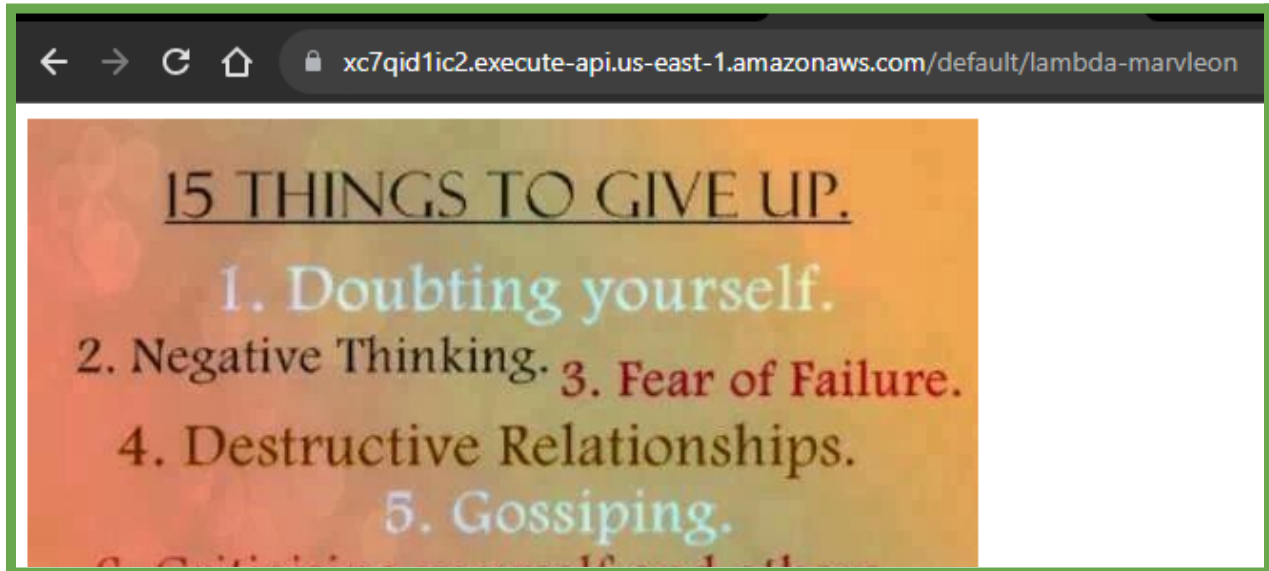


# Lab Week 8 — marvleon

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## 8.1a API Gateway

### 8.1.4 Test code

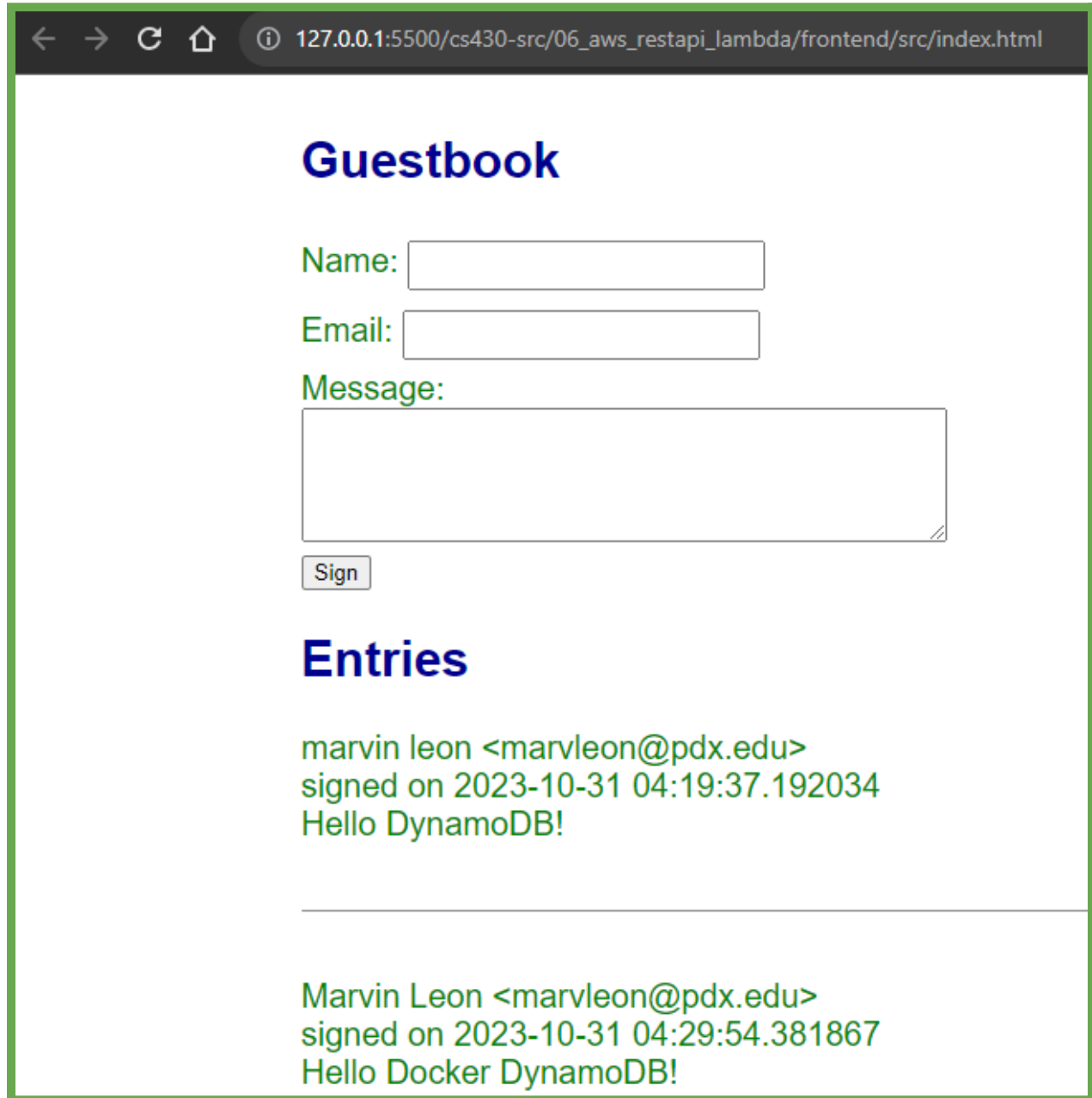


### 8.1.8 Test code

```
marvleon_unix@marvPC: ~  
marvleon@ada:~$ curl https://3ousvr9y04.execute-api.us-east-1.amazonaws.com/default/gettime-marvleon  
marvleon@ada:~$
```

