

Week6

Lab6

Armant Touche

Class/Instructor: CS430P/ Dr. Wu-Chang
Date: 11/07/22

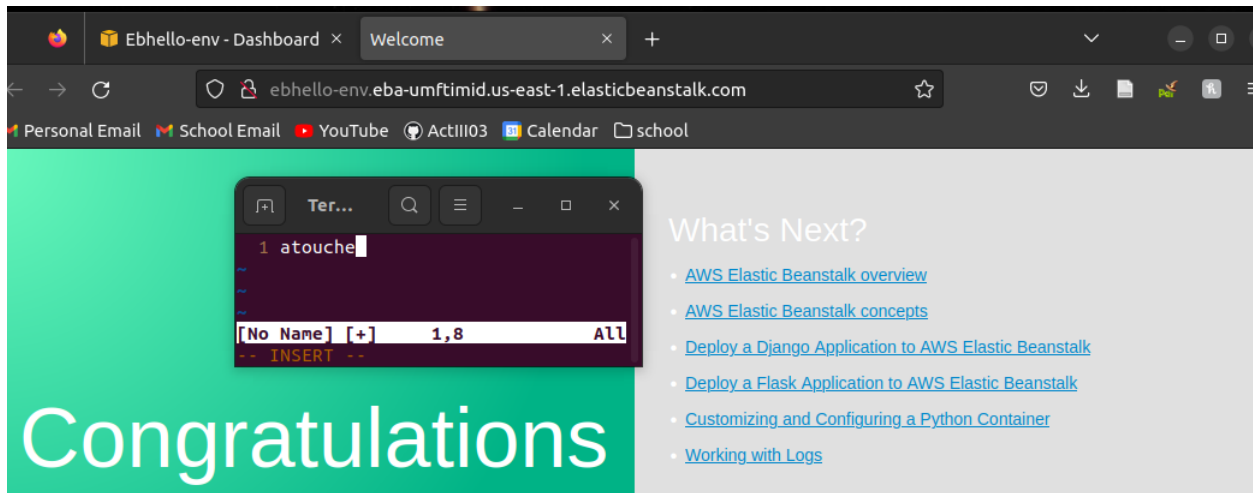
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1. Lab6

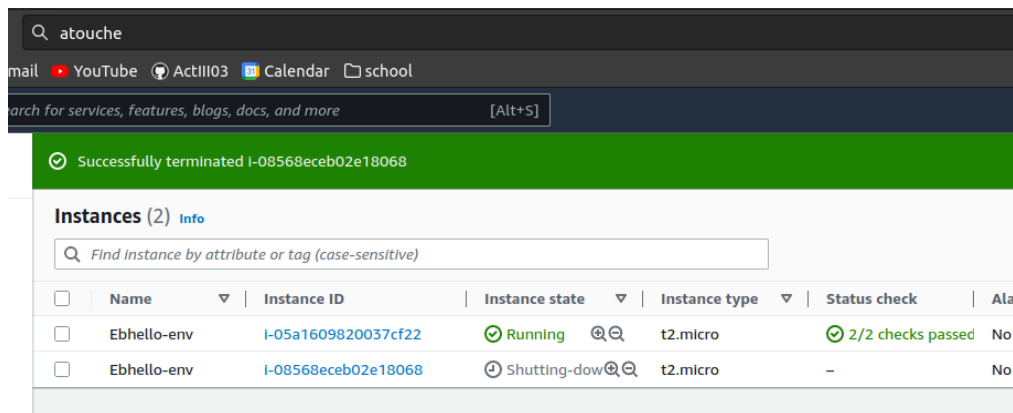
- 1.1. EB Guestbook
- 1.2. App Engine Guestbook
- 1.3. Cloud Run, Secret Manager (Web proxy)
- 1.4. Cloud Run Guestbook
- 1.5. Cloud Functions (Image Blurring)

