

Lab 05

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CS530: Internet Web & Cloud, Fall 2023

Odin: srimel

** In all the terminal screenshots my Odin name is in the terminal prompt **

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5.1g: Storage, IAM

5.1.1: GCP Cloud Storage #1

1. The 'Editor' role is the default role assigned to the 'Compute Engine default service account'.
2. I'm not exactly sure if this default role is sufficient enough since I don't have storage account currently created. My guess is that I would have to configure the storage

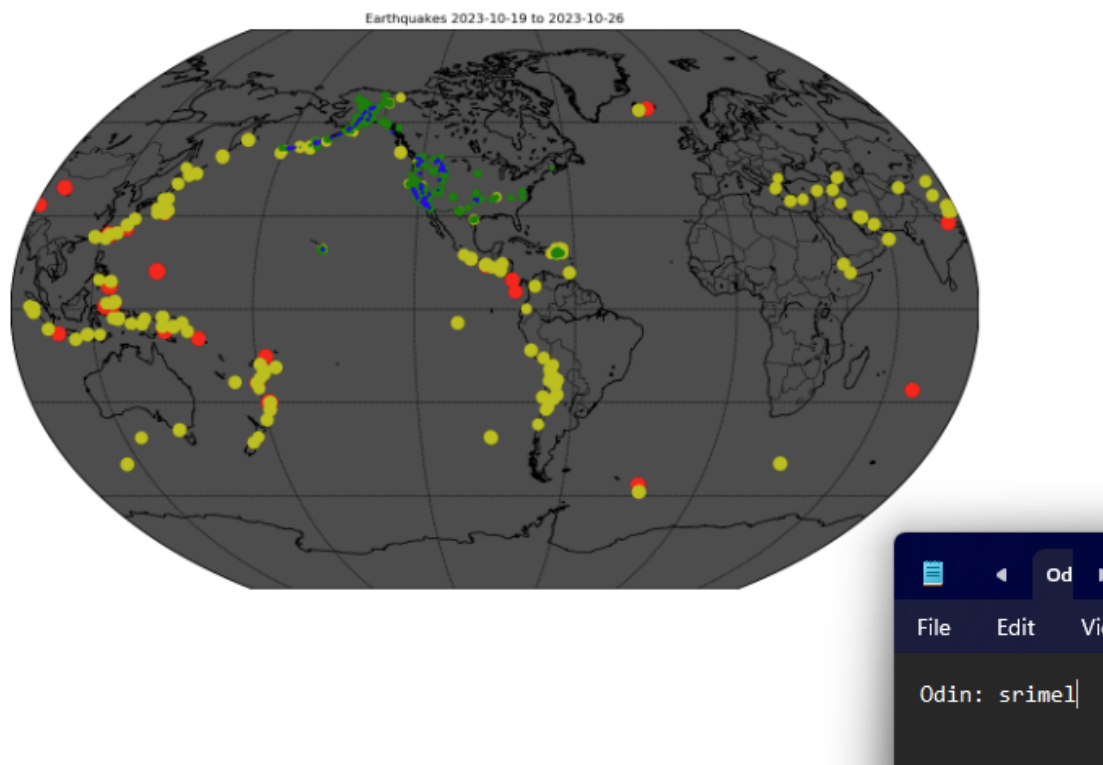
account to use this service principal and then it might work. I'm not sure about creating buckets, but I think it might be able to read/write into them?

3. Default: read-only access to Storage and Service Management, write access to Stackdriver Logging and Monitoring, read/write access to Service Control.
4. No these permissions would not be sufficient for the VM to perform its function of creating buckets and reading/writing object in them. It looks like it can only read buckets with default access scope.
5. Possible settings for storage scope: None, Read Only, Write Only, Read Write, Full

5.1.4: USGS data and setup

1. Last earthquake was at 10/26/2023 at 3:06am UTC
2. The magnitude was 1.24
3. Location: 15 km NE of Little Lake, CA

5.1.5: Python plotting code



5.1.9: Service account roles (Compute)

```
srinel@gcs-lab-vm:~$ gcloud compute instances list
ERROR: (gcloud.compute.instances.list) Some requests did not succeed:
- Required 'compute.instances.list' permission for 'projects/cloud-rimel-srinel'

srinel@gcs-lab-vm:~$
```

Error: (gcloud.compute.instances.list) Some requests did not succeed:
- Required 'compute.instances.list' permission for 'projects/cloud-rimel-srinel'

The role 'Compute Viewer' will allow the VM to have access to list the project's compute engine instances.

```
srinel@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
gcs-lab-vm    us-west1-b  e2-medium      10.138.0.15  34.168.239.171  RUNNING
usgs          us-west1-b  e2-medium      10.138.0.14  TERMINATED
```

