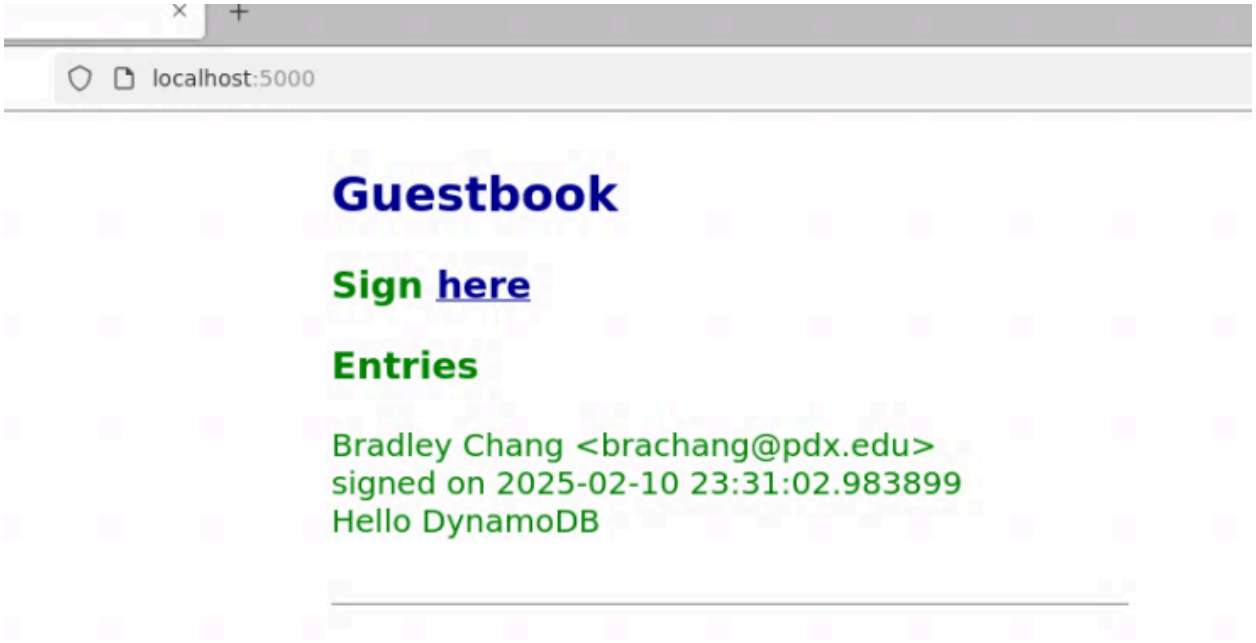
Take a screenshot the shows the entire URL and the image that has been retrieved:


storage.googleapis.com/earthquake-data/gcs-lab-image.jpg
POE
Class
Mov
Ani
Pro Email
"Pain is inevitable.
Suffering is optional." -Buddha