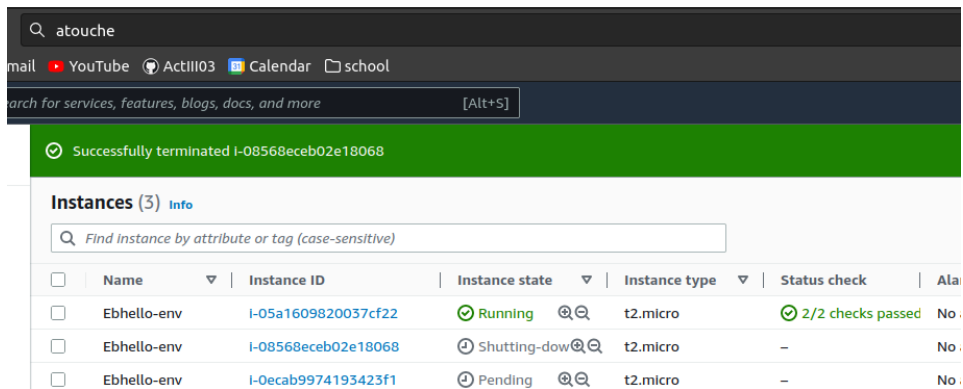
Elastic Beanstalk ([Link](#))

- ☐ Elastic Beanstalk
- ☐ Elastic Beanstalk sample application
- ☐ Running the application
 - ☐ **Screenshot**

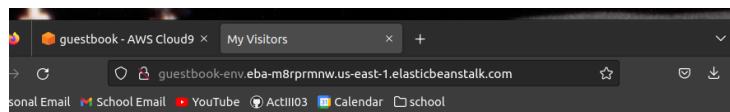


- ☐ Handling failures seamlessly
 - ☐ **Screenshot**





- ☐ Clean up
- ☐ Elastic Beanstalk Guestbook
- ☐ Deploying the Guestbook
 - ☐ Screenshot:
 - ☐ guestbook



Guestbook

[Sign here](#)

Entries

atouche <atouche@pdx.edu>
signed on 2022-10-31 19:39:04.175025
Hello Docker DynamoDB!

atouche <atouche@pdx.edu>
signed on 2022-10-31 23:35:19.375622
Hello EC2!

atouche <atouche@pdx.edu>
signed on 2022-11-01 23:29:16.356388
Hello Elastic Beanstalk!

☐ ec2's

cloud9 x Instances | EC2 Management x +

atouche

Email YouTube ActIII03 Calendar school

search [Alt+S]

< Instances (7) Info

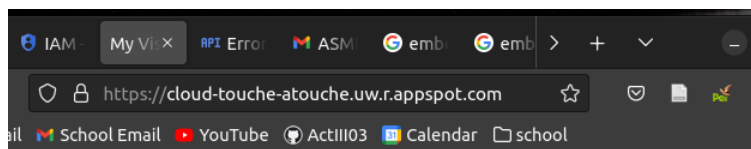
Find Instance by attribute or tag (case-sensitive)

<input type="checkbox"/>	Name ▾	Instance ID	Instance state ▲
<input type="checkbox"/>	guestbook-env	i-0bc82f431af50fb70	Running 🔍
<input type="checkbox"/>	guestbook-env	i-0f69eef78f88af574	Running 🔍
<input type="checkbox"/>	aws-cloud9-guestbook-698800af09ca42e5a...	i-013d161d0e556bee5	Running 🔍
<input type="checkbox"/>	guestbook-env	i-023e2a7dbfa24746c	Running 🔍
<input type="checkbox"/>	Ebhello-env	i-05a1609820037cf22	Terminated 🔍
<input type="checkbox"/>	Ebhello-env	i-08568eceb02e18068	Terminated 🔍
<input type="checkbox"/>	Ebhello-env	i-0ecab9974193423f1	Terminated 🔍

☐ Clean up

App Engine Guestbook ([Link](#))