## 8.2a Lambda, API Gateway Guestbook

### 8.2.10 Deploy API to production and view entries



The screenshot shows a web browser window with the address bar displaying `127.0.0.1:5500/cs430-src/06_aws_restapi_lambda/frontend/src/index.html`. The page has a light gray background and a green border. At the top, the word "Guestbook" is written in a large, bold, blue font. Below it, there are three input fields: "Name:" with a text box, "Email:" with a text box, and "Message:" with a larger text area. A "Sign" button is located below the message field. Below the form, the word "Entries" is written in a large, bold, blue font. Under "Entries", there are two entries, each consisting of a name and email in green text, a timestamp in green text, and a message in green text. The first entry is "marvin leon <marvleon@pdx.edu> signed on 2023-10-31 04:19:37.192034 Hello DynamoDB!". The second entry is "Marvin Leon <marvleon@pdx.edu> signed on 2023-10-31 04:29:54.381867 Hello Docker DynamoDB!".

**Guestbook**

Name:

Email:

Message:

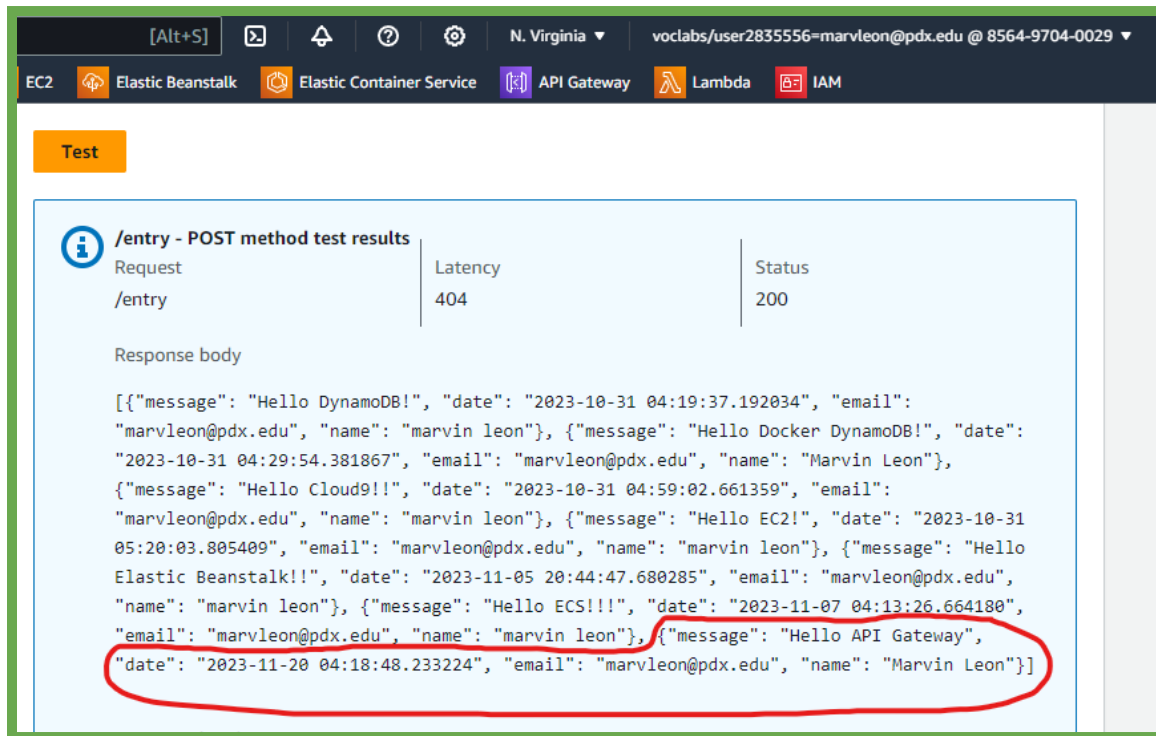
**Entries**

marvin leon <marvleon@pdx.edu>  
signed on 2023-10-31 04:19:37.192034  
Hello DynamoDB!

---

Marvin Leon <marvleon@pdx.edu>  
signed on 2023-10-31 04:29:54.381867  
Hello Docker DynamoDB!

## 8.2.12 API endpoint for signing



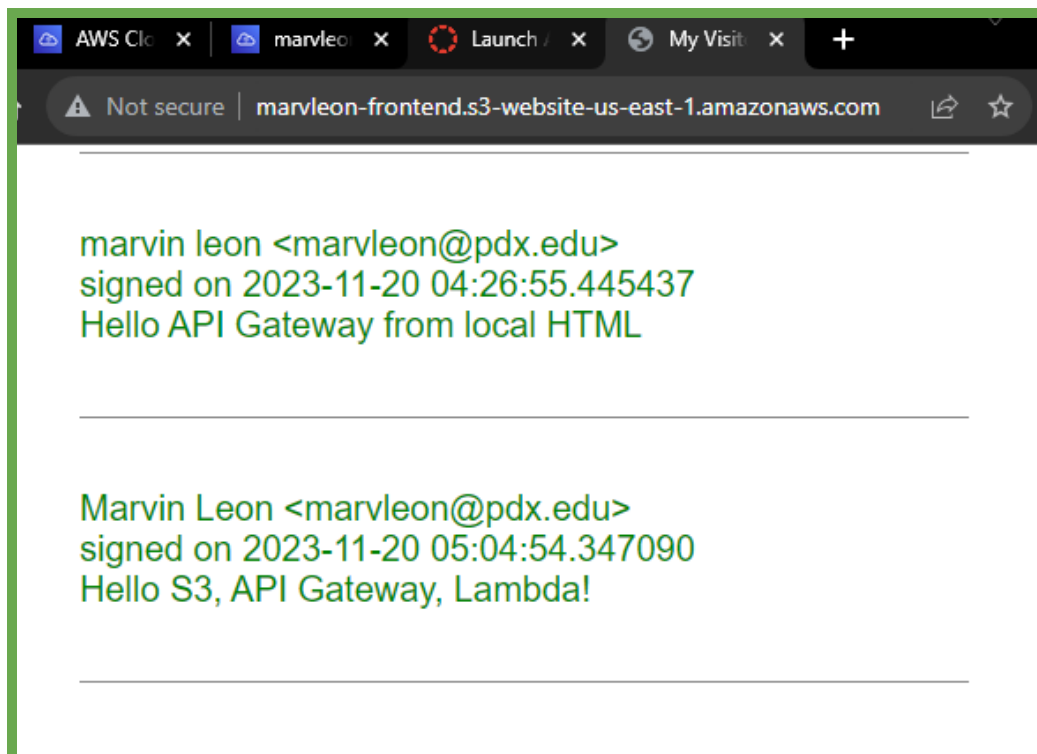
The screenshot shows the AWS API Gateway console. At the top, there's a navigation bar with services like EC2, Elastic Beanstalk, Elastic Container Service, API Gateway, Lambda, and IAM. Below this, there's a 'Test' button. The main content area displays the test results for the `/entry` endpoint using the POST method. It shows a request path of `/entry`, a latency of 404, and a status of 200. The response body is a JSON array of objects, each containing a message, date, and email. The last object in the array is circled in red: `{"message": "Hello API Gateway", "date": "2023-11-20 04:18:48.233224", "email": "marvleon@pdx.edu", "name": "Marvin Leon"}`.

