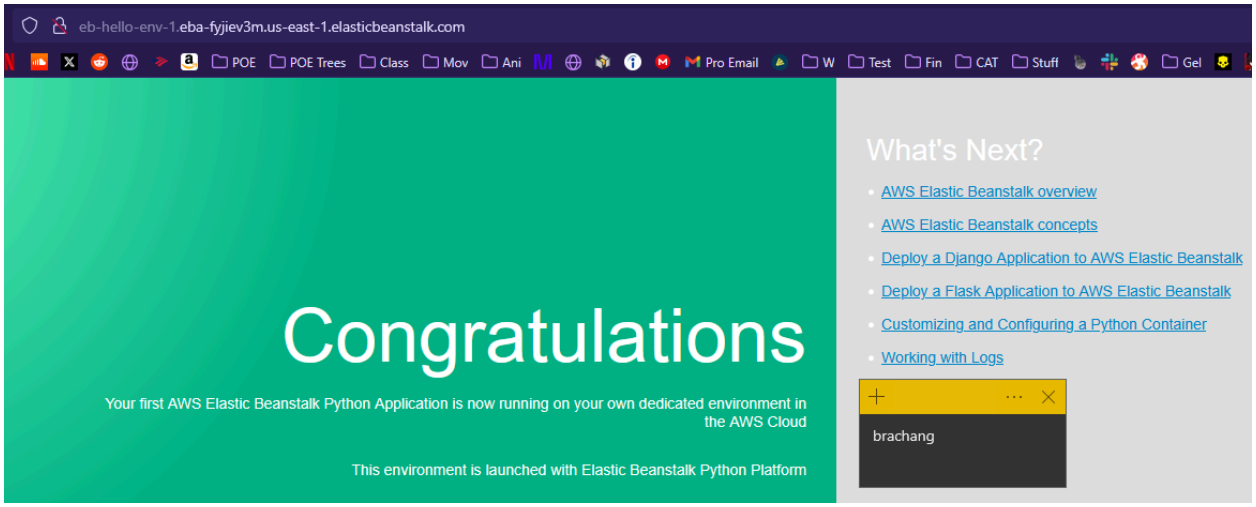
Bradley Chang

6.1a: EB Guestbook

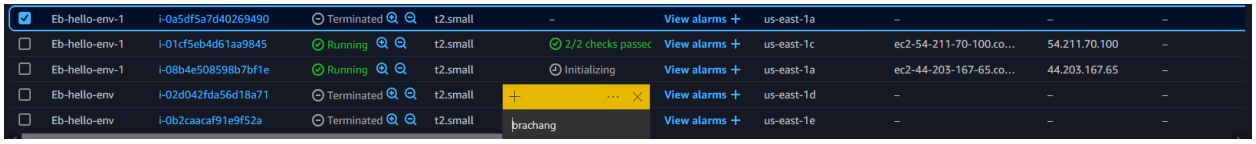
3. Running the application

Take a screenshot showing it has been brought up successfully



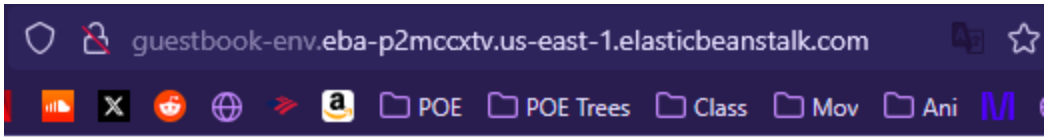
4. Handling failures seamlessly

Take a screenshot of the replacement VM being started.



7. Deploying the Guestbook

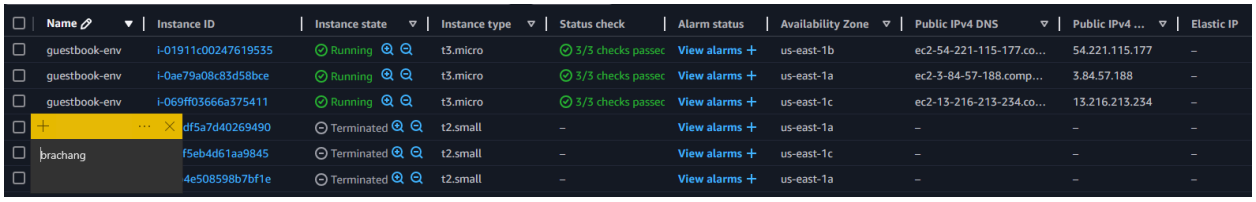
Take a screenshot of the Guestbook including the URL with the entry in it.



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

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-15 21:48:21.580718
Hello Elastic Beanstalk!

Take a screenshot of them.

