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# Lab 05.1g

## 2. GCP Cloud Storage #1 (USGS)

### Permissions via service accounts

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

[GRANT ACCESS](#) [REMOVE ACCESS](#)

**Filter** Enter property name or value

Type	Principal ↑	Name	Role	Security insights
<input type="checkbox"/>	476698362318-compute@developer.gserviceaccount.com	Compute Engine default service account	Editor	7978/7980 excess permissions
<input type="checkbox"/>	nbui@pdx.edu	Nathan Bui	Owner	8934/9113 excess permissions

- Would it be sufficient for the VM to perform its functions (i.e. creating buckets and reading/writing objects in them)? No, it only has create/delete/list permissions and lacks write permissions

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cloud-bui-nbui Search (/) for resources, docs, products, and more

← Editor EDIT ROLE CREATE FROM ROLE

- stackdriver.resourceMetadata.write
- storage.buckets.create
- storage.buckets.delete
- storage.buckets.list
- storage.buckets.listEffectiveTags
- storage.buckets.listTagBindings
- storage.hmacKeys.create
- storage.hmacKeys.delete
- storage.hmacKeys.get

## Permissions via access scopes

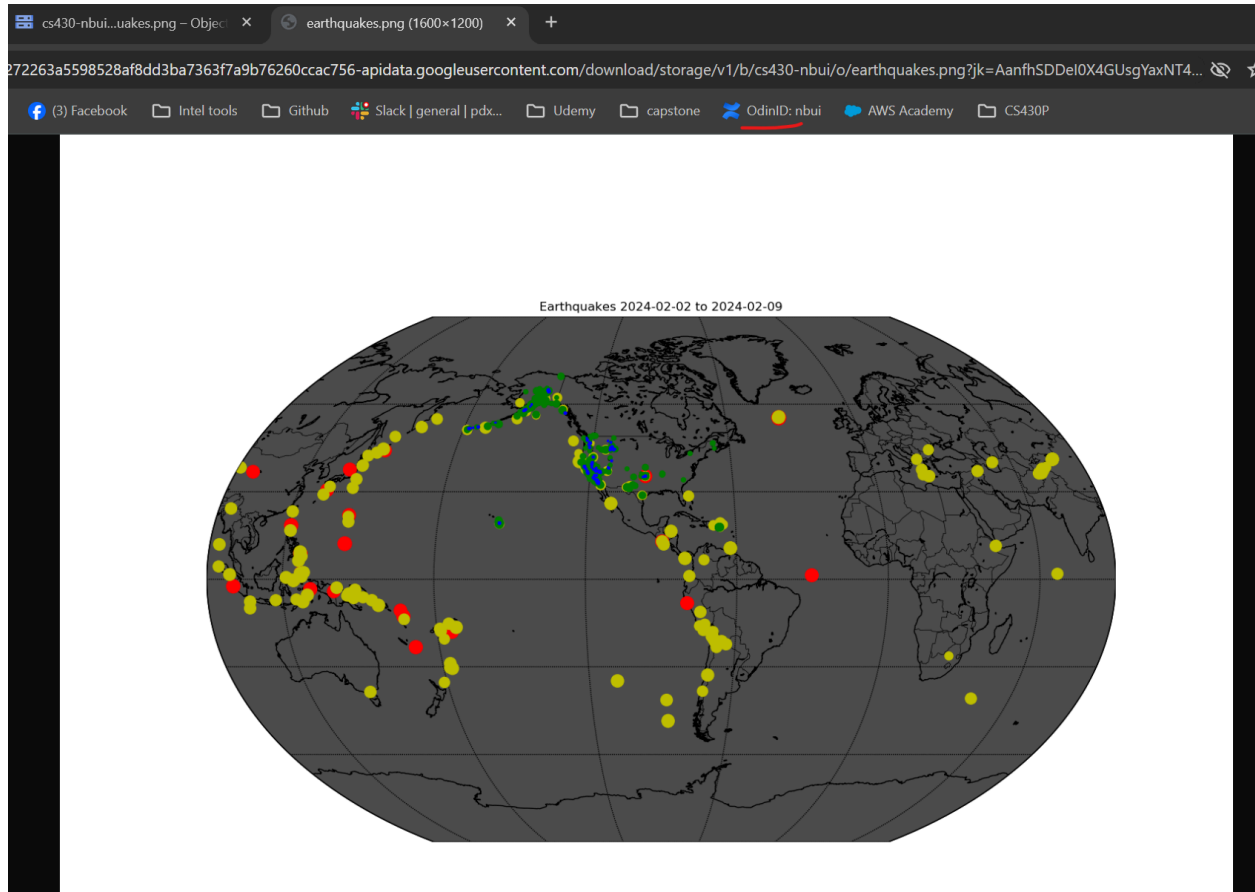
- What permissions are given by the default access scope to Cloud Storage?
  - read-only access to Storage and Service Management, write access to Stackdriver Logging and Monitoring, read/write access to Service Control.
- Would they be sufficient for the VM to perform its functions (i.e. creating buckets and reading/writing objects in them)?
  - No, they only have the read-only access to the storage
- What settings are possible for setting the VM's access to the Storage API?
  - Full access for Storage permissions since we need to create it and be able to read/write from/to it.