Request	Latency	Status
<code>/entry</code>	404	200

Response body

```
[{"message": "Hello DynamoDB!", "date": "2023-10-31 04:19:37.192034", "email": "marvleon@pdx.edu", "name": "marvin leon"}, {"message": "Hello Docker DynamoDB!", "date": "2023-10-31 04:29:54.381867", "email": "marvleon@pdx.edu", "name": "Marvin Leon"}, {"message": "Hello Cloud9!!", "date": "2023-10-31 04:59:02.661359", "email": "marvleon@pdx.edu", "name": "marvin leon"}, {"message": "Hello EC2!", "date": "2023-10-31 05:20:03.805409", "email": "marvleon@pdx.edu", "name": "marvin leon"}, {"message": "Hello Elastic Beanstalk!!", "date": "2023-11-05 20:44:47.680285", "email": "marvleon@pdx.edu", "name": "marvin leon"}, {"message": "Hello ECS!!!", "date": "2023-11-07 04:13:26.664180", "email": "marvleon@pdx.edu", "name": "marvin leon"}, {"message": "Hello API Gateway", "date": "2023-11-20 04:18:48.233224", "email": "marvleon@pdx.edu", "name": "Marvin Leon"}]
```

## 8.2.16 Configure and Deploy the Frontend



The screenshot shows a web browser with the address `marvleon-frontent.s3-website-us-east-1.amazonaws.com`. The page displays two lines of text, each preceded by a horizontal line. The first line is: `marvin leon <marvleon@pdx.edu>`  
`signed on 2023-11-20 04:26:55.445437`  
`Hello API Gateway from local HTML`. The second line is: `Marvin Leon <marvleon@pdx.edu>`  
`signed on 2023-11-20 05:04:54.347090`  
`Hello S3, API Gateway, Lambda!`.

---

marvin leon <marvleon@pdx.edu>  
signed on 2023-11-20 04:26:55.445437  
Hello API Gateway from local HTML

---

Marvin Leon <marvleon@pdx.edu>  
signed on 2023-11-20 05:04:54.347090  
Hello S3, API Gateway, Lambda!

## 8.2g Cloud Functions API Gateway Guestbook

### 8.2.10 Create the API Gateway

```
marvleon@cloudshell:~/code/cs430-src/06_gcp_restapi_cloudfunctions (cloud-leon-marvleon)$  
ll  
apiConfig: projects/156874191619/locations/global/apis/gbapi/configs/gbapiconfig  
createTime: '2023-11-20T06:16:07.834467217Z'  
defaultHostname: gbapigw-202eucxv.uc.gateway.dev  
displayName: gbapigw  
name: projects/cloud-leon-marvleon/locations/us-central1/gateways/gbapigw  
state: ACTIVE  
updateTime: '2023-11-20T06:20:06.886944981Z'  
marvleon@cloudshell:~/code/cs430-src/06_gcp_restapi_cloudfunctions (cloud-leon-marvleon)$
```


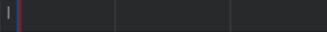

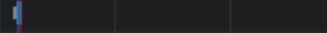

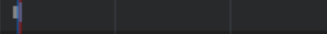




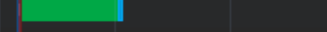
### 8.2.11 Test the API via Python Requests (GET)

```
>>> resp = requests.get('https://gbapigw-202eucxv.uc.gateway.dev/entries')  
>>> data = resp.json()  
>>> for entry in data:  
...     print("Name:", entry["name"])  
...     print("Email:", entry["email"])  
...     print("Date:", entry["date"])  
...     print("Message:", entry["message"])  
...     print("----")  
...  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-10-31 06:46:42.377145+00:00  
Message: Hello Compute Engine!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-10-31 05:55:05.720587+00:00  
Message: Hello Datastore!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-11-05 21:06:01.565336+00:00  
Message: Hello App Engine!!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-10-31 06:39:15.348048+00:00  
Message: Hello Cloud Shell!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-11-14 05:08:16.292588+00:00  
Message: hello Kubernetes!  
----  
Name: Marvin Leon  
Email: marvleon@pdx.edu  
Date: 2023-10-31 06:29:57.905500+00:00  
Message: Hello Docker Datastore!!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-11-07 04:57:35.133824+00:00  
Message: Hello Cloud Run!!  
----  
Name: marvin leon  
Email: marvleon@pdx.edu  
Date: 2023-11-14 06:00:34.891464+00:00  
Message: Hello Cloud Build!!!!!!  
----  
>>>
```