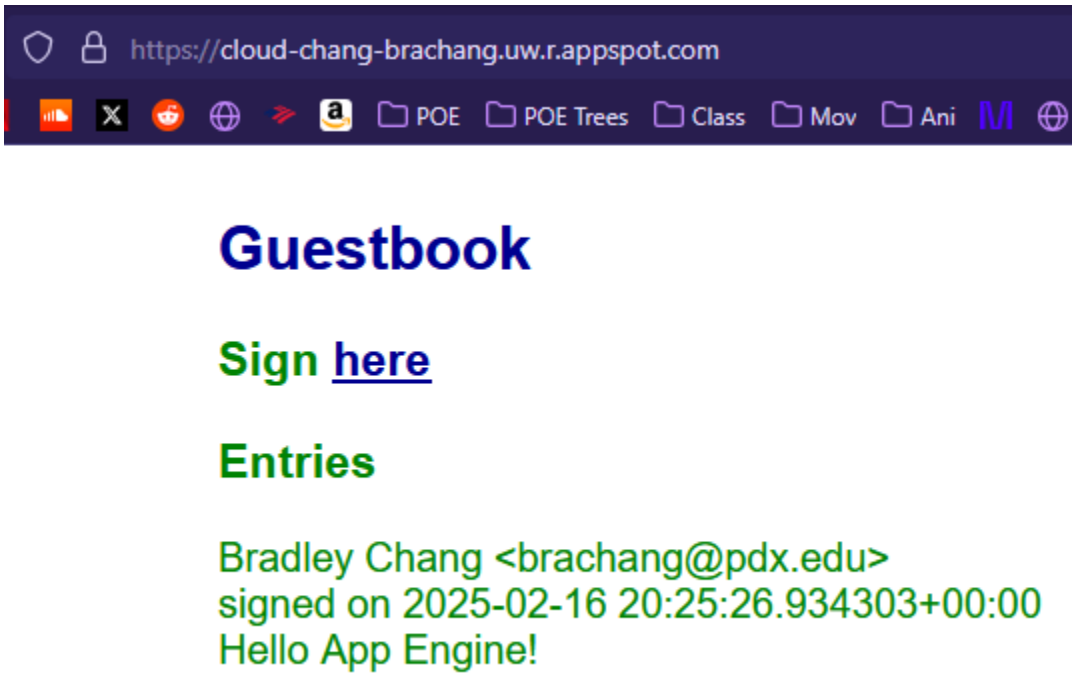


Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
guestbook-env	i-01911c00247619535	Running	t3.micro	3/3 checks passec	View alarms	us-east-1b	ec2-54-221-115-177.co...	54.221.115.177	–
guestbook-env	i-0ae79a08c83d58bce	Running	t3.micro	3/3 checks passec	View alarms	us-east-1a	ec2-3-84-57-188.comp...	3.84.57.188	–
guestbook-env	i-069ff03666a375411	Running	t3.micro	3/3 checks passec	View alarms	us-east-1c	ec2-13-216-213-234.co...	13.216.213.234	–
	df5a7d40269490	Terminated	t2.small	–	View alarms	us-east-1a	–	–	–
brachang	f5eb4d61aa9845	Terminated	t2.small	–	View alarms	us-east-1c	–	–	–
	4e508598b7bf1e	Terminated	t2.small	–	View alarms	us-east-1a	–	–	–

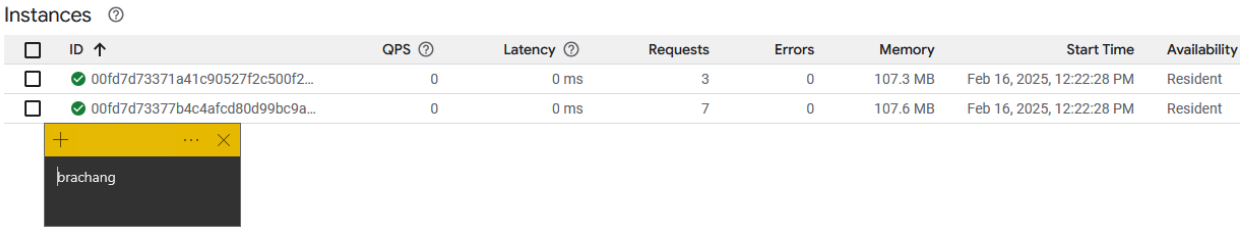
6.1g: App Engine Guestbook

3. Deploying the Guestbook

Take a screenshot of the output that includes the URL in the address bar for your lab notebook.

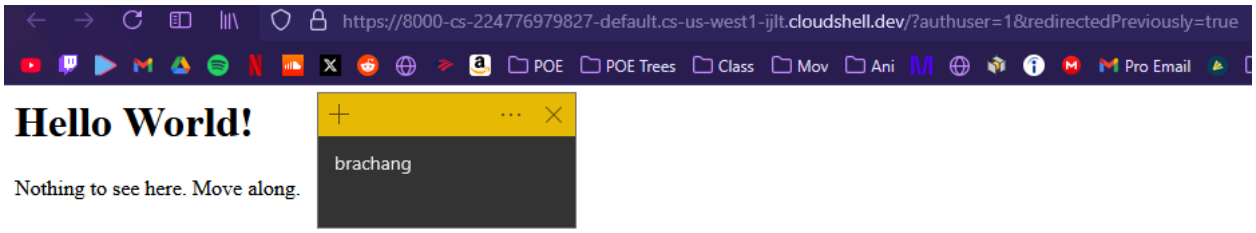


Take a screenshot of them.