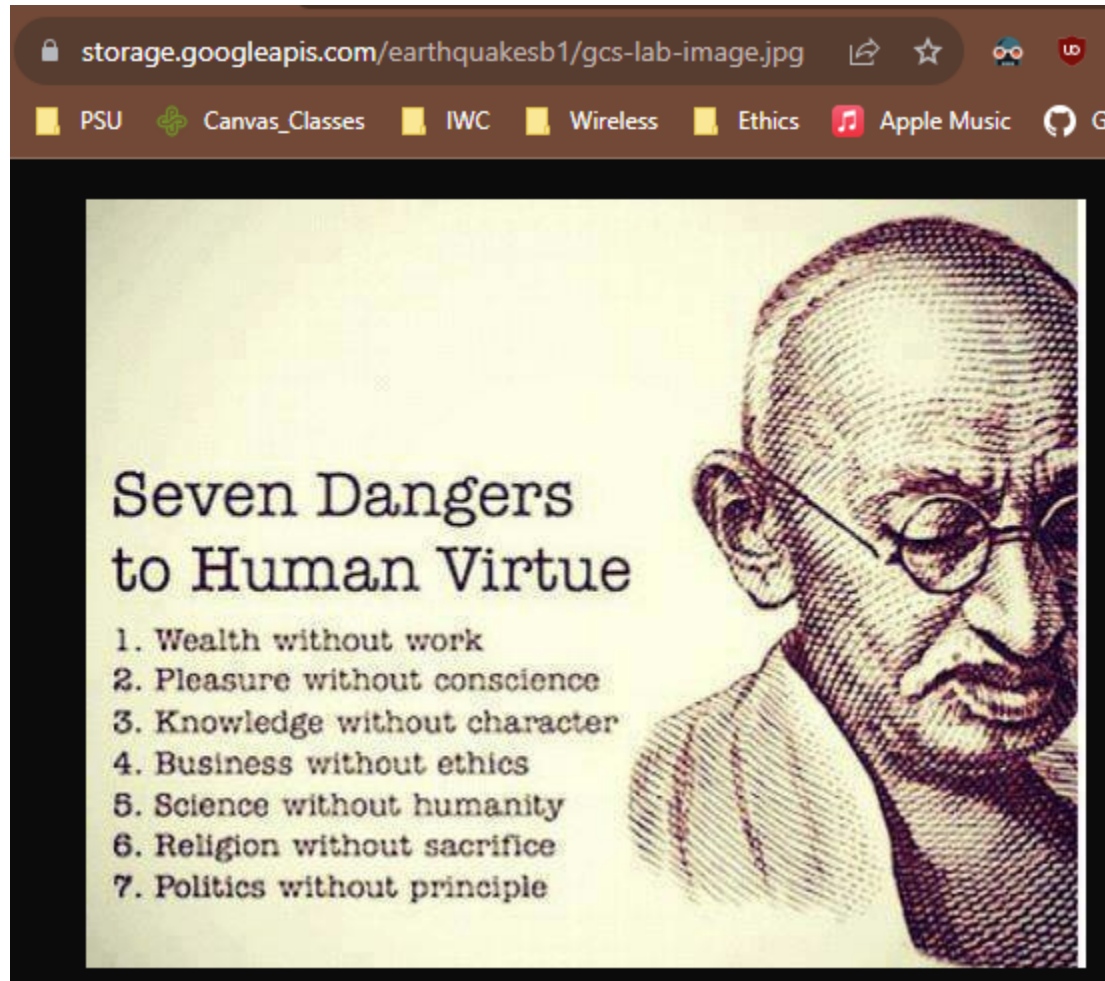
5.1.10: Service account roles (Storage)

```
srinel@gcs-lab-vm-2:~$ gsutil cp moonquakes.png gs://earthquakesb1
Copying file://moonquakes.png [Content-Type=image/png]...
AccessDeniedException: 403 gcs-lab@cloud-rimel-srinel.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).
srinel@gcs-lab-vm-2:~$
```

1. Error is AccessDeniedException: 403
gcs-lab@cloud-rimel-srinel.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)
2. Storage Object Viewer role will allow adding a new object to the storage bucket.

```
srinel@gcs-lab-vm-2:~$ gsutil cp moonquakes.png gs://earthquakesb1
Copying file://moonquakes.png [Content-Type=image/png]...
/ [1 files][316.2 KiB/316.2 KiB]
Operation completed over 1 objects/316.2 KiB.
srinel@gcs-lab-vm-2:~$
```

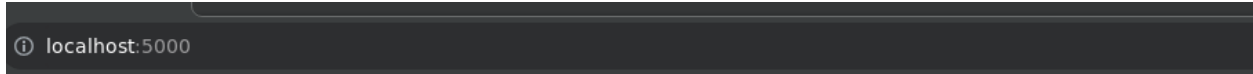
5.1.13: View Object



Oops, I forgot to include my odinId on this one and I already did the entire cleanup stage.
Odin: srimeI