- ☐ App Engine
- ☐ Reducing Privileges
 - ☐ Config IAM for App Engine service account from Editor to Cloud Datastore User
- ☐ app.yaml
 - ☐
- ☐ Deploying the Guestbook
 - ☐ **Screenshot**



Guestbook

Sign [here](#)

Entries

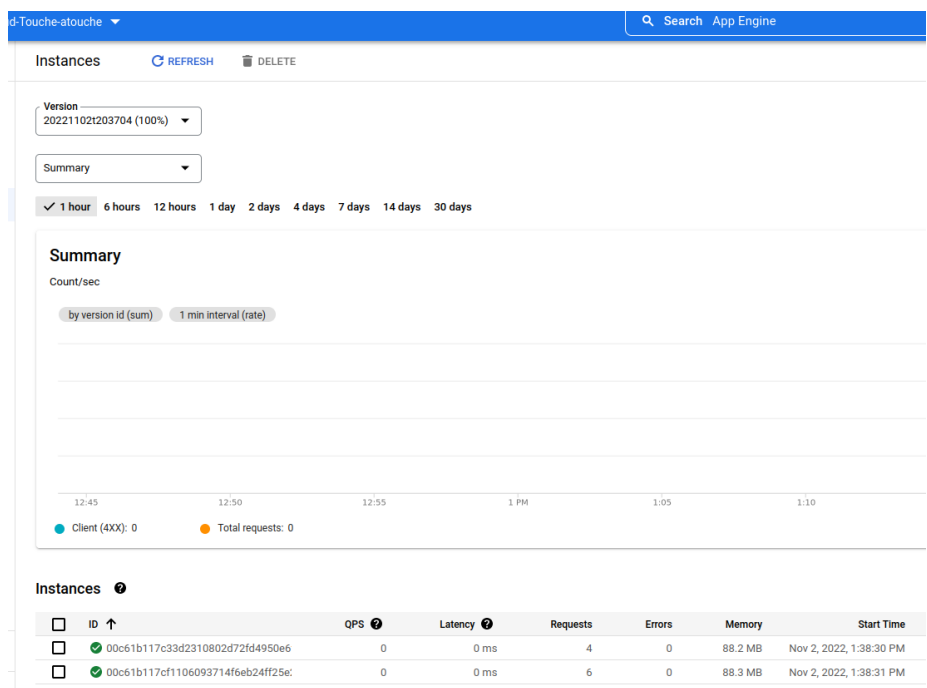
atouche <atouche@pdx.edu>
signed on 2022-11-01 00:23:36.961581+00:00
Hell Cloud Shell!

atouche <atouche@pdx.edu>
signed on 2022-11-02 20:42:44.670556+00:00
Hello App Engine!

atouche <atouche@pdx.edu>
signed on 2022-11-01 00:46:55.560094+00:00
Hello Compute Engine!

atouche <atouche@pdx.edu>
signed on 2022-11-01 00:14:18.191435+00:00
Hell Docker Datastore!

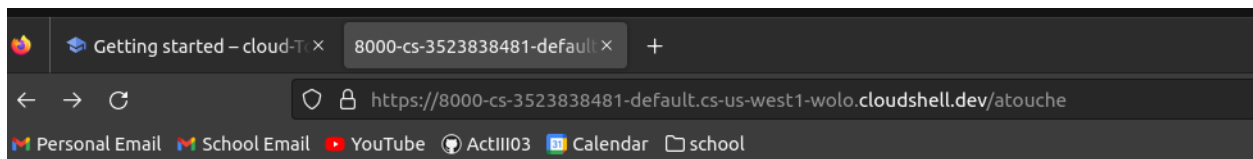
- ☐ Handling failures seamlessly
 - ☐ Screenshot of instances



- ☐ Clean Up
 - ☐ Just stop instances

Cloud Run, Secret Manager (Web Proxy) ([Link](#))