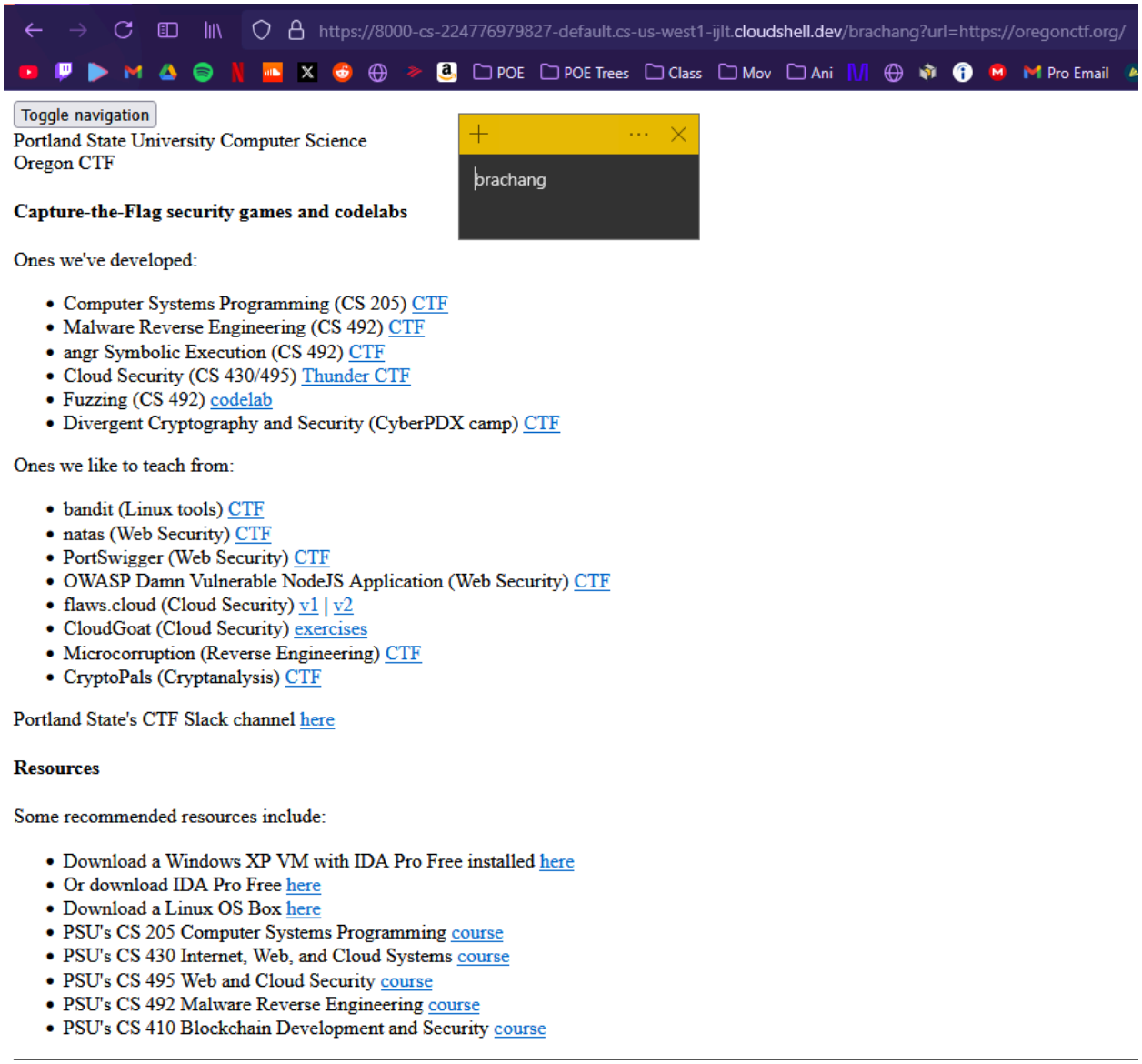
6.2g: Cloud Run, Secret Manager (Web proxy)

7. Build and test in Cloud Shell



8. Setup secret proxy

Take a screenshot of the proxy and its results including the URL containing your OdinID