5.2a: DynamoDB Guestbook

5.2a.5: Run the application



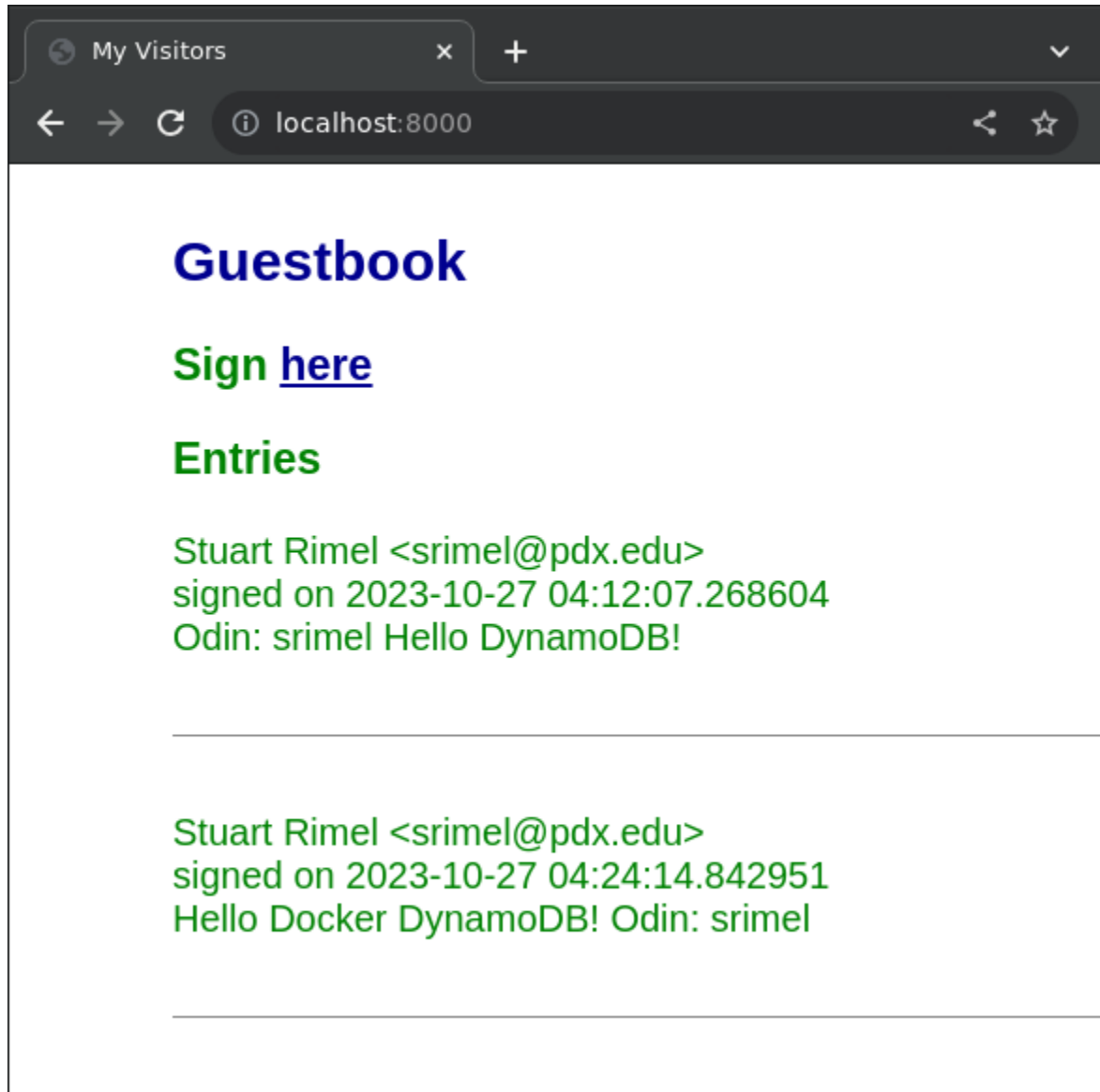
Guestbook

Sign [here](#)


Entries

Stuart Rimel <srime1@pdx.edu>
signed on 2023-10-27 04:12:07.268604
Odin: srime1 Hello DynamoDB!