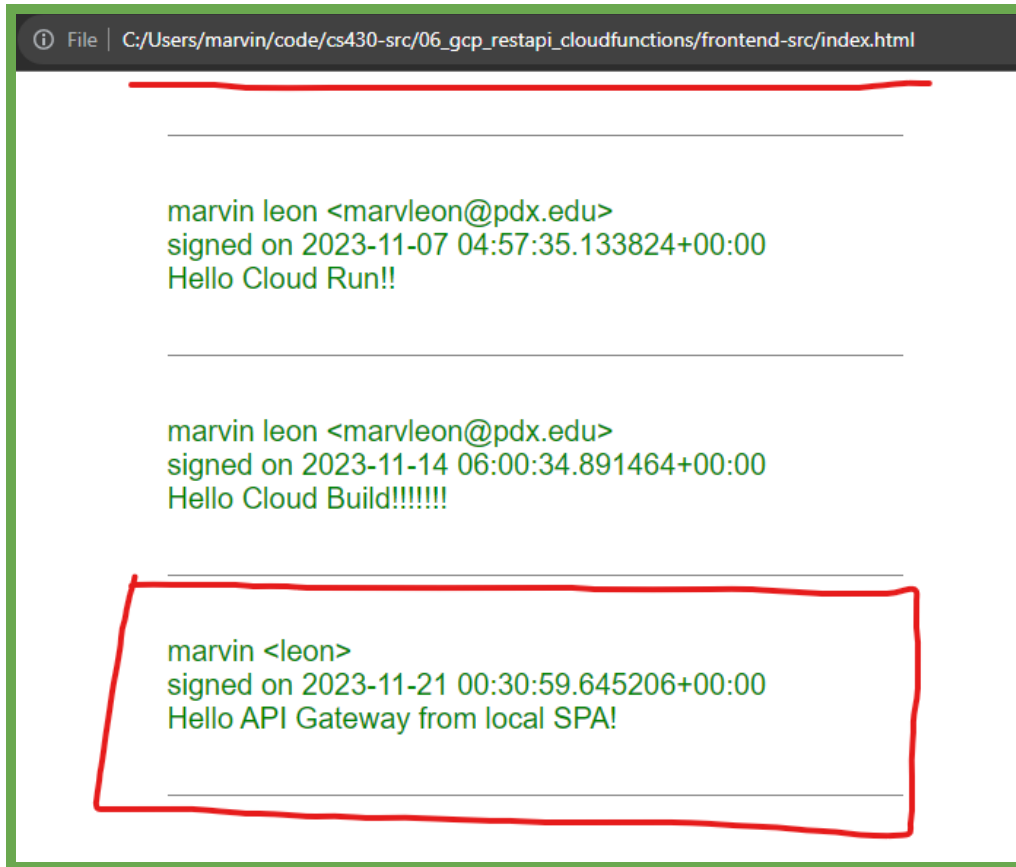
## 8.2.12 Test the API via Python Requests (POST)

```
>>> import requests
>>> resp = requests.get('https://gbapigw-202eucxv.uc.gateway.dev/entries')
>>> data = resp.json()
>>> import json
>>> mydict = {
...     'name' : 'Marvin Leon',
...     'email' : 'marvleon@pdx.edu',
...     'message' : 'Hello Cloud Function from Python Requests!'
... }
>>> resp = requests.post('https://gbapigw-202eucxv.uc.gateway.dev/entry', json=mydict)
>>> resp.status_code
200
>>> resp.headers
{'content-type': 'application/json', 'access-control-allow-origin': '*', 'function-execution-id': 'aes66c
i4xq8o', 'x-cloud-trace-context': 'e6f1d5f644069e253e602301134d3c49;o=1', 'alt-svc': 'h3=":443"; ma=25920
00,h3-29=":443"; ma=2592000, h3=":443"; ma=2592000,h3-29=":443"; ma=2592000', 'Date': 'Tue, 21 Nov 2023 0
0:00:48 GMT', 'Server': 'Google Frontend', 'Content-Length': '1214'}
>>> resp.text
'[{ "name": "marvin leon", "email": "marvleon@pdx.edu", "date": "2023-10-31 06:46:42.377145+00:00", "messa
ge": "Hello Compute Engine!!"}, {"name": "marvin leon", "email": "marvleon@pdx.edu", "date": "2023-10-31 0
5:55:05.720587+00:00", "message": "Hello Datastore!!"}, {"name": "marvin leon", "email": "marvleon@pdx.edu
", "date": "2023-11-05 21:06:01.565336+00:00", "message": "Hello App Engine!!"}, {"name": "marvin leon",
"email": "marvleon@pdx.edu", "date": "2023-10-31 06:39:15.348048+00:00", "message": "Hello Cloud Shell!!"}
, {"name": "marvin leon", "email": "marvleon@pdx.edu", "date": "2023-11-14 05:08:16.292588+00:00", "messa
ge": "hello Kubernetes!!"}, {"name": "Marvin Leon", "email": "marvleon@pdx.edu", "date": "2023-11-21 00:00
:47.773778+00:00", "message": "Hello Cloud Function from Python Requests!!"} {"name": "Marvin Leon", "ema
il": "marvleon@pdx.edu", "date": "2023-10-31 06:29:57.905500+00:00", "message": "Hello Docker Datastore!!
"}, {"name": "marvin leon", "email": "marvleon@pdx.edu", "date": "2023-11-07 04:57:35.133824+00:00", "mes
sage": "Hello Cloud Run!!"}, {"name": "marvin leon", "email": "marvleon@pdx.edu", "date": "2023-11-14 06:
00:34.891464+00:00", "message": "Hello Cloud Build!!!!!!"}]]'
>>>
```