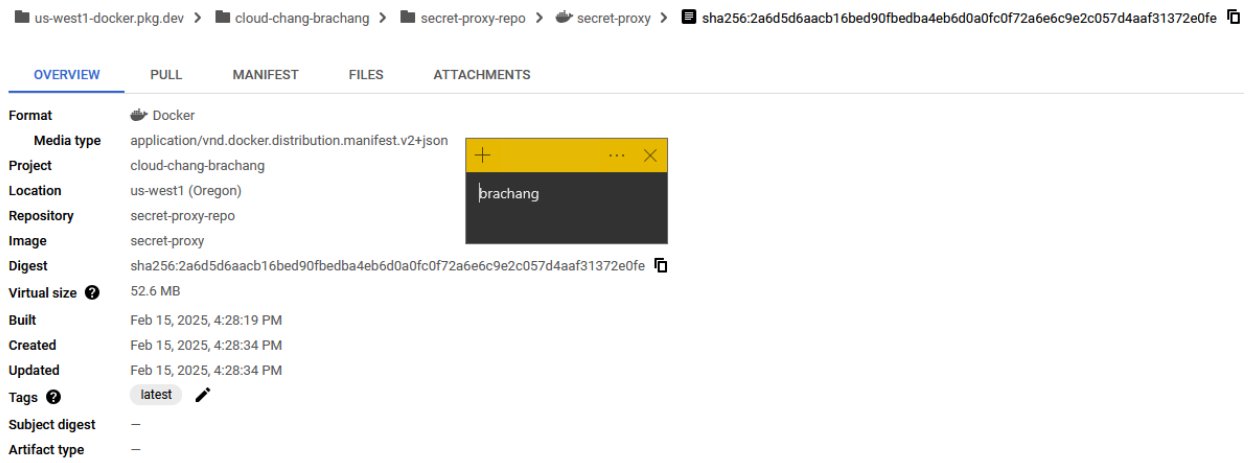


What is the security advantage of passing in the secret proxy route as an environment variable?

I would guess that it allows us to hide the secret proxy route by using an environment variable.

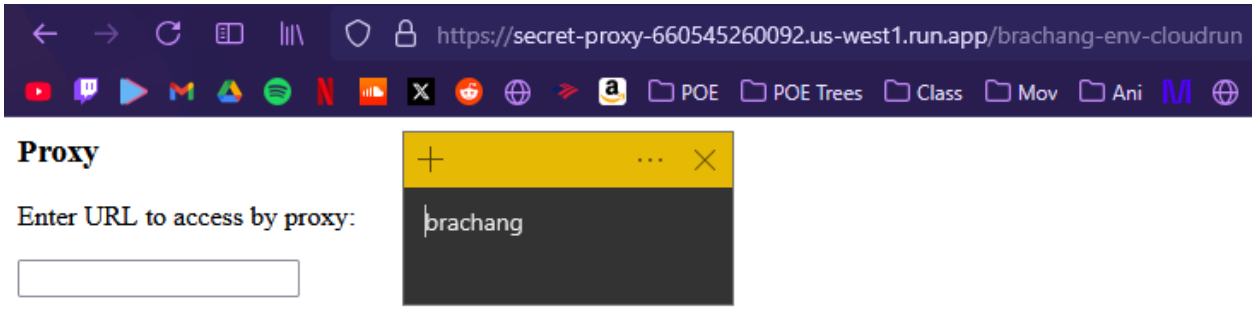
10. Cloud Build

Take a screenshot of the image in the registry that shows the size of the container for your lab notebook.

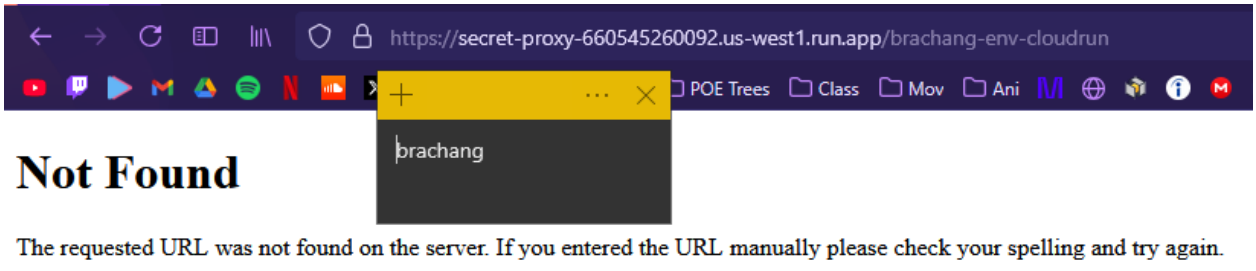


11. Deploy to Cloud Run

Take a screenshot of it that includes the proxy URL for your lab notebook.