## 4. USGS data and setup

- What **time** did the latest earthquake happen?
  - 2024-02-09T05:27:13.440Z
- What was the magnitude (**mag**)?
  - 2.22000003
- Where was the **place** it happened?
  - 1 km NE of PÄ hala, Hawaii

## 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?
  - ERROR: (gcloud.compute.instances.list) Some requests did not succeed:
  - - Required 'compute.instances.list' permission for 'projects/cloud-bui-nbui'
- 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?
  - Compute viewer
- Take a screenshot of the output for your notebook.

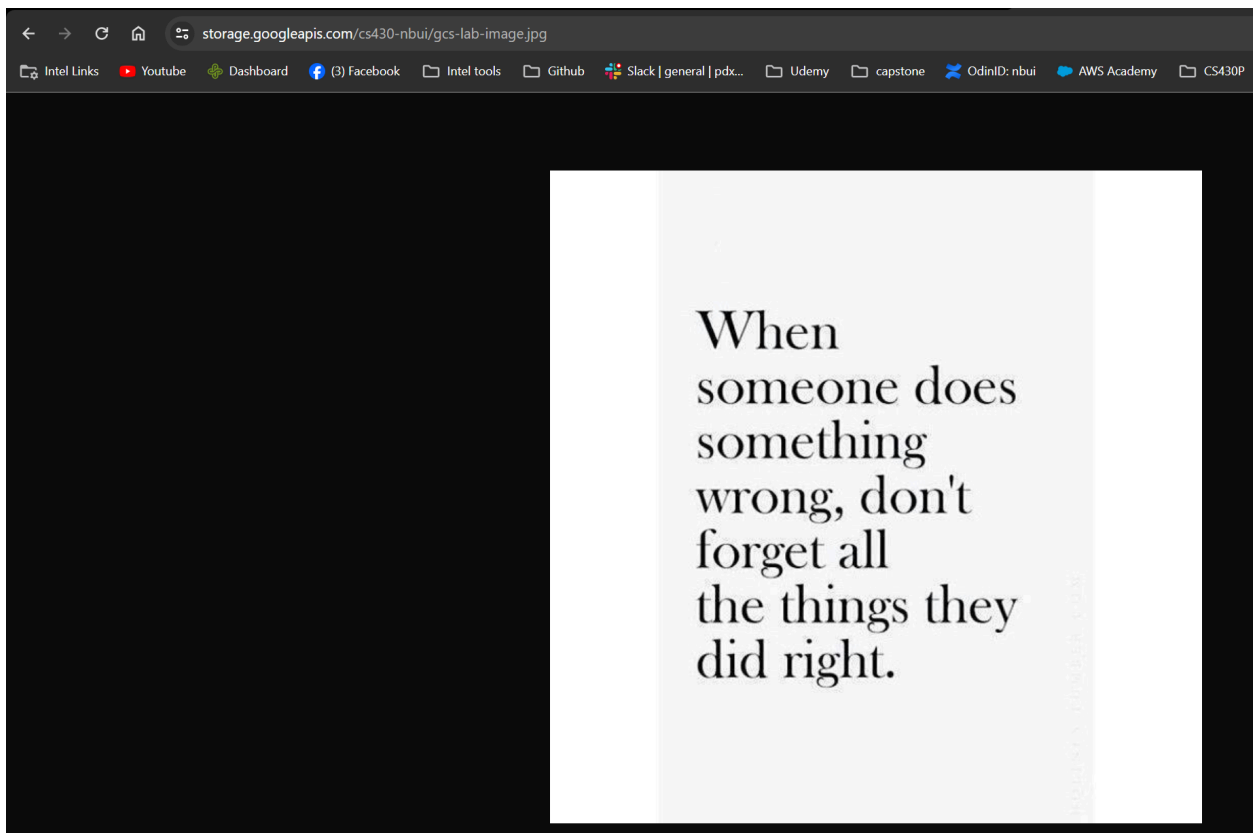
```
nbui@gcs-lab-vm:~$ gcloud compute instances list
NAME          ZONE          MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP  STATUS
course-vm     us-west1-b    e2-medium     false        10.138.0.2   35.230.7.225  TERMINATED
gcs-lab-vm    us-west1-b    e2-medium     false        10.138.0.11  34.127.19.84  RUNNING
usgs          us-west1-b    e2-medium     false        10.138.0.10  35.230.7.225  RUNNING
```