5.2a.7: Run the application



5.2a.8: Push the container image

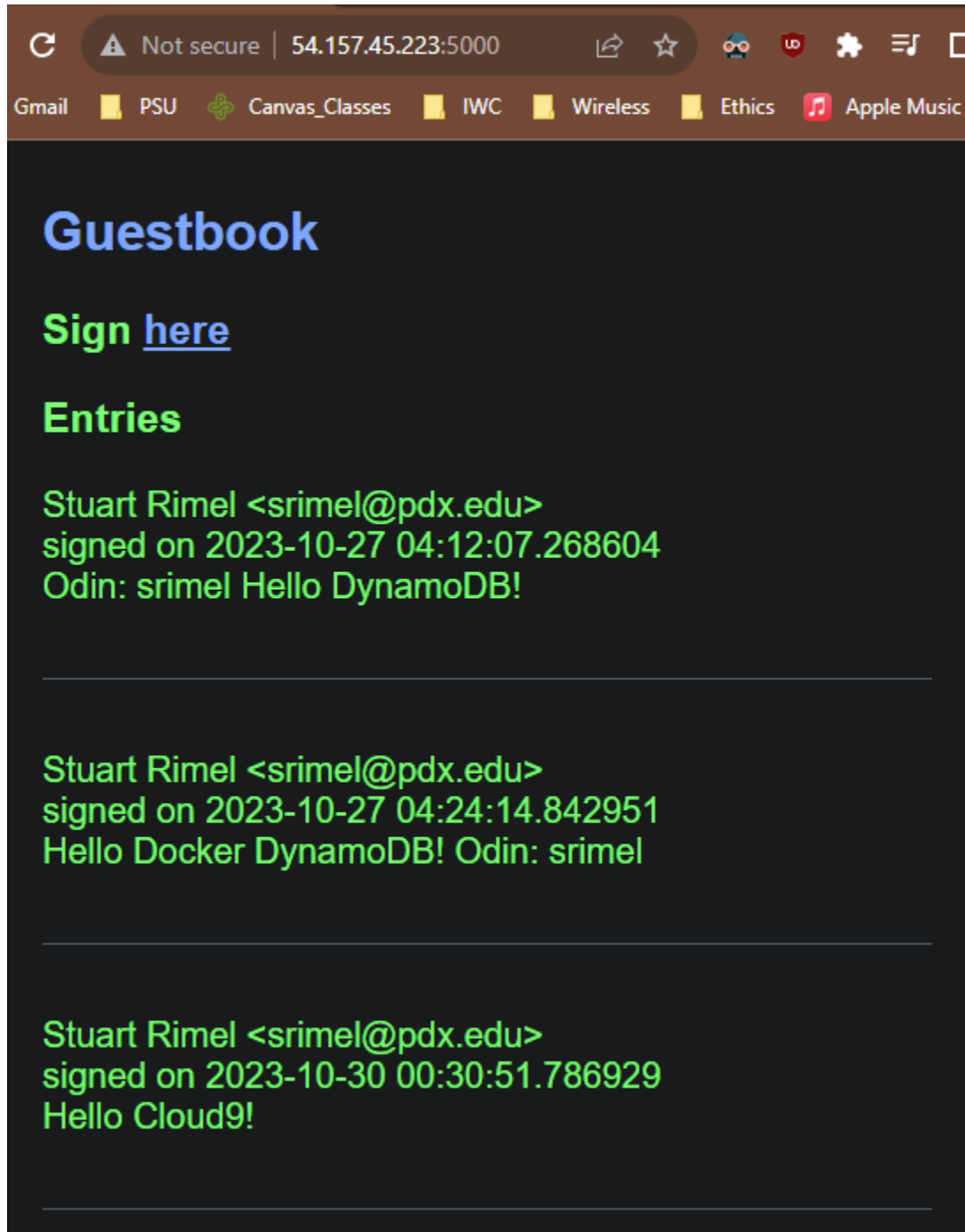


srinel/aws_gb:latest

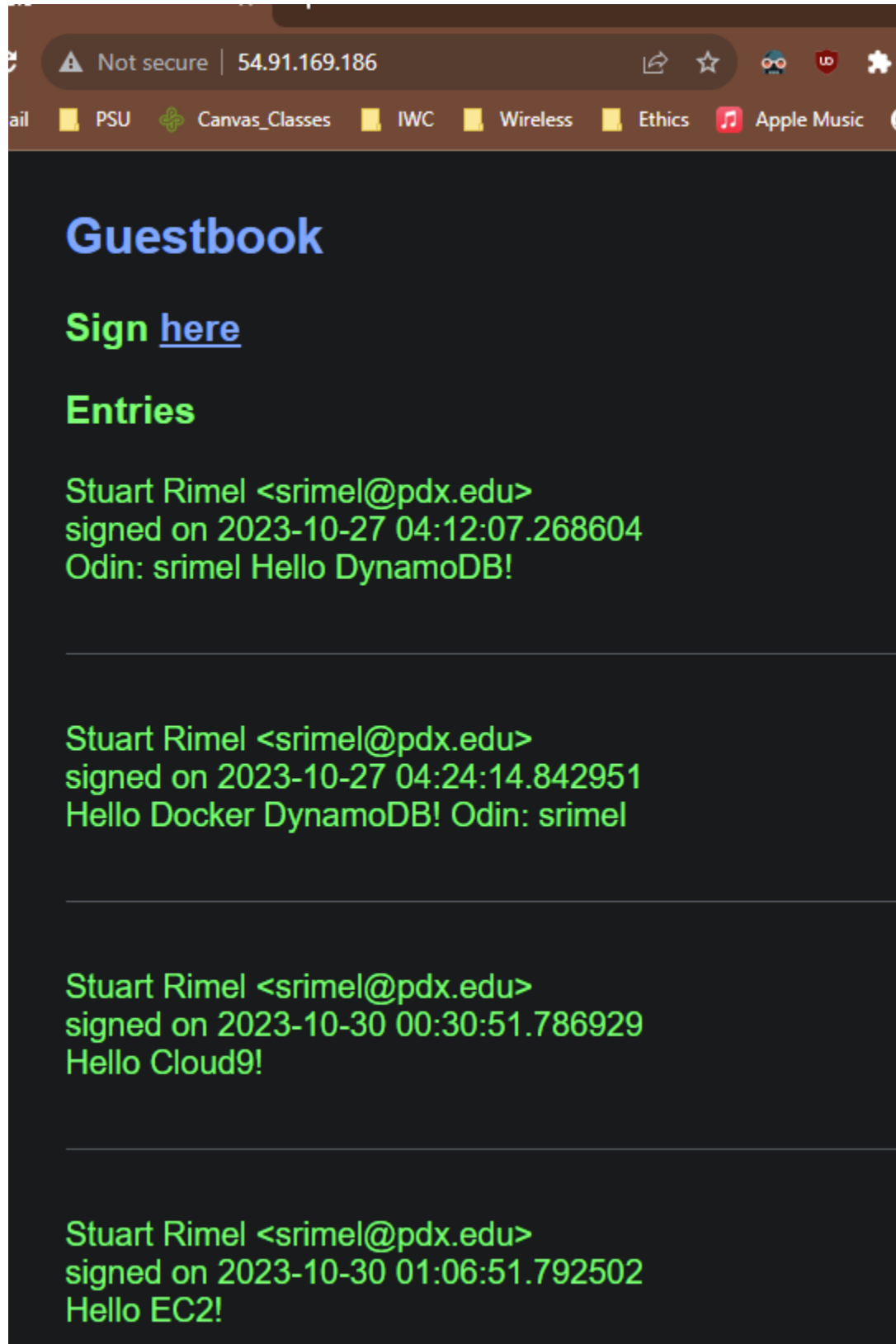
DIGEST: sha256:37d009bcc66bba92387286df3cebbfa2ed668e898a87e3633171dc229f2fdb5