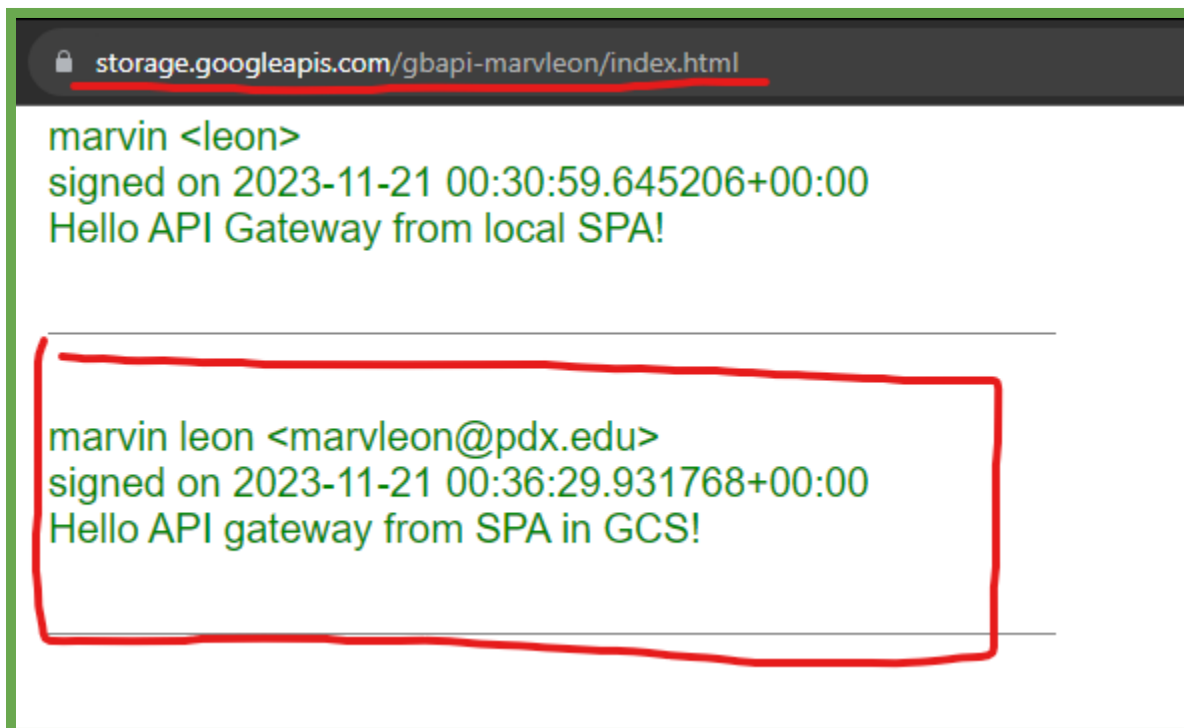
## 8.2.15 Version #1: Local file system

Name	Status	Type	Initiator	Size	Time	Waterfall
 index.html	200	docum...	Other	876 B	2 ms	
 style.css	200	stylesh...	<a href="#">index.html:5</a>	574 B	5 ms	
 guestbook.js	200	script	<a href="#">index.html:6</a>	2.4 kB	5 ms	
 entries	200	fetch	<a href="#">guestbook.js:68</a>	383 B	207 ms	
 entries	200	preflight	Preflight 	0 B	87 ms	

marvleon



## 8.2.16 Google Cloud Storage bucket



## 8.3g OAuth2 Guestbook

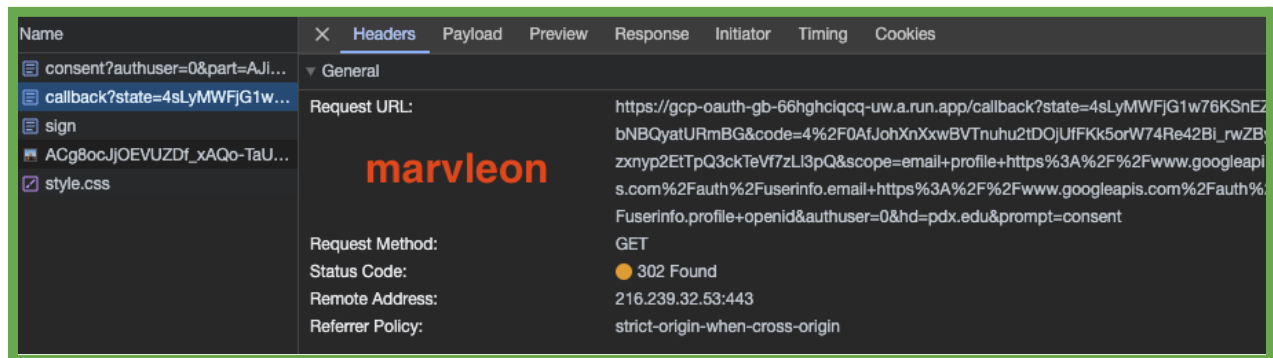
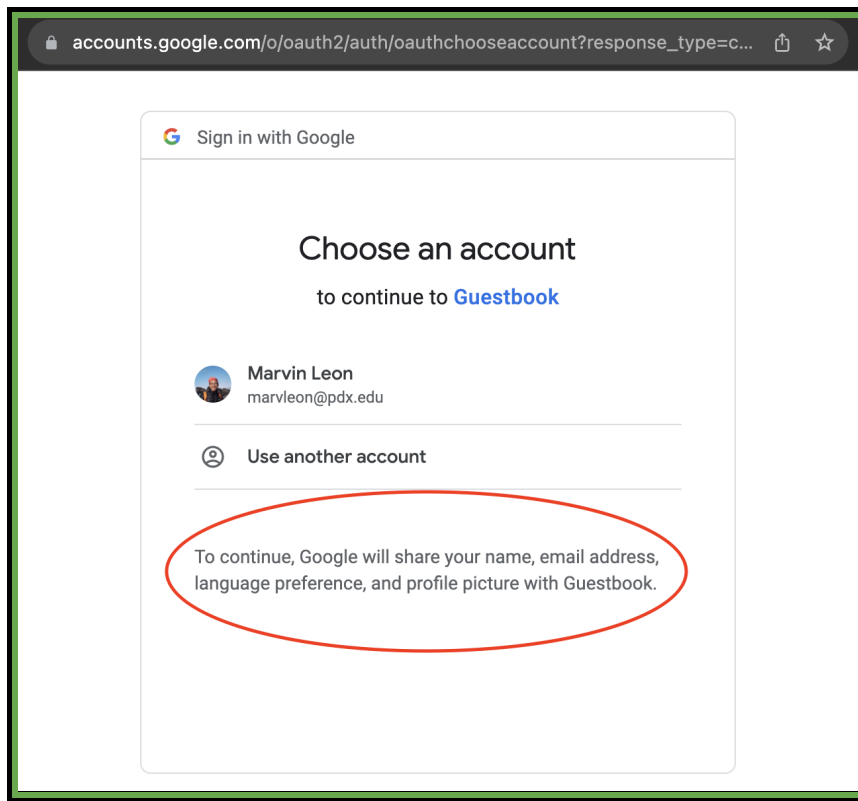
### 8.3.14 Visit the application

Name	×	Headers	Preview	Response	Initiator	Timing	Cookies
sign	▼	General					
auth?response_type=code&cli...		Request URL:		https://gcp-oauth-gb-66hghciqcq-uw.a.run.app/sign			
identifier?opparams=%253F&...		Request Method:		GET			
m=_b,_tp		Status Code:		● 302 Found			
data:image/svg+xml;...		Remote Address:		216.239.36.53:443			
KFOmCnqEu92Fr1Mu4mxKKT...		Referrer Policy:		strict-origin-when-cross-origin			
4UaGrENHsxJIGDuGo1OIII3O...							