5.2a DynamoDB Guestbook

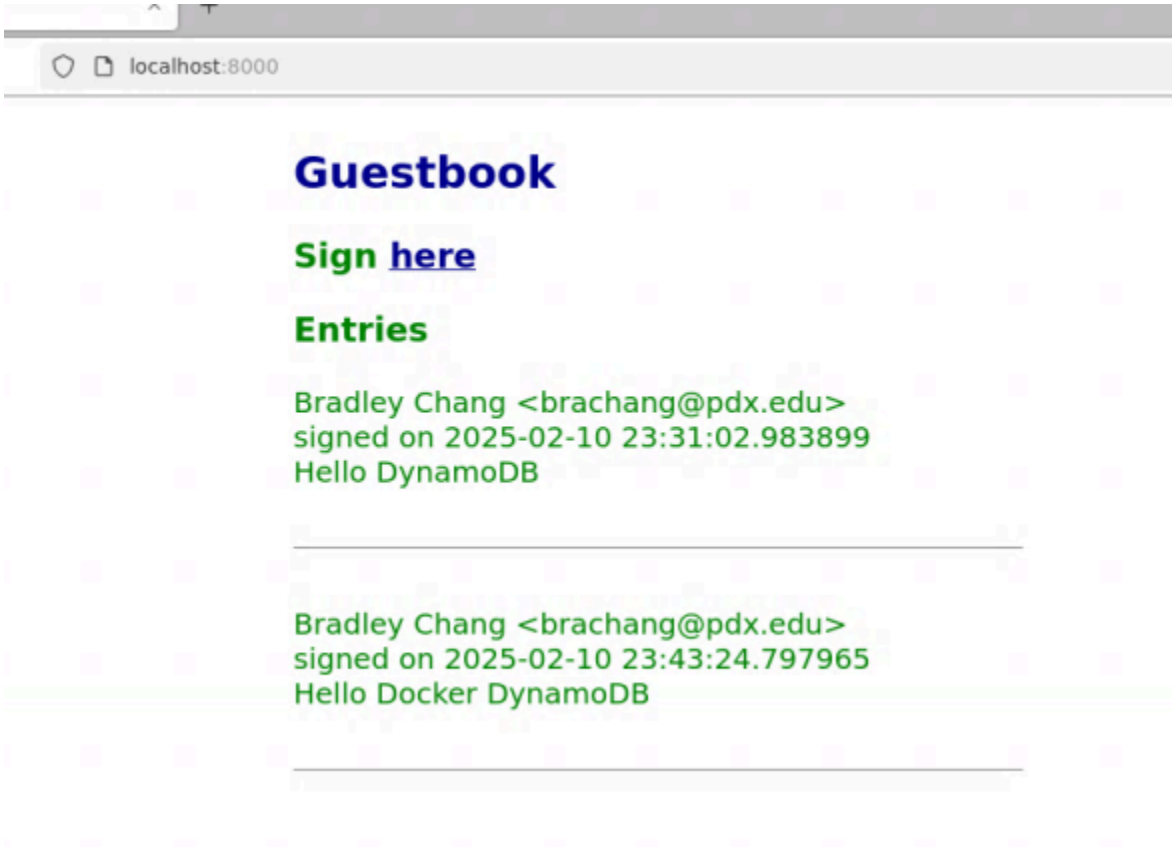
5. Run the application

Take a screenshot of the output for your lab notebook.



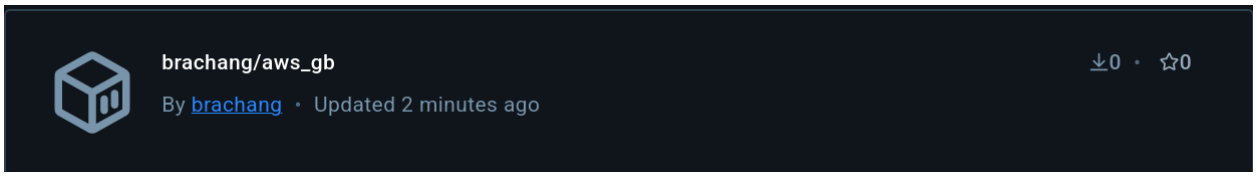
7. Run the application

Take a screenshot of the output for your lab notebook.



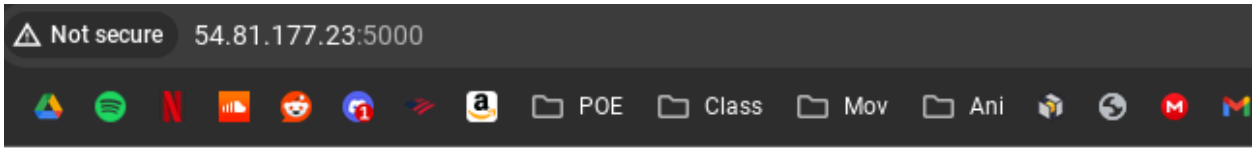
8. Push the container image

Take a screenshot of the container image on DockerHub.



11. Run the application

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



Guestbook

Sign here

Entries

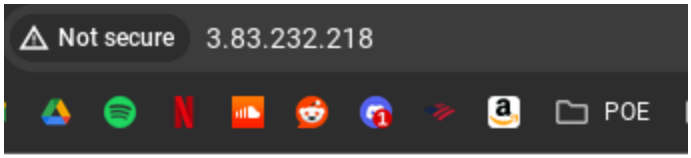
Bradley Chang <brachang@pdx.edu>
signed on 2025-02-10 23:31:02.983899
Hello DynamoDB

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-10 23:43:24.797965
Hello Docker DynamoDB

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 00:21:01.362325
Hello Cloud9!