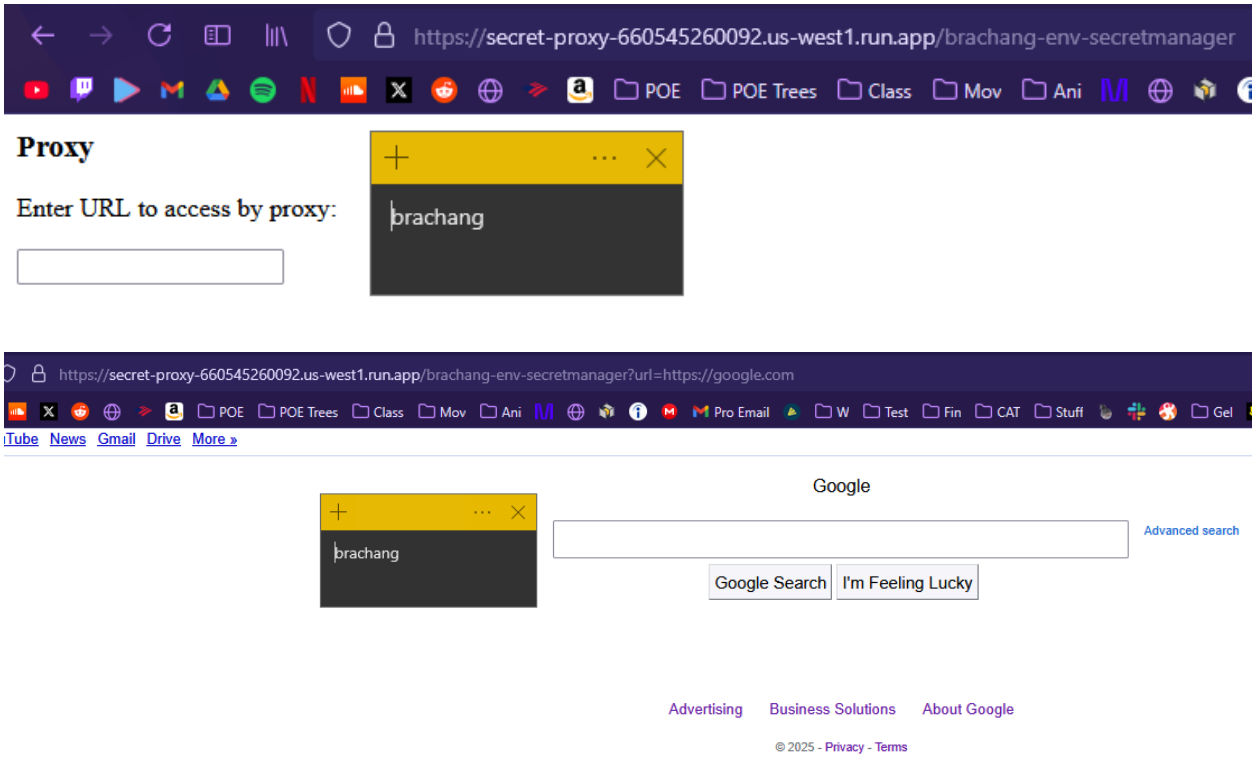


Take a screenshot of the error page that includes the proxy URL for your lab notebook.



13. Deploy to Cloud Run with Secret Manager

Take a screenshot of it that includes the proxy URL for your lab notebook.



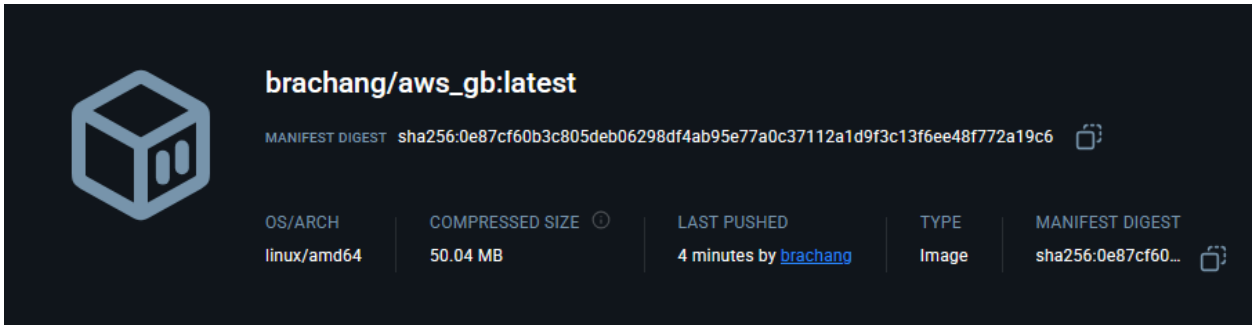
Identify the vulnerability in your lab notebook that Google has prevented.

It prevented a Server Side Request Forgery or SSRF vulnerability.

06.3a: ECS Guestbook

1. Prepare a container image

Show that your image was uploaded to your account on Docker Hub.

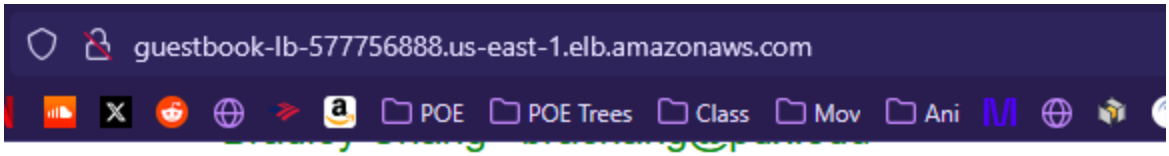


5. Examine the service

Take a screenshot of the DNS name of the guestbook-lb load balancer for your lab notebook

6. Visit the site

Take a screenshot of the Guestbook app running in a browser that includes the DNS name of the site.