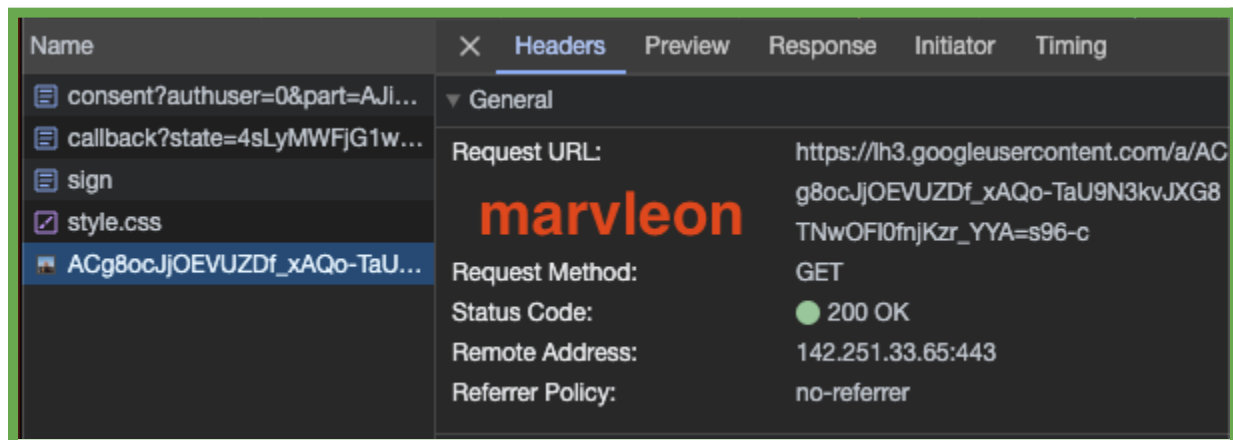
Name	×	Headers	Payload	Preview	Response	Initiator	Timing	Cookies
sign	▼	General						
auth?response_type=code&cli...		Request URL:		https://accounts.google.com/o/oauth2/auth?response_type=code&client_id=156874191619-cf9s4j0q36den5drb59bpkeq25rj5tfn.apps.googleusercontent.com&redirect_uri=https%3A%2F%2Fgcp-oauth-gb-66hghciqcq-uw.a.run.app%2Fcallback&scope=https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.profile&state=snfAgD0ipPtNaVSa14on51BCLp2zml&prompt=login				
identifier?opparams=%253F&...		Request Method:		GET				
m=_b,_tp		Status Code:		● 302 Found				
data:image/svg+xml;...		Remote Address:		142.250.69.205:443				
KFOmCnqEu92Fr1Mu4mxKKT...		Referrer Policy:		strict-origin-when-cross-origin				
4UaGrENHsxJIGDuGo1OIII3O...								
KFOICnqEu92Fr1MmEU9fBBc...								
4UabrENHsxJIGDuGo1OIIU9...								
m=byfTOb,IsjVmc,LEikZe								
m=n73qwf,SCuOPb,IZT63,vfu...								
m=itDFwf,Rusgnf,Ctsu,UPKV3...								
m=RqjULd								
m=ZwDk9d,RMhBfe								

```
token = google.fetch_token(token_url,  
    client_secret=client_secret,  
    authorization_response=request.url)
```






/sign



### 8.3.16 Removing access

Google Account settings

?



←

How Google helps you sign in to Guestbook

Sign in with Google

You use Sign in with Google to sign in to your Guestbook account. Google uses your name, email address, and profile picture to securely sign you in.  
[Learn more](#) ?

Access given on:

40 minutes ago

Access given to:

marvleon

gcp-oauth-gb-66hghciqcq-uw.a.run.app ?

If you stop using Sign in with Google

If Guestbook uses automatic sign-in, Google will no longer automatically sign you in to Guestbook

Stop using Sign in with Google

Guestbook uses Google Account sign-in prompts to offer a faster way to sign in

To make changes, go to [Settings](#)

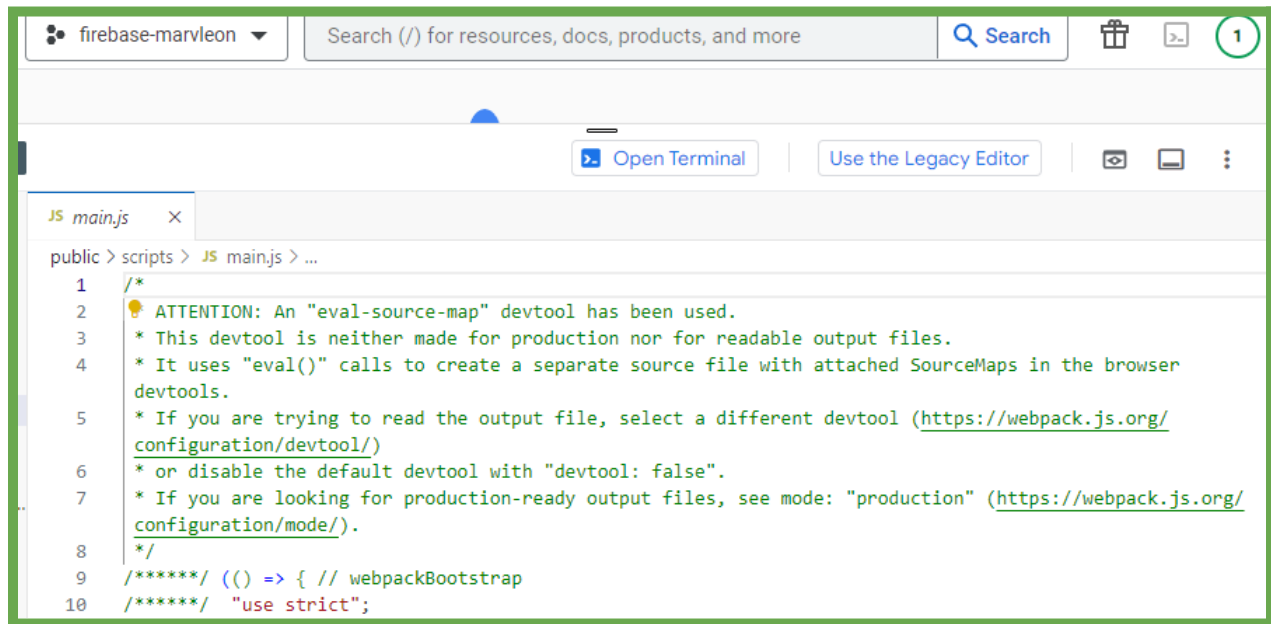
## 8.4g Firebase

### 8.4.4 Authentication setup

**What other domains are given access to this Firebase project by default?**

localhost, fir-marvleon.firebaseio.com, fir-marvleon.web.app

### 8.4.8 Bundling with Webpack



### 8.4.12 Add authentication

**What missing functions deal with user authentication?**

signIn() signOutUser() initFirebaseAuth() getProfilePicUrl() getUsername() isUserSignedIn()