OS/ARCH	COMPRESSED SIZE ⓘ	LAST PUSHED	TYPE
linux/amd64	47.98 MB	a few seconds ago by srinel	Image

5.2a.11: Run the application



5.2a.15: Visit the application

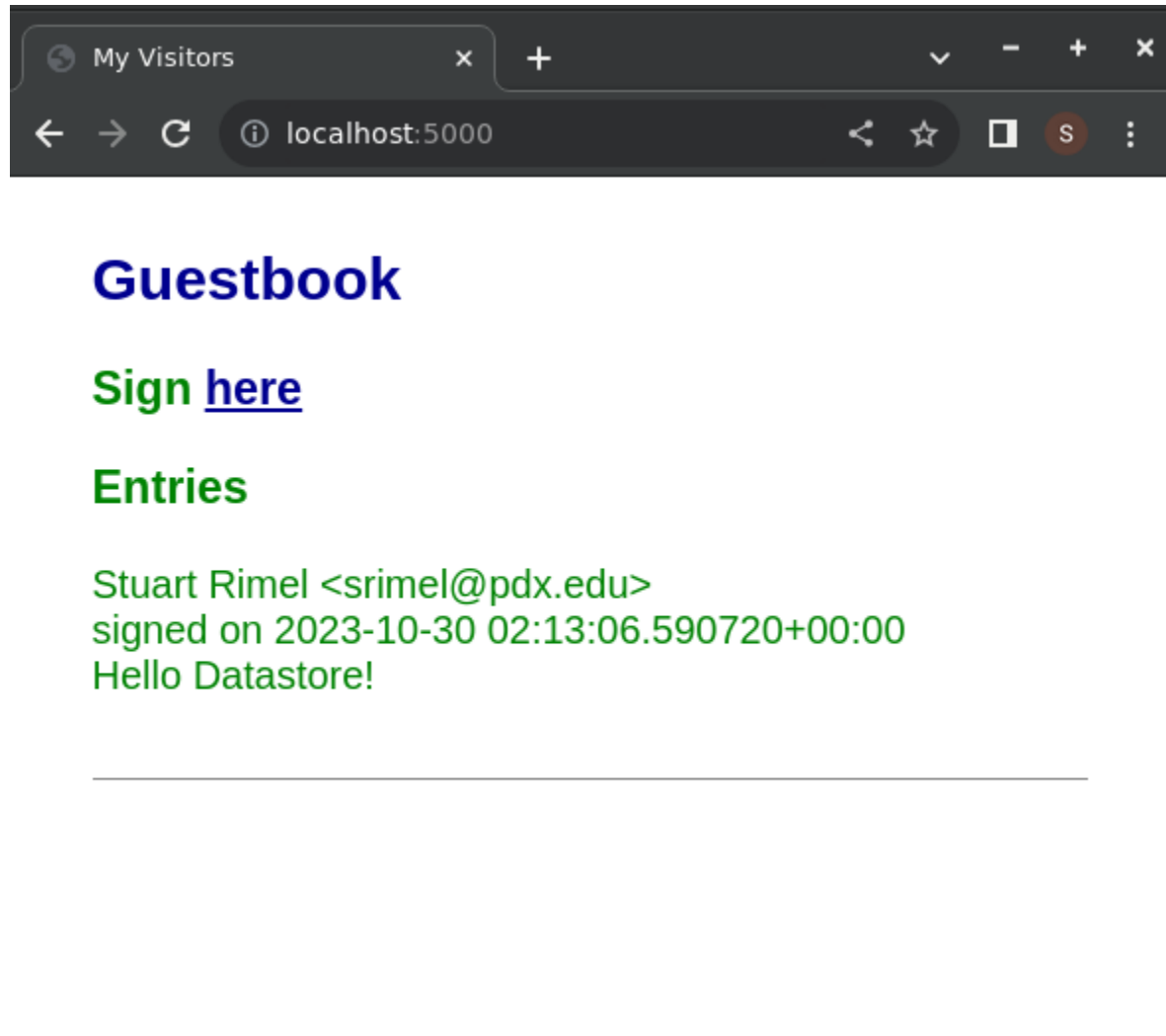


5.2a.16: View the database

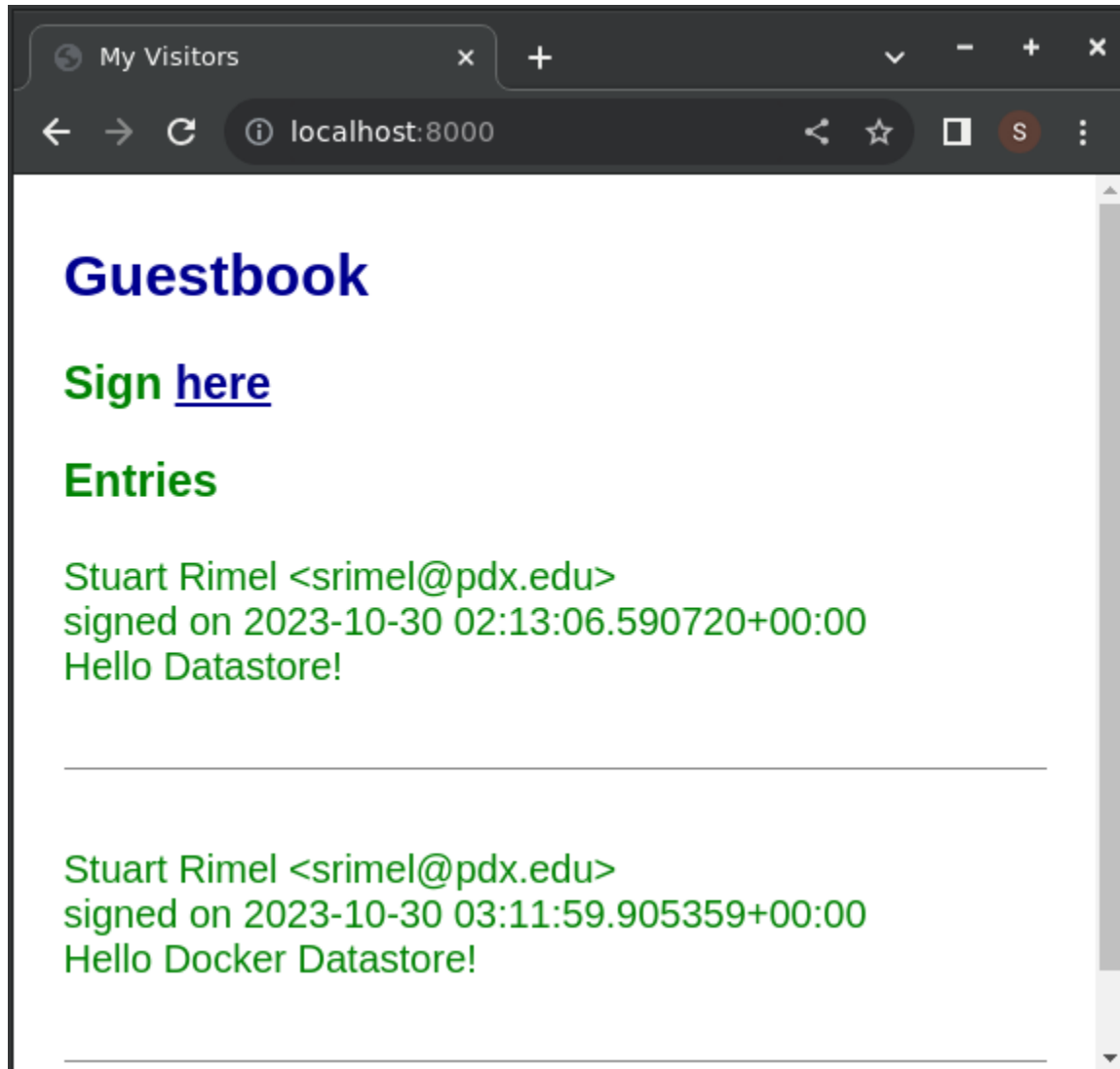
Items returned (4)				
<input type="checkbox"/>	email (String) ▾	date (String) ▾	message ▾	name
<input type="checkbox"/>	srimel@pdx.edu	2023-10-27 04:12:07.268604	Odin: srimel Hello DynamoDB!	Stuart Rimel
<input type="checkbox"/>	srimel@pdx.edu	2023-10-27 04:24:14.842951	Hello Docker DynamoDB! Odin: srimel	Stuart Rimel
<input type="checkbox"/>	srimel@pdx.edu	2023-10-30 00:30:51.786929	Hello Cloud9!	Stuart Rimel
<input type="checkbox"/>	srimel@pdx.edu	2023-10-30 01:06:51.792502	Hello EC2!	Stuart Rimel