15. Visit the application

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



Guestbook

Sign here

Entries

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-10 23:31:02.983899
Hello DynamoDB

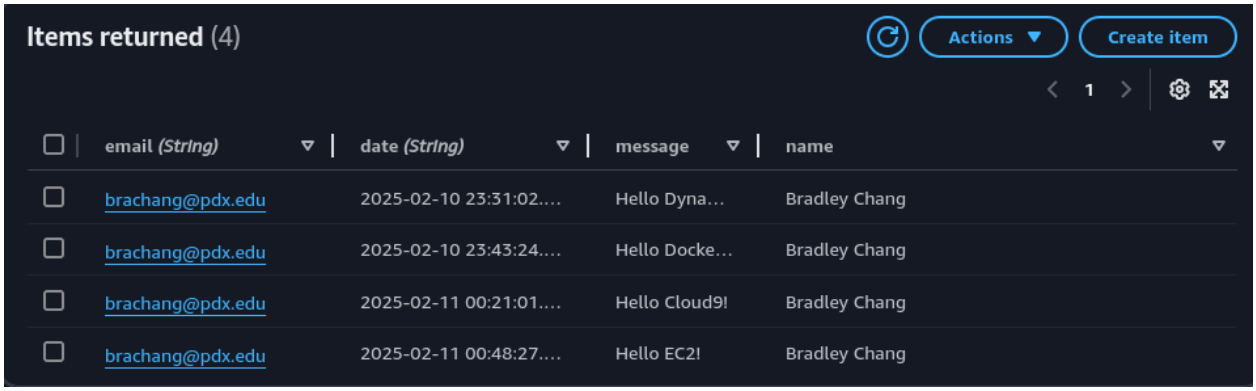
Bradley Chang <brachang@pdx.edu>
signed on 2025-02-10 23:43:24.797965
Hello Docker DynamoDB

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 00:21:01.362325
Hello Cloud9!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 00:48:27.094863
Hello EC2!

16. View the database

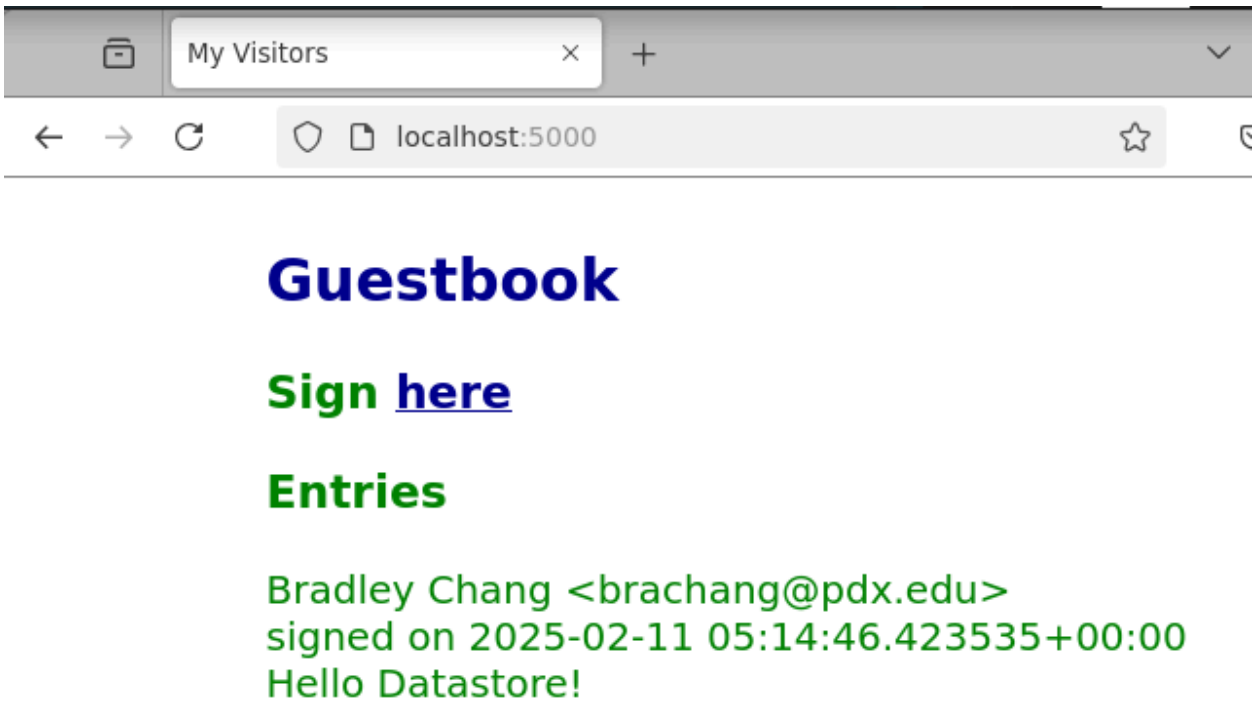
Take a screenshot that shows all of the guestbook entries that you added to the DynamoDB table including their timestamps.