**What missing functions deal with sending and receiving messages?**

saveMessage(), loadMessages(), saveImageMessage(), saveMessagingDeviceToken(), requestNotificationsPermissions()

### 8.4.13 Update UI

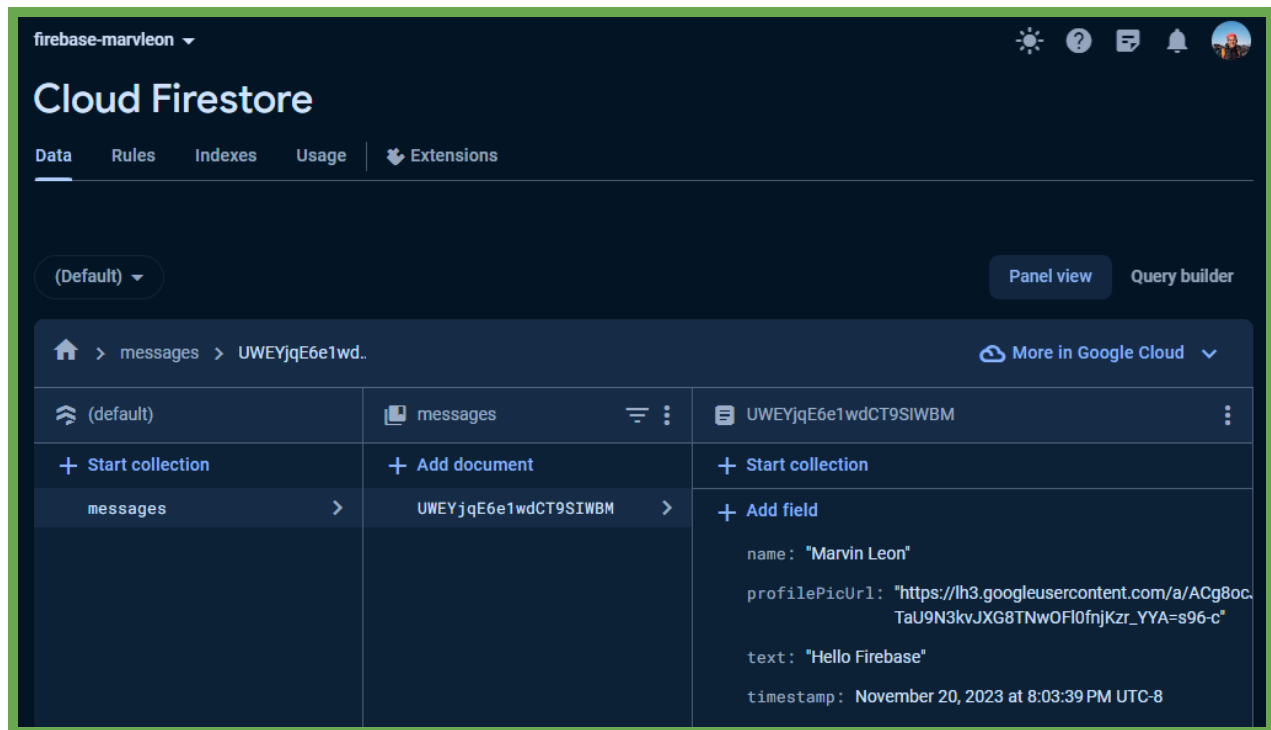
**What are the names of the elements that are hidden when the user is signed out?**

userNameElement, userPicElement, signOutButtonElement

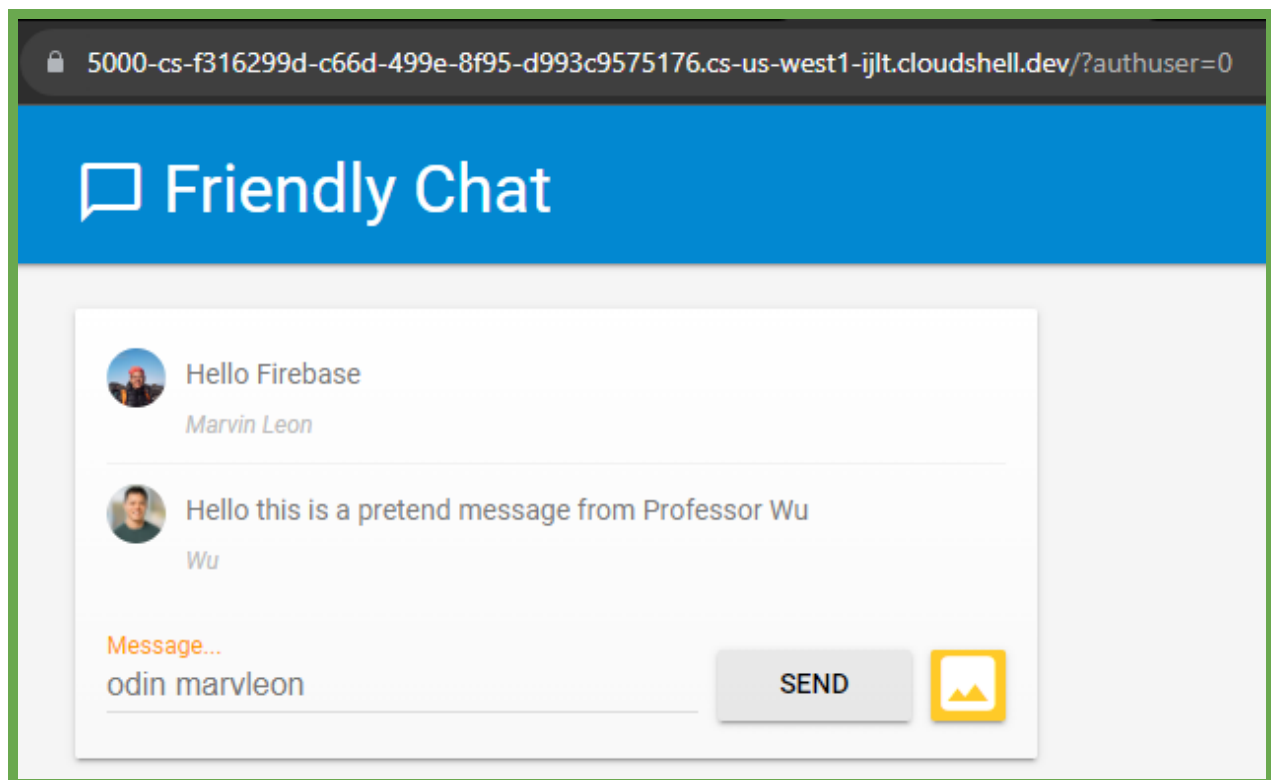
**What is the name of the element that is not hidden when the user is signed out?**