- ☐ Cloud Run
- ☐ Application
- ☐ app.py
- ☐ templates/proxy.html
- ☐ requirements.txt
- ☐ Dockerfile
- ☐ Build and test in Cloud Shell
- ☐ Setup secret Proxy
 - ☐ **Take a screenshot of the proxy and its results including the URL containing your OdinID**



Proxy

Enter URL to access by proxy:

- ☐ **What is the security advantage of passing in the secret proxy route as an environment variable?**
 - By *passing*, I am assuming w/ docker run. Instead of building docker image w/ env set to secret proxy, we want to run the command w/o having persistent data (data that could contain secret) in docker image.


☐ Cloud Build and Container Registry

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

secret-proxy

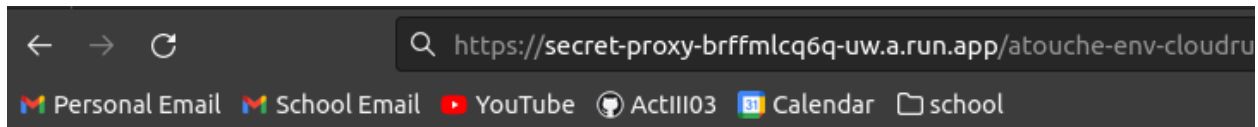
gcr.io > cloud-touche-atouche > secret-proxy

Filter Enter property name or value

<input type="checkbox"/>	Name	Tags	Virtual Size ?	Created	Uploaded ↓	
<input type="checkbox"/>	 2770981a1596	latest	50.1 MB	Just now	Just now	⋮

☐ Deploy to Cloud Run

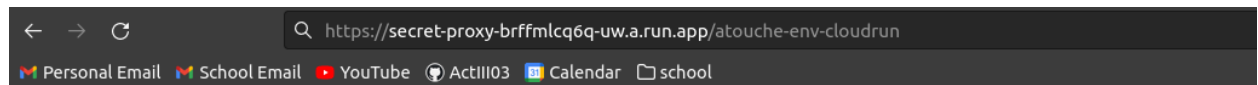
☐ Take a screenshot of it that includes the proxy URL for your lab notebook.



Proxy

Enter URL to access by proxy:

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



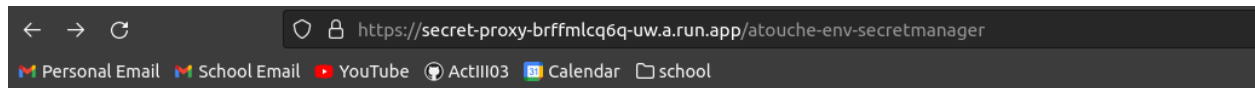
Not Found

The requested URL was not found on the server. If you entered the URL manually please check your spelling and try again.

☐ Secret manager

☐ Deploy to Cloud Run with Secret Manager

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



Proxy

Enter URL to access by proxy:

google.com

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

- Server-side request forgery was the vulnerability prevented.

☐ Clean Up

Cloud Run Guestbook ([Link](#))

- ☐ Cloud Run
- ☐ Prepare a container image
 - ☐ **Take a screenshot that includes the output of the command and the time it took to execute.**

Cloud-Touch-to-ouch

Build details

REBUILD

COPY URL

Successful: b0f6206d

Started on Nov 4, 2022, 1:55:56 PM

Steps

Build Summary

1 Step

00:00:30

0

gcr.io/cloud-builders/docker

build --network cloudbuild --no-cache -t gcr.io/cloud-touch-atouch/secret-proxy

00:00:11

Build LOG

EXECUTION DETAILS

BUILD ARTIFACTS

Wrap lines

Show newest entries first

T

↓

57

Collecting Jinja2==3.8

79.5/79.5 KB 12.5 MB/s eta 0:00:00

58

Downloading Jinja2-3.1.2-py3-none-any.whl (133 KB)