## 10. Service account roles (Storage)

- What is the exact error message that is returned?
  - AccessDeniedException: 403 gcs-lab@cloud-bui-nbui.iam.gserviceaccount.com does not have storage.objects.create access to the Google Cloud Storage object.  
Permission 'storage.objects.create' denied on resource (or it may not exist).
- 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?
  - Storage object creator
- Take a screenshot of the output for your notebook.

```
nbui@gcs-lab-vm:~$ gsutil cp moonquakes.png gs://cs430-nbui
Copying file://moonquakes.png [Content-Type=image/png]...
/ [1 files][314.8 KiB/314.8 KiB]
Operation completed over 1 objects/314.8 KiB.
nbui@gcs-lab-vm:~$
```

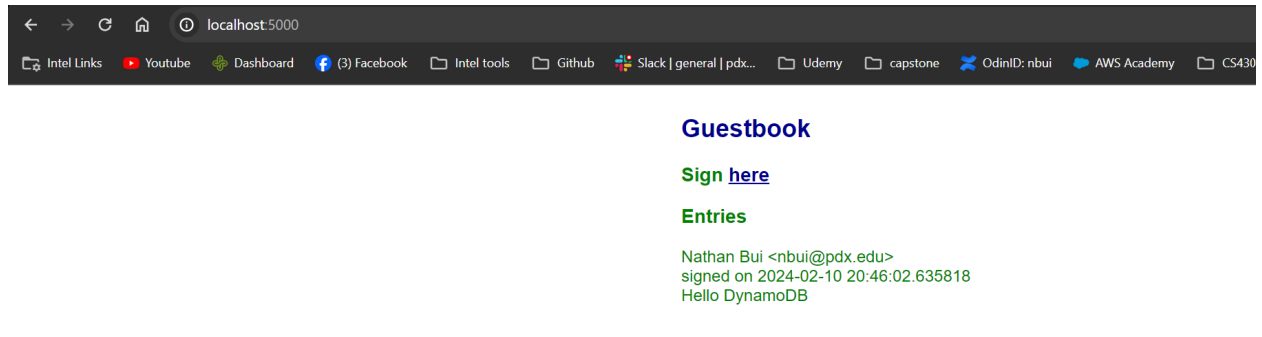
## 13. View object



# Lab 05.2a

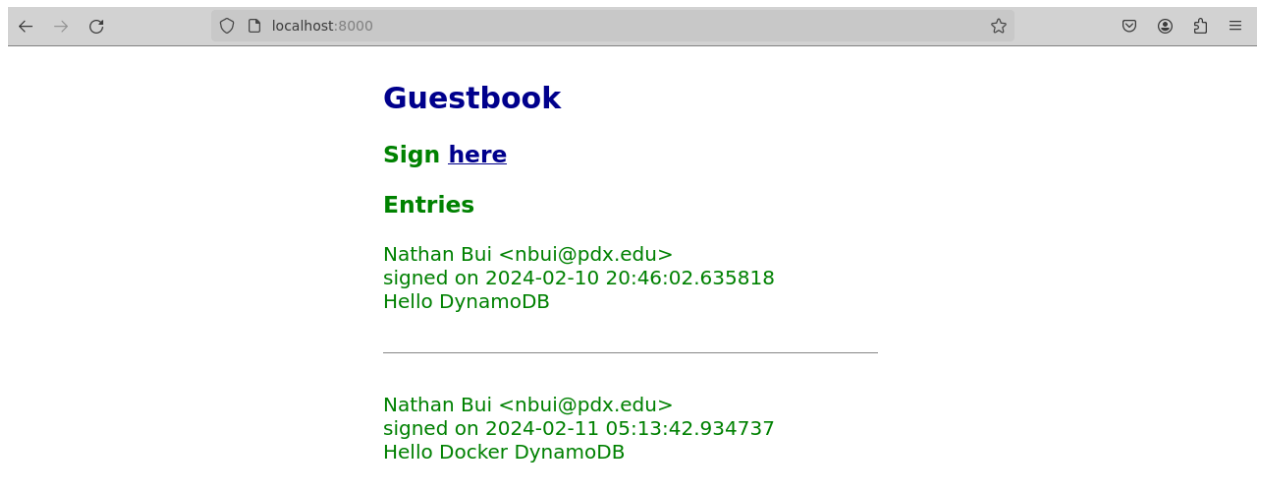
## 5. Run the application

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



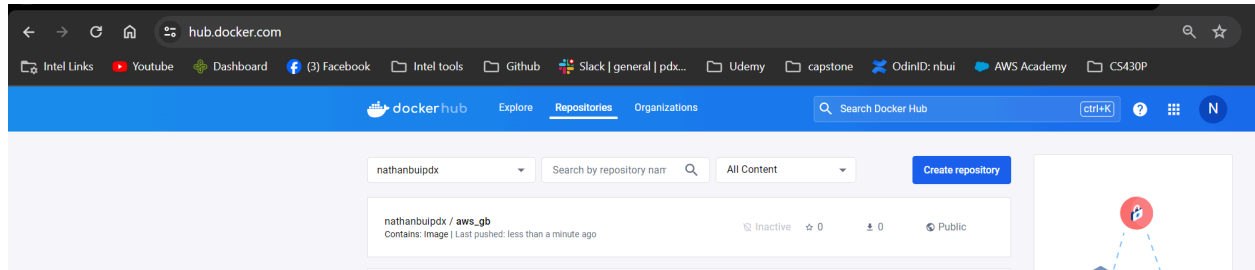
## 7. Run the application

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