signInButtonElement

### 8.4.16 Test application with text messaging



### 8.4.17 Manual message insertion



## 8.4.18 Add image messaging

**What is the URL of the image that is first shown in the UI as the message is loading?**

<https://www.google.com/images/spin-32.gif?a>

## 8.4.19 Test application with image messaging

**How do the fields in an image document differ from that of the text document?**

Image document includes an imageUrl and storageUri

**What URL and storage location can the image be found at?**

**imageUrl:**

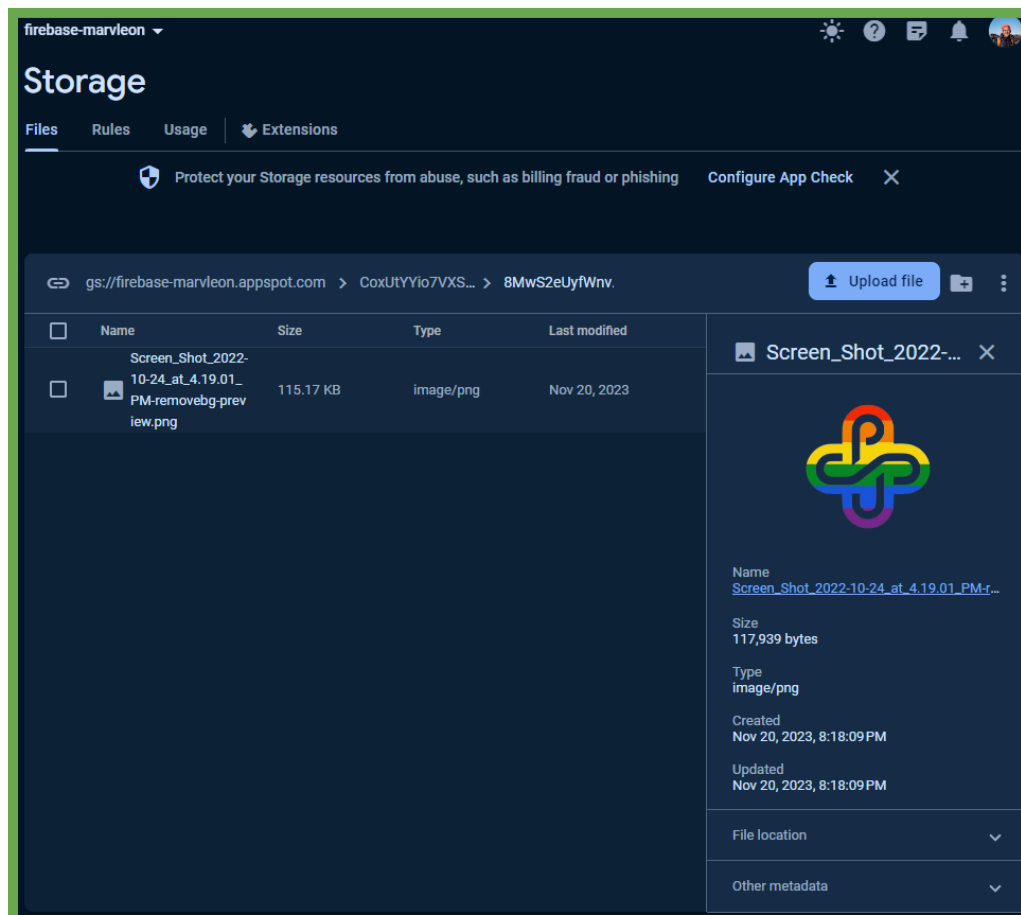
["https://firebasestorage.googleapis.com/v0/b/firebase-marvleon.appspot.com/o/CoxUtYYio7VXS EA9UMzzSLXkUwn2%2F8MwS2eUyfWnv2epo3ORJ%2FScreen\\_Shot\\_2022-10-24\\_at\\_4.19.01\\_PM-removebg-preview.png?alt=media&token=386f6480-6ecb-45e1-981f-9e3410151575"](https://firebasestorage.googleapis.com/v0/b/firebase-marvleon.appspot.com/o/CoxUtYYio7VXS EA9UMzzSLXkUwn2%2F8MwS2eUyfWnv2epo3ORJ%2FScreen_Shot_2022-10-24_at_4.19.01_PM-removebg-preview.png?alt=media&token=386f6480-6ecb-45e1-981f-9e3410151575)

**storageUri:**

["CoxUtYYio7VXS EA9UMzzSLXkUwn2/8MwS2eUyfWnv2epo3ORJ/Screen\\_Shot\\_2022-10-24\\_at\\_4.19.01\\_PM-removebg-preview.png"](gs://firebase-marvleon.appspot.com/CoxUtYYio7VXS EA9UMzzSLXkUwn2/8MwS2eUyfWnv2epo3ORJ/Screen_Shot_2022-10-24_at_4.19.01_PM-removebg-preview.png)

**storageUri:**

[gs://firebase-marvleon.appspot.com/CoxUtYYio7VXS EA9UMzzSLXkUwn2/8MwS2eUyfWnv2epo3ORJ/Screen\\_Shot\\_2022-10-24\\_at\\_4.19.01\\_PM-removebg-preview.png](gs://firebase-marvleon.appspot.com/CoxUtYYio7VXS EA9UMzzSLXkUwn2/8MwS2eUyfWnv2epo3ORJ/Screen_Shot_2022-10-24_at_4.19.01_PM-removebg-preview.png)



## 8.4.20 Deploy application

**What directory is the application going to be served from?**

./public