5.2g: Cloud Datastore Guestbook

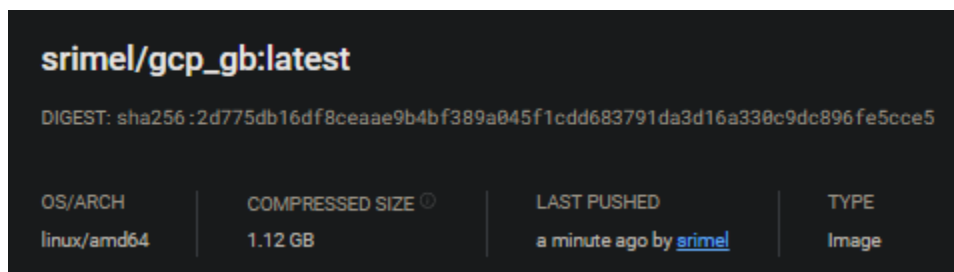
5.2g.7: Run the application



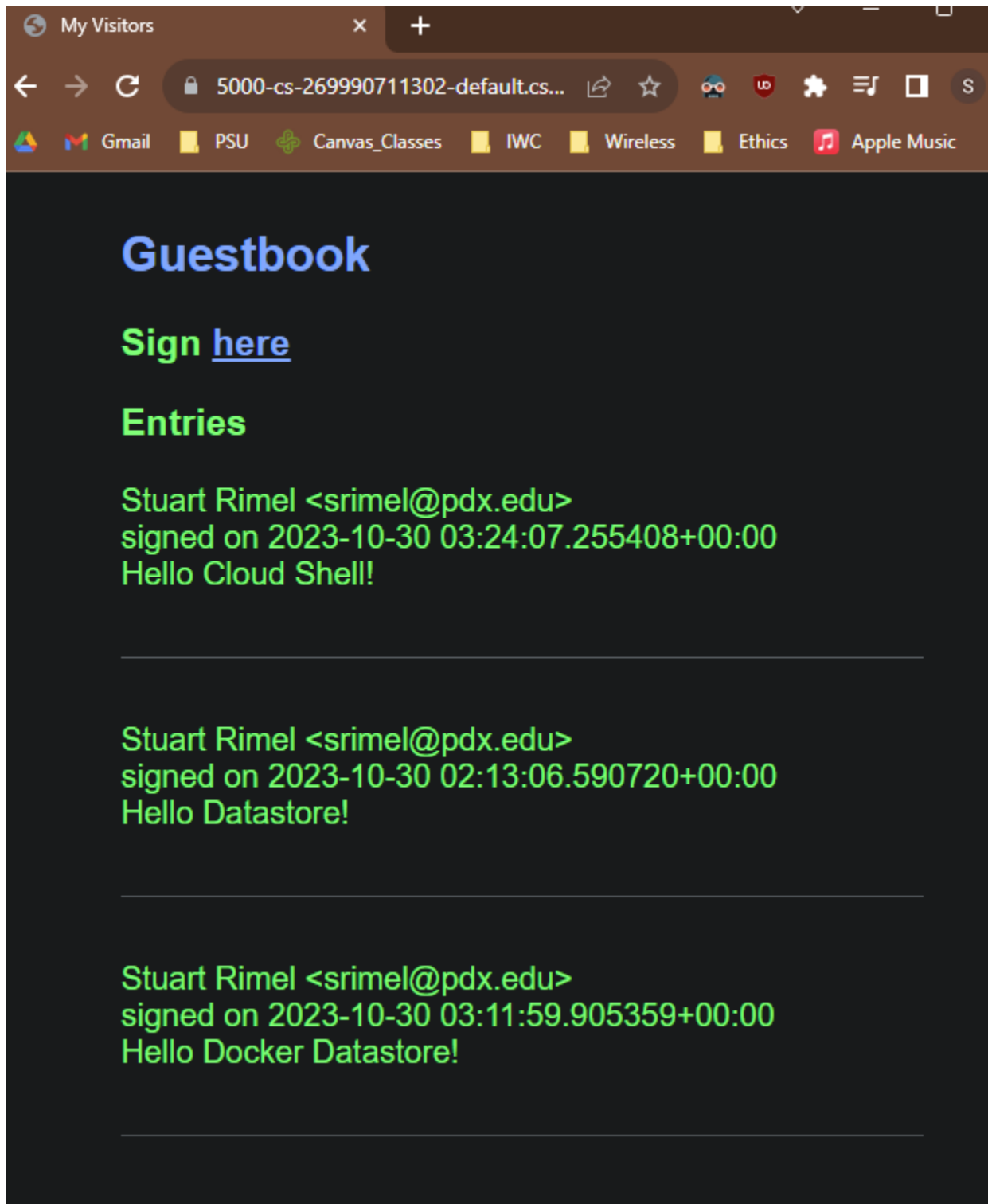
5.2g.9: Run the application



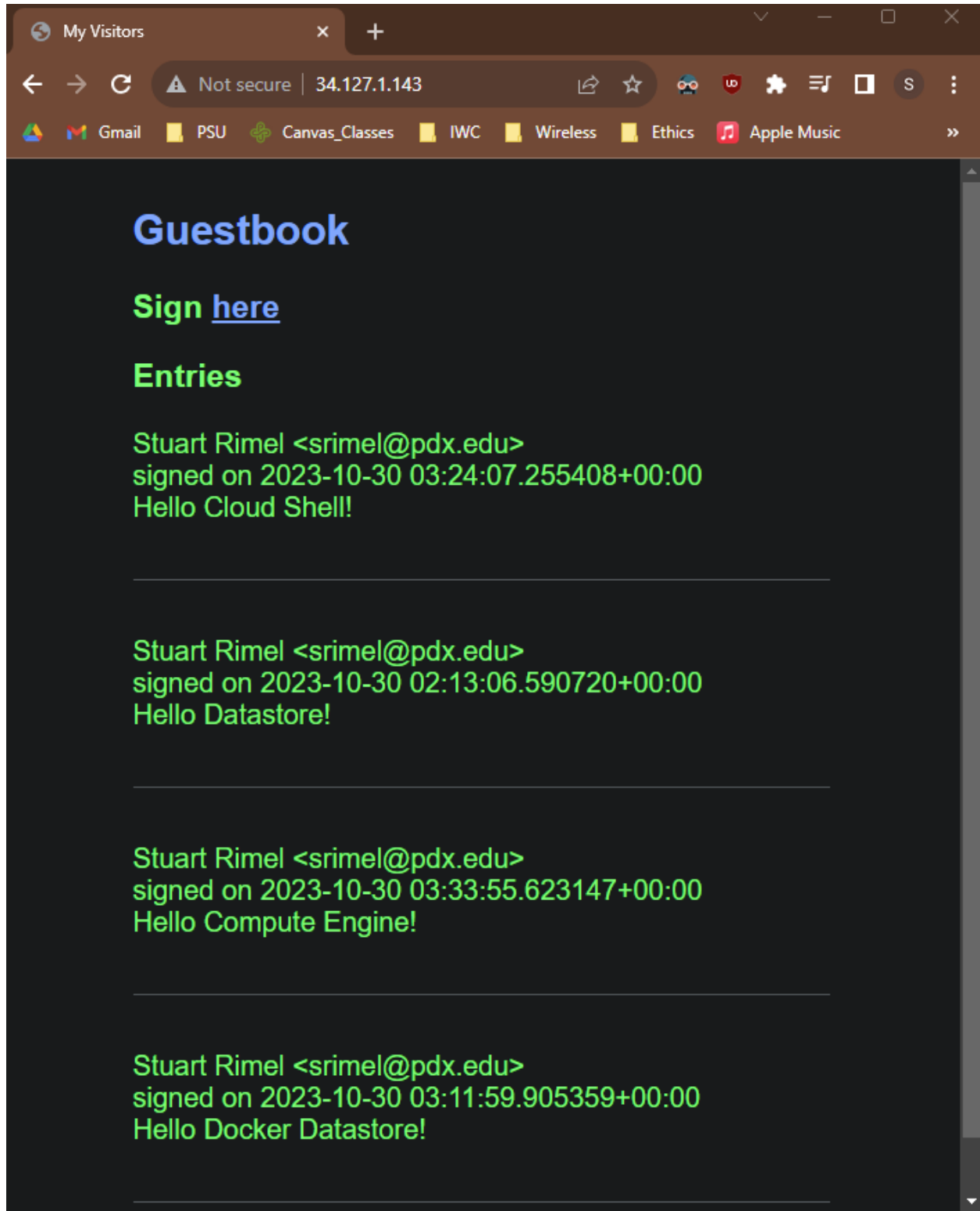
5.2g.10: Push the container



5.2g.12: Run the application



5.2g.15: Visit the application



5.2g.16: View the database

Query results					
<input type="checkbox"/>	Name/ID ↑	date	email	message	name
<input type="checkbox"/>	id=5632499082330112	October 29, 2023 at 8:24:07.255PM UTC-7	srime1@pdx.edu	Hello Cloud Shell!	Stuart Rimel
<input type="checkbox"/>	id=5634161670881280	October 29, 2023 at 7:13:06.590PM UTC-7	srime1@pdx.edu	Hello Datastore!	Stuart Rimel
<input type="checkbox"/>	id=5642368648740864	October 29, 2023 at 8:33:55.623PM UTC-7	srime1@pdx.edu	Hello Compute Engine!	Stuart Rimel
<input type="checkbox"/>	id=5644004762845184	October 29, 2023 at 8:11:59.905PM UTC-7	srime1@pdx.edu	Hello Docker Datastore!	Stuart Rimel