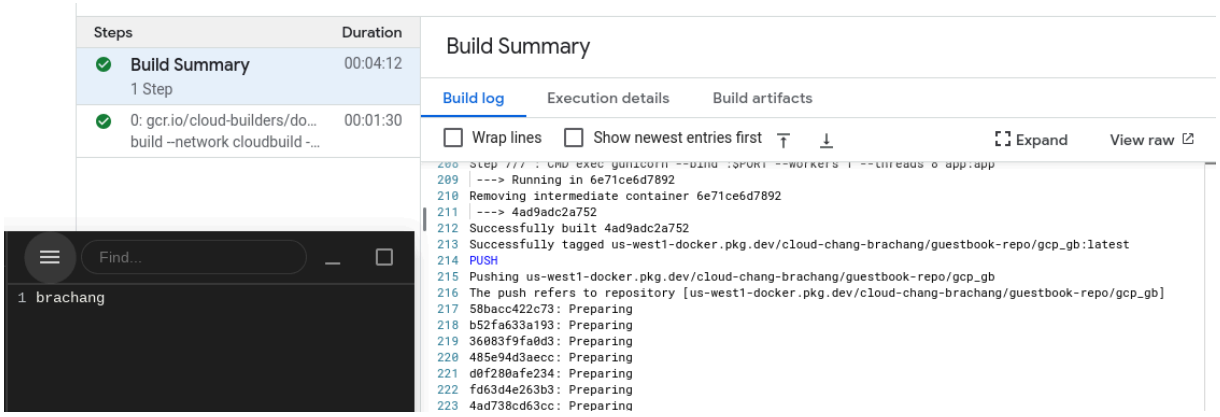
signed on 2025-02-15 21:48:21.580718
Hello Elastic Beanstalk!

Bradley Chang <brachang@pdx.edu>
signed on 2025-02-17 08:29:41.421293
Hello ECS!

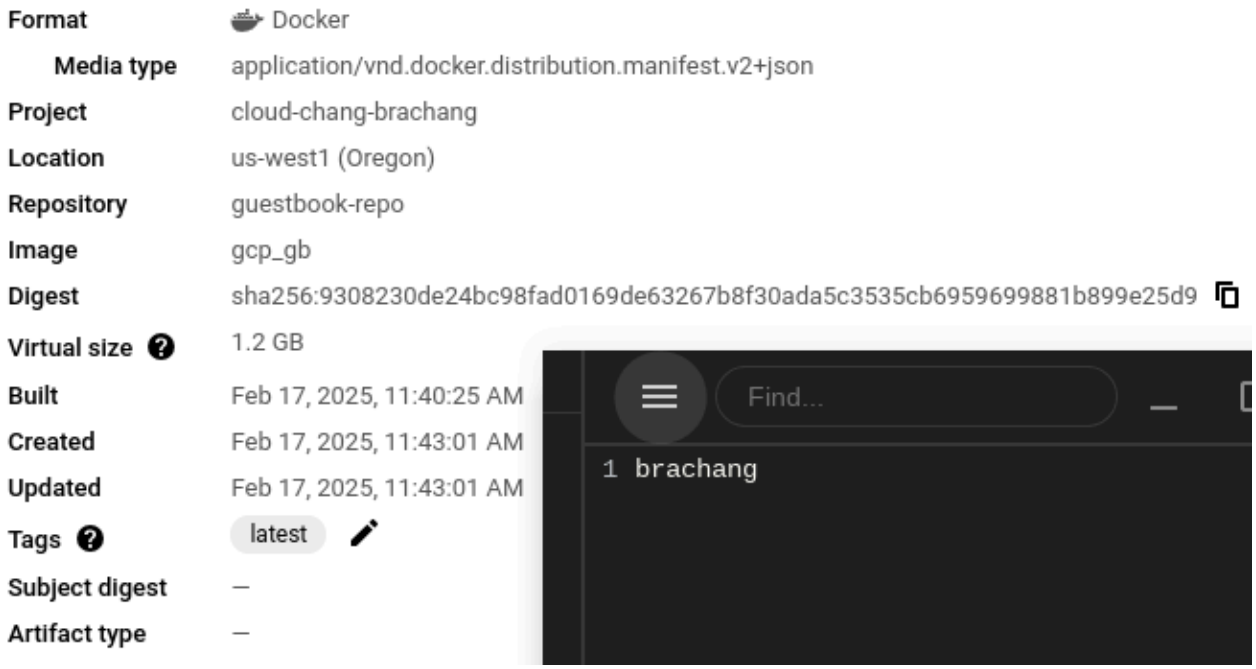
6.3g: Cloud Run Guestbook

2. Prepare a container image

Take a screenshot that includes the output of the command and the time it took to execute.