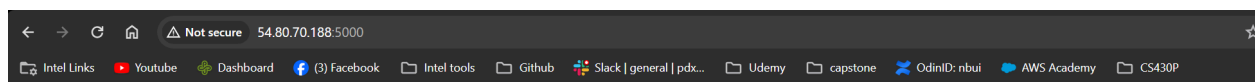
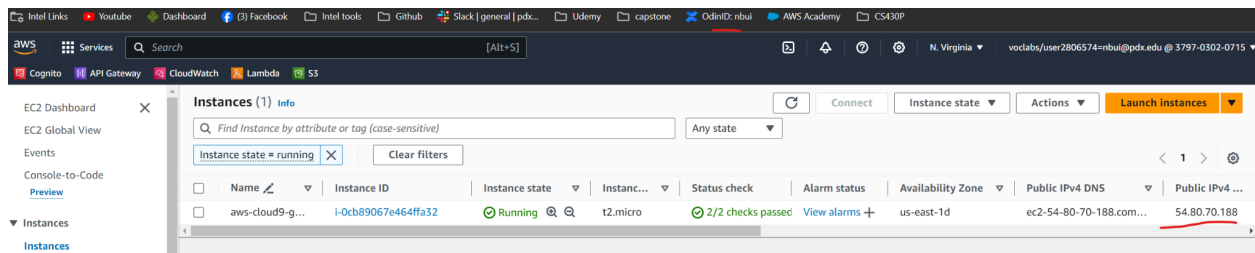
## 8. Push the container image

- 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](#)

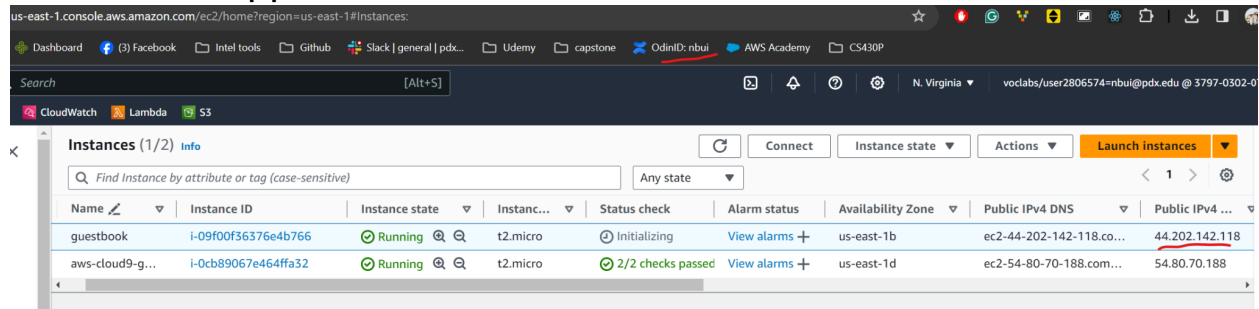
#### Entries

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-10 20:46:02.635818  
Hello DynamoDB

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-11 05:13:42.934737  
Hello Docker DynamoDB

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-11 05:37:30.989357  
Hello Cloud9!

## 15. Visit the application



### Guestbook

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#### Entries

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-10 20:46:02.635818  
Hello DynamoDB

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 05:13:42.934737  
Hello Docker DynamoDB

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 05:37:30.989357  
Hello Cloud9!

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 05:49:58.921649  
Hello EC2!