5.2g Cloud Datastore Guestbook

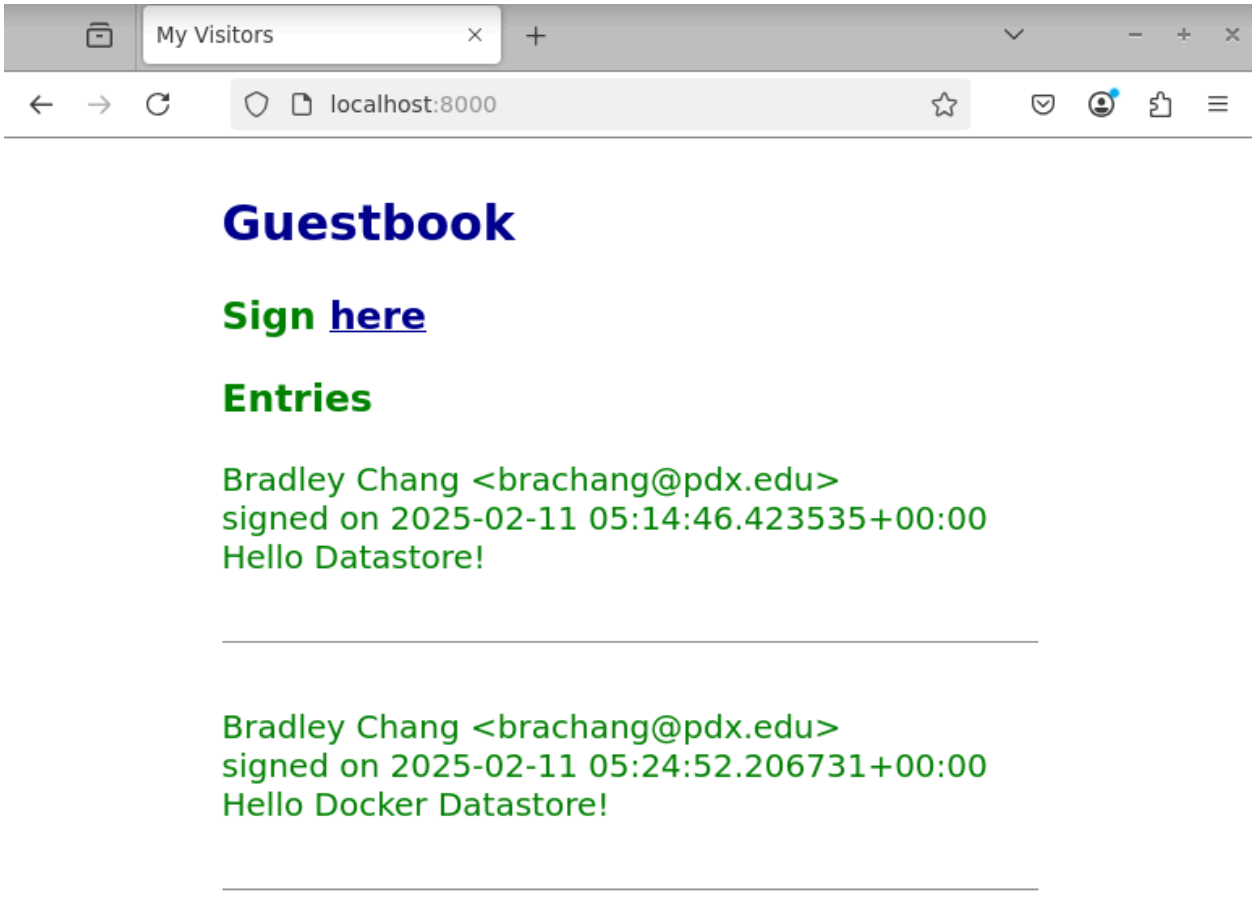
7. Run the application

Take a screenshot of the output for your lab notebook.



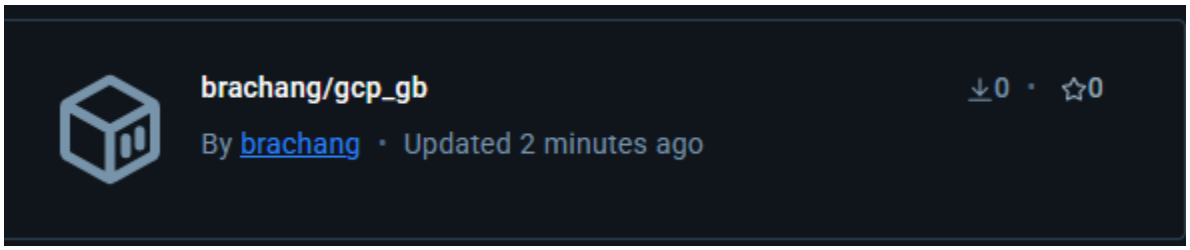
9. Run the application

Take a screenshot of the output for your lab notebook.



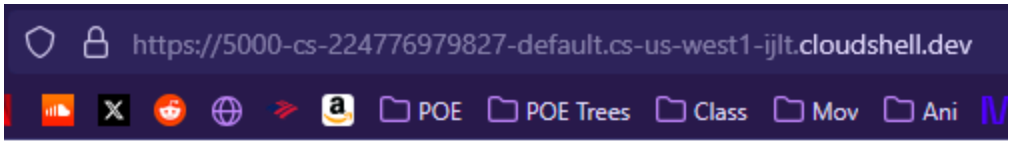
10. Push the container image

Take a screenshot of the container image on DockerHub.



12. Run the application

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



Guestbook

Sign here

Entries

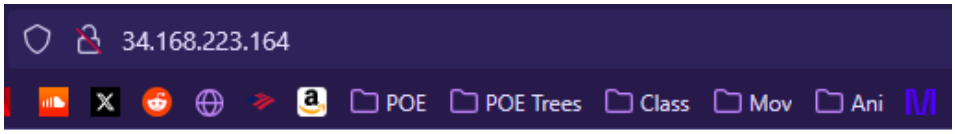
Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:14:46.423535+00:00
Hello Datastore!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:41:12.016337+00:00
Hello Cloud Shell!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:24:52.206731+00:00
Hello Docker Datastore!

15. Visit the application

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



Guestbook

Sign here

Entries

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:14:46.423535+00:00
Hello Datastore!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:41:12.016337+00:00
Hello Cloud Shell!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 05:24:52.206731+00:00
Hello Docker Datastore!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-11 06:01:22.416517+00:00
Hello Compute Engine!

16. View the database

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

Name/ID	date	email	message	name
id=5634161670881280	February 10, 2025 at 9:14:46.423 PM UTC-8	brachang@pdx.edu	Hello Datastore!	Bradley Chang
id=5644004762845184	February 10, 2025 at 9:41:12.016 PM UTC-8	brachang@pdx.edu	Hello Cloud Shell!	Bradley Chang
id=5700433016258560	February 10, 2025 at 9:24:52.206 PM UTC-8	brachang@pdx.edu	Hello Docker Datastore!	Bradley Chang
id=5710353417633792	February 10, 2025 at 10:01:22.416 PM UTC-8	brachang@pdx.edu	Hello Compute Engine!	Bradley Chang