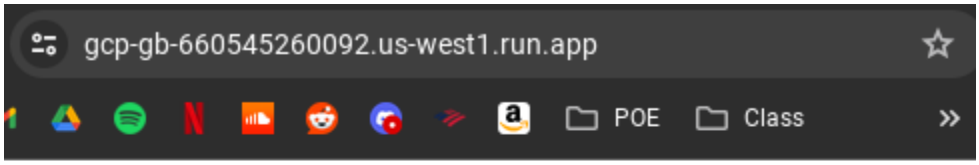


Take a screenshot showing the container image and its virtual size



4. View the Guestbook

Take a screenshot that includes the URL Cloud Run has created for your site.



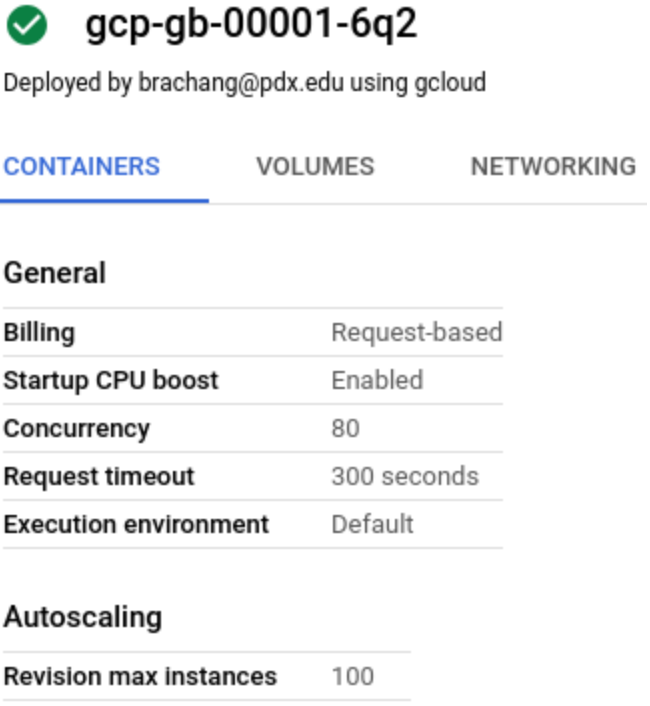
Bradley Chang <brachang@pdx.edu>
signed on 2025-02-17 20:03:05.763443+00:00
Hello Cloud Run!

What port do container instances listen on?

Image	us-west1-docker.pkg.dev/cloud-chang-brachang/gues...
Port	8080
Build	(no build information available)
Source	(no source information available)
Command and args	(container entrypoint)
CPU limit	1
Memory limit	512MiB

Listens on port 8080

What are the maximum number of instances Cloud Run will autoscale up to for your service?



Maximum of 100 instances.

6.4g: Cloud Functions, PubSub

4. -

After downloading the file from the bucket, where is it stored?

It is stored in {temp_local_filename}

What class in the ImageMagick package is used to do the blurring of the file?

The image class.

What lines of code perform the blurring of the image and its storage back into the filesystem?

```
# Blur the image using ImageMagick.
with Image(filename=temp_local_filename) as image:
    image.resize(*image.size, blur=16, filter="hamming")
    image.save(filename=temp_local_filename)
```

7. Test function

Take a screenshot of the blurred image in the output bucket for your lab notebook