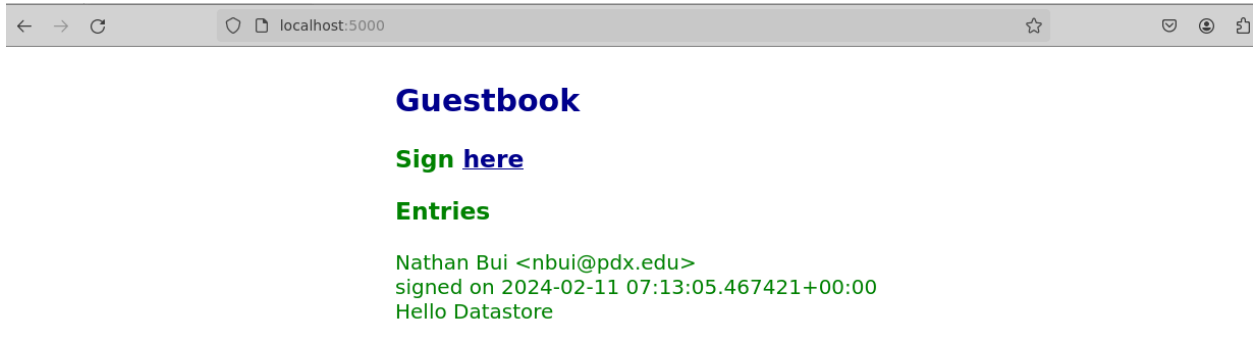
## 16. View the database

The screenshot shows the AWS Management Console for DynamoDB. The left sidebar contains navigation links for Dashboard, Tables, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, and Settings. The main area displays the 'Scan' interface for the 'guestbook' table. The 'Scan' tab is selected, and the 'Table - guestbook' is chosen. The 'Select attribute projection' dropdown is set to 'All attributes'. A 'Run' button is visible. Below the 'Run' button, a green status bar indicates 'Completed. Read capacity units consumed: 0.5'. The 'Items returned (4)' section shows a table with 4 rows of data.

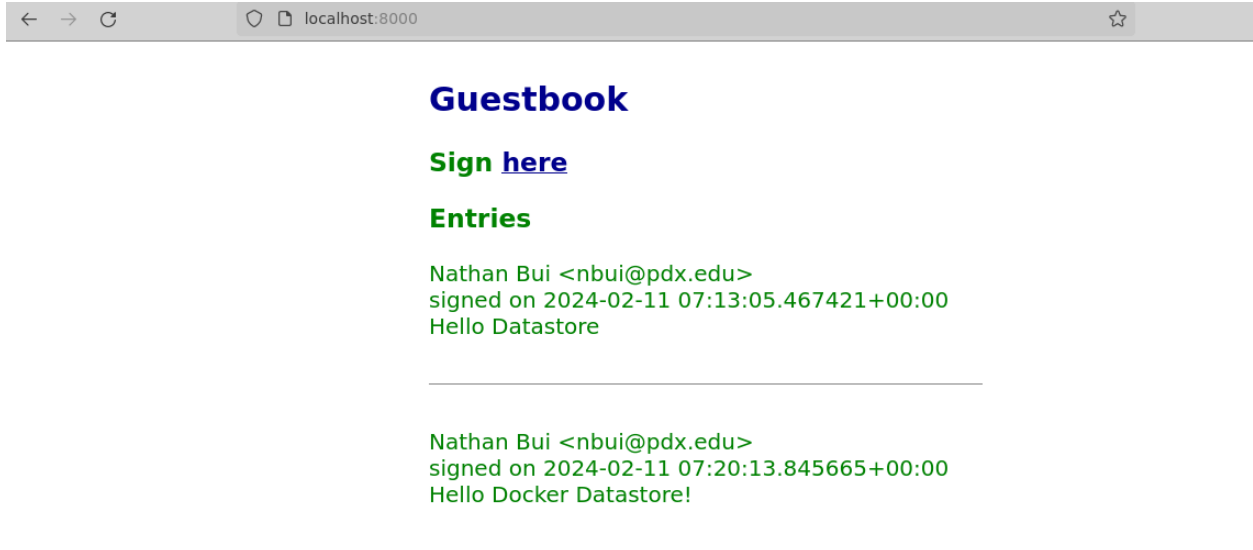
	email (String)	date (String)	message	name
<input type="checkbox"/>	<a href="mailto:nbui@pdx.edu">nbui@pdx.edu</a>	2024-02-10 20:46:02...	Hello Dyna...	Nathan Bui
<input type="checkbox"/>	<a href="mailto:nbui@pdx.edu">nbui@pdx.edu</a>	2024-02-11 05:13:42...	Hello Docke...	Nathan Bui
<input type="checkbox"/>	<a href="mailto:nbui@pdx.edu">nbui@pdx.edu</a>	2024-02-11 05:37:30...	Hello Cloud9!	Nathan Bui
<input type="checkbox"/>	<a href="mailto:nbui@pdx.edu">nbui@pdx.edu</a>	2024-02-11 05:49:58...	Hello EC2!	Nathan Bui