133.1/133.1 KB 17.1 MB/s eta 0:00:00

59

Collecting importlib-metadata==3.6.8

133.1/133.1 KB 17.1 MB/s eta 0:00:00

60

Downloading importlib_metadata-3.6.8-py3-none-any.whl (21 KB)

21.0/21.0 KB 17.1 MB/s eta 0:00:00

61

Collecting Werkzeug==2.2.2

21.0/21.0 KB 17.1 MB/s eta 0:00:00

62

Downloading Werkzeug-2.2.2-py3-none-any.whl (232 KB)

232.7/232.7 KB 25.0 MB/s eta 0:00:00

63

Collecting click==8.8

232.7/232.7 KB 25.0 MB/s eta 0:00:00

64

Downloading click-8.1.3-py3-none-any.whl (96 KB)

96.0/96.0 KB 14.5 MB/s eta 0:00:00

65

Collecting itsdangerous==2.8

96.0/96.0 KB 14.5 MB/s eta 0:00:00

66

Downloading itsdangerous-2.1.2-py3-none-any.whl (15 KB)

15.0/15.0 KB 14.5 MB/s eta 0:00:00

67

Collecting urllib3==1.27.1

15.0/15.0 KB 14.5 MB/s eta 0:00:00

68

Downloading urllib3-1.26.12-py2.py3-none-any.whl (148 KB)

148.4/148.4 KB 20.3 MB/s eta 0:00:00

69

Collecting certifi==2021.4.7

148.4/148.4 KB 20.3 MB/s eta 0:00:00

70

Downloading certifi-2022.9.24-py3-none-any.whl (161 KB)

161.1/161.1 KB 23.7 MB/s eta 0:00:00

71

Collecting idna==3.5

161.1/161.1 KB 23.7 MB/s eta 0:00:00

72

Downloading idna-3.4-py3-none-any.whl (61 KB)

61.5/61.5 KB 9.2 MB/s eta 0:00:00

73

Collecting charset-normalizer==2.0.2

61.5/61.5 KB 9.2 MB/s eta 0:00:00

74

Downloading charset-normalizer-2.1.1-py3-none-any.whl (39 KB)

39.0/39.0 KB 9.2 MB/s eta 0:00:00

75

Requirement already satisfied: setuptools==58.0.0 in /usr/local/lib/python3.7/site-packages (from Jinja2==3.8)

39.0/39.0 KB 9.2 MB/s eta 0:00:00

76

Collecting zipp==3.8.0

39.0/39.0 KB 9.2 MB/s eta 0:00:00

77

Downloading zipp-3.10.0-py3-none-any.whl (6.2 KB)

6.2/6.2 KB 9.2 MB/s eta 0:00:00

78

Collecting typing-extensions==3.6.4

6.2/6.2 KB 9.2 MB/s eta 0:00:00

79

Downloading typing_extensions-3.6.4-py3-none-any.whl (26 KB)

26.0/26.0 KB 9.2 MB/s eta 0:00:00

80

Collecting MarkupSafe==2.0

26.0/26.0 KB 9.2 MB/s eta 0:00:00

81

Downloading MarkupSafe-2.1.1-cp37-abi-musllinux_1.2_17_x86_64-musl19.08.04-py3-none-any.whl (21 KB)

21.0/21.0 KB 9.2 MB/s eta 0:00:00

82

Installing collected packages: zipp, urllib3, typing-extensions, MarkupSafe, Werkzeug, Jinja2, click, itsdangerous

21.0/21.0 KB 9.2 MB/s eta 0:00:00

83

Successfully installed Jinja2-3.1.2 MarkupSafe-2.1.1 Werkzeug-2.2.2 click-8.1.3 itsdangerous-2.1.2 idna-3.4 charset-normalizer-2.1.1

21.0/21.0 KB 9.2 MB/s eta 0:00:00

84

WARNING: Running pip as the 'root' user can result in broken dependencies and conflicting file permissions.