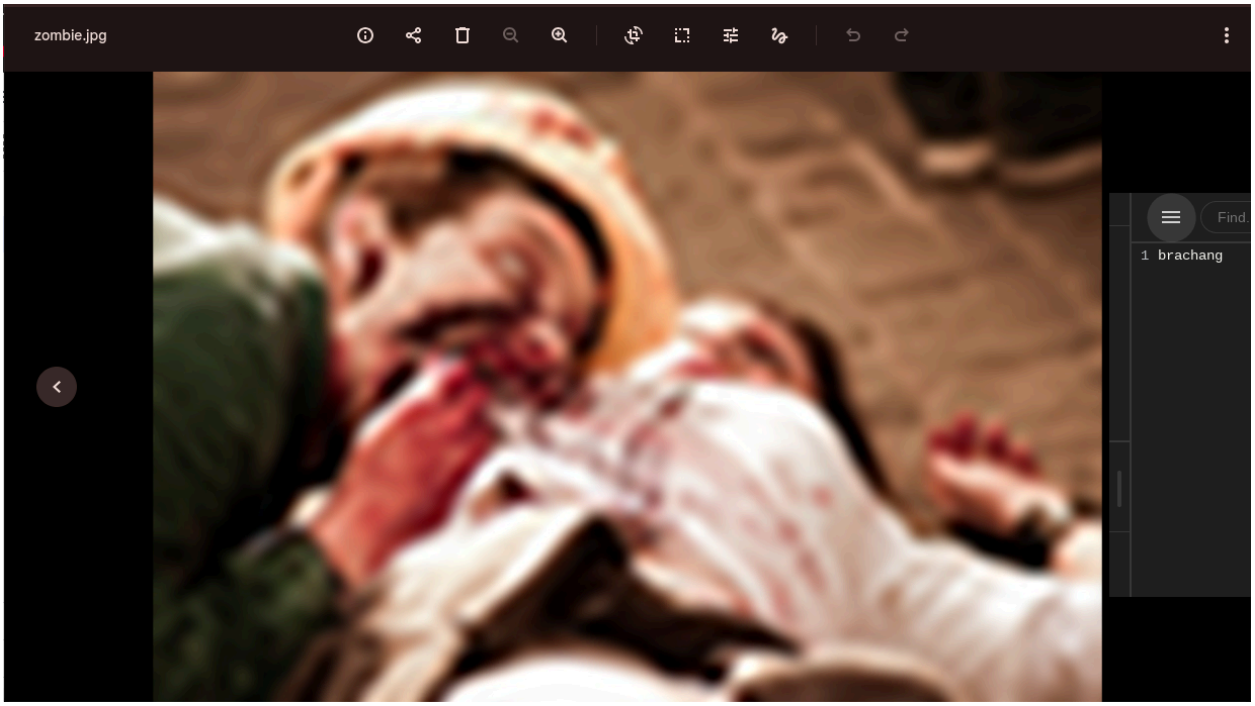


Image was automatically downloaded when I accessed it. Only way I can show it is by opening up an image app.

Include a screenshot of the output logs that show that the above image was blurred.

```
brachang@cloudshell:~/python-docs-samples/functions/v2/imagemagick (cloud-chang-brachang)$ gcloud beta functions logs read python-blur-function --region=us-west1
 --gen2 --limit=100
LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:15.361
LOG: Blurred image uploaded to: gs://brachang-image-blur/zombie.jpg

LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:15.094
LOG: Image zombie.jpg was blurred.

LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:08.194
LOG: Image zombie.jpg was downloaded to /tmp/tmpwj725cer.

LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:08.134
LOG: The image zombie.jpg was detected as inappropriate.

LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:07.796
LOG: Analyzing zombie.jpg.
```

```
LEVEL:
NAME: python-blur-function
EXECUTION_ID: 3a6DNZVUOCZB
TIME_UTC: 2025-02-17 22:10:07.796
LOG: Analyzing zombie.jpg.

LEVEL: I
NAME: python-blur-function
EXECUTION_ID:
TIME_UTC: 2025-02-17 22:10:07.545
LOG:

LEVEL: I
NAME: python-blur-function
EXECUTION_ID:
TIME_UTC: 2025-02-17 22:09:16.625
LOG: Default STARTUP TCP probe succeeded after 1 attempt for container "worker" on port 8080.
brachang@cloudshell:~/python-docs-samples/functions/v2/imagemagick (cloud-chang-brachang)$
```

11. PubSub via CLI

Why are there no items returned?

Because there are no items in the list since nothing was published.

12. -

What is the messageId of the published message?

```
brachang@cloudshell:~ (cloud-chang-brachang)$ gcloud pubsub topics publish topic-brachang --
message="Message #2"
messageIds:
- '13970257424404077'
brachang@cloudshell:~ (cloud-chang-brachang)$
```

Take a screenshot of the output of the successful pull that includes the message and its messageId.

```
brachang@pubsub:~$ gcloud pubsub subscriptions pull sub-${USER}
```

DATA	MESSAGE_ID	ORDERING_KEY	ATTRIBUTES	DELIVERY_ATTEMPT	ACK_ID
Message #2	13970257424404077				RFAGFixdRkhRNxkIaFEOT14jPzUgKEUaAwgUBXx9cFtVdV1dcmhRDRlyfWB8b1sVCABDB38LURsHaE5tdR-Iheb_S0NUa1kaBgJHVnlbWR8JaFhccgB5pNDcqZ72vXIJOjqc24HSbTvsyJdbZiM9XxJLLD5-NTBFQV5AEkw-BURJUytDCypYEU4EISE-MD5FUw

```
brachang@pubsub:~$
```

15. Test programs and clean up

Take a screenshot showing the messageIds and messages sent

```
(env) brachang@cloudshell:~ (cloud-chang-brachang)$ python3 publisher.py
Enter a message to send: Hello world!
Published 13971654011054411 to topic projects/cloud-chang-brachang/topics/my_topic
Enter a message to send: vim is the best!
Published 13971645855677264 to topic projects/cloud-chang-brachang/topics/my_topic
Enter a message to send: Hello there!
Published 13970574700512149 to topic projects/cloud-chang-brachang/topics/my_topic
Enter a message to send:
```

Take a screenshot showing the same messageIds and messages received

```
(env) brachang@pubsub:~$ vim subscriber.py
(env) brachang@pubsub:~$ python3 subscriber.py
Received message 13971654011054411: 2025-02-18 01:18:41 (projects/cloud-chang-brachang/topics/my_topic) : Hello world!
Received message 13971645855677264: 2025-02-18 01:19:06 (projects/cloud-chang-brachang/topics/my_topic) : vim is the best!
Received message 13970574700512149: 2025-02-18 01:20:02 (projects/cloud-chang-brachang/topics/my_topic) : Hello there!
```