# Lab 05.2g

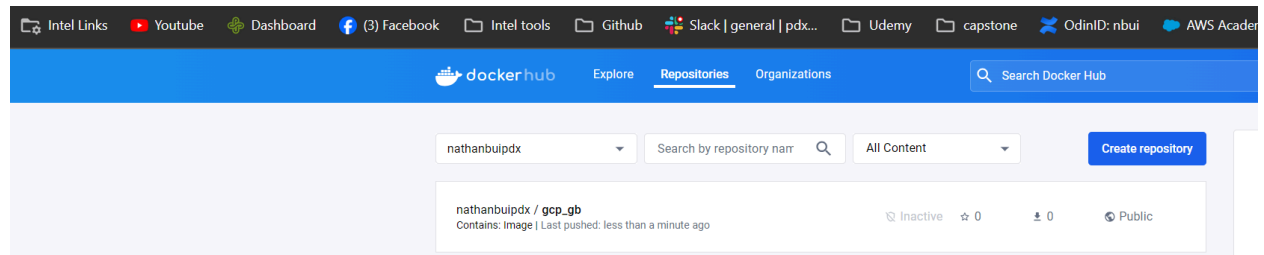
## 7. Run the application



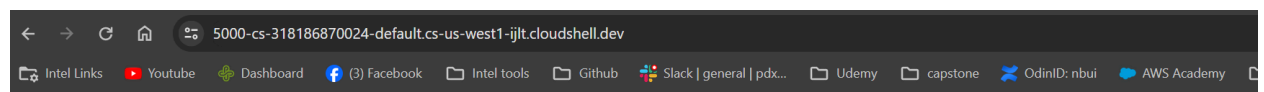
## 9. Run the application



## 10. Push the container image



## 12. Run the application



### Guestbook

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#### Entries

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-11 07:26:03.253367+00:00  
Hello Cloud Shell!

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-11 07:13:05.467421+00:00  
Hello Datastore

Nathan Bui <nui@pdx.edu>  
signed on 2024-02-11 07:20:13.845665+00:00  
Hello Docker Datastore!

## 15. Visit the application

**Guestbook**

[Sign here](#)

**Entries**

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 07:26:03.253367+00:00  
Hello Cloud Shell!

---

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 07:13:05.467421+00:00  
Hello Datastore

---

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 07:20:13.845665+00:00  
Hello Docker Datastore!

---

Nathan Bui <nbui@pdx.edu>  
signed on 2024-02-11 07:32:05.814840+00:00  
Hello Compute Engine!

---

## 16. View the database

Query results

<input type="checkbox"/>	Name/ID ↑	date	email	message	name
<input type="checkbox"/>	<a href="#">id=5632499082330112</a>	February 10, 2024 at 11:26:03.253 PM UTC-8	nbui@pdx.edu	Hello Cloud Shell!	Nathan Bui
<input type="checkbox"/>	<a href="#">id=5634161670881280</a>	February 10, 2024 at 11:13:05.467 PM UTC-8	nbui@pdx.edu	Hello Datastore	Nathan Bui
<input type="checkbox"/>	<a href="#">id=5644004762845184</a>	February 10, 2024 at 11:20:13.845 PM UTC-8	nbui@pdx.edu	Hello Docker Datastore!	Nathan Bui
<input type="checkbox"/>	<a href="#">id=5710353417633792</a>	February 10, 2024 at 11:32:05.814 PM UTC-8	nbui@pdx.edu	Hello Compute Engine!	Nathan Bui