21.0/21.0 KB 9.2 MB/s eta 0:00:00

85

WARNING: You are using pip version 22.0.4; however, version 23.2 is available.

21.0/21.0 KB 9.2 MB/s eta 0:00:00

86

You should consider upgrading via the /usr/local/lib/python3.7/site-packages/pip install --upgrade pip

21.0/21.0 KB 9.2 MB/s eta 0:00:00

87

Removing intermediate container b0f6206d

21.0/21.0 KB 9.2 MB/s eta 0:00:00

88

Step 6/8 : CMD secret-proxy --bind \$PORT --workers 1 --threads 8 app-app

21.0/21.0 KB 9.2 MB/s eta 0:00:00

89

----> Running in b7f0ea337e7d

21.0/21.0 KB 9.2 MB/s eta 0:00:00

90

Removing intermediate container b7f0ea337e7d

21.0/21.0 KB 9.2 MB/s eta 0:00:00

91

----> M046243704

21.0/21.0 KB 9.2 MB/s eta 0:00:00

92

Successfully built M046243704

21.0/21.0 KB 9.2 MB/s eta 0:00:00

93

Successfully tagged gcr.io/cloud-touch-atouch/secret-proxy:latest

21.0/21.0 KB 9.2 MB/s eta 0:00:00

94

101 PUSH

21.0/21.0 KB 9.2 MB/s eta 0:00:00

95

Pushing gcr.io/cloud-touch-atouch/secret-proxy

21.0/21.0 KB 9.2 MB/s eta 0:00:00

- ☐ Take a screenshot showing the container image and its virtual size

cloud-Touche-atouche ▾

← Images DELETE

gcp_gb

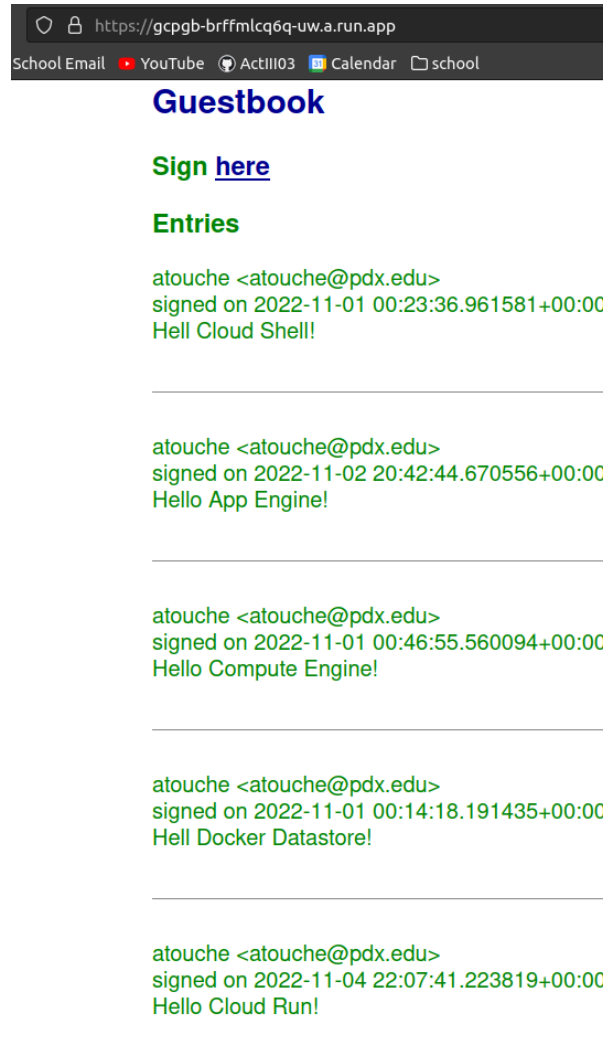
gcr.io > cloud-touche-atouche > gcp_gb

Filter Enter property name or value

<input type="checkbox"/>	Name	Tags	Virtual Size ?	Created	Uploaded ↓
<input type="checkbox"/>	87ffb863d913	latest	1.1 GB	12 minutes ago	8 minutes ago

- ☐ Deploy container with minimal privileges
- ☐ View the Guestbook

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



- ☐ View the "Details" section to the right and answer the following questions:
- ☐ What port do container instances listen on?
 - port=8080
 - ☐ What are the maximum number of instances Cloud Run will autoscale up to for your service?
 - max_instances=100

- ☐ Clean Up

Cloud Functions (Image blurring) ([Link](#))

- ☐ Image blurring
 - ☐ Clone
 - ☐ Create unique bucket
 - ☐ Image bucket name: cs430uniqu3buck
 - ☐ Blurred Image bucket name: cs430uniqu3buckb
- ☐ Services setup
- ☐ Code
- ☐ -
 - ☐ **After downloading the file from the bucket, where is it stored?**
 - Uploaded to a second bucket where env=**BLURRED_BUCKET_NAME**.
Using my created buckets as an example, cs430uniqu3buckb.
 - ☐ **What class in the ImageMagick package is used to do the blurring of the file?**
 - Class Image() is used and method resize(), which belongs to Image() class, does image blurring.
 - ☐ **What lines of code perform the blurring of the image and its storage back into the filesystem?**
 - main.py:(72-84) are the lines of code responsible for blurring and storing.
- ☐ Set up service account
- ☐ Deploy the function
 - ☐ Run: \$ gcloud functions deploy blur_offensive_images \
 - runtime python37 \
 - trigger-bucket cs430uniqu3buck \
 - set-env-vars BLURRED_BUCKET_NAME=cs430uniqu3buckb

- ☐ Test function
 - ☐ **Verify that at least one image has been blurred by taking a screenshot of it in the output bucket and including it in your lab notebook.**

cloud-Touche-atoche ▾
🔍 Search bucket

[←](#) Bucket details

cs430uniqu3buckb

Location	Storage class	Public access	Protection
us (multiple regions in United States)	Standard	Subject to object ACLs	None

OBJECTS
CONFIGURATION
PERMISSIONS
PROTECTION
LIFECYCLE

Buckets > cs430uniqu3buckb 📁

UPLOAD FILES
UPLOAD FOLDER
CREATE FOLDER
TRANSFER DATA ▾
MANAGE HOLDS
DOWNLOAD
DELETE

Filter by name prefix only ▾
🔍 Filter
Filter objects and folders

<input type="checkbox"/>	Name	Size	Type	Created ⓘ	Storage class	Last modified
<input type="checkbox"/>	📁 zombie-949916_1280.jpg	116.6 KB	application/octet-stream	Nov 7, 2022, 6:13:36 PM	Standard	Nov 7, 2022, 6:13:36 PM

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

```

LEVEL: I
NAME: blur_offensive_images
EXECUTION_ID: pva4iteikhm7
TIME_UTC: 2022-11-08 02:13:26.484
LOG: The image zombie-949916_1280.jpg was detected as inappropriate.

LEVEL: I
NAME: blur_offensive_images
EXECUTION_ID: pva4iteikhm7
TIME_UTC: 2022-11-08 02:13:25.893
LOG:

LEVEL: I
NAME: blur_offensive_images
EXECUTION_ID: pva4iteikhm7
TIME_UTC: 2022-11-08 02:13:25.893
LOG: Analyzing zombie-949916_1280.jpg.

LEVEL: D
NAME: blur_offensive_images
EXECUTION_ID: pva4iteikhm7
TIME_UTC: 2022-11-08 02:13:25.542
LOG: Function execution started
atouche@cloudshell:~/Documents/lab7/python-docs-samples/functions/imagemagick/assets/img (cloud-touche-atoche)$
  
```

- ☐ Clean up

