CS356 -lab06:2g - Branden-Codd, 940428984

1. Cloud Run

- No screenshots or observations

2. Application

- No screenshots or observations

3. templates/proxy.html

```
<input id=url_input></input>
        <script>
                var input = document.getElementById("url_input");
input.addEventListener("keyup", function(event) {
          if (event.keyCode === 13) {
                    event.preventDefault();
                    url = input.value
                    window.location.href = "/codd-secret-firewall-bypass-proxy?url=" + url;
                }
});
        </script>
~
~
~
~
```

4. app.py

```
from flask import Flask, redirect, request, url_for, render_template
import requests
import os

app = Flask(__name__)

@app.route('/')
def page():
  return "<html><body><h1>Hello World!</h1>There is nothing to see here so move along.</body></html>"

@app.route('/codd-secret-firewall-bypass-proxy')
def proxy():
  if 'url' not in request.args:
    return render_template('proxy.html')
  else:
    return requests.get(request.args['url']).text

if __name__ == '__main__':
    PORT = (os.getenv('PORT')) if os.getenv('PORT') else 8080
    app.run(host='0.0.0.0', port=PORT, debug=True)
~
~
~
```

5. requirements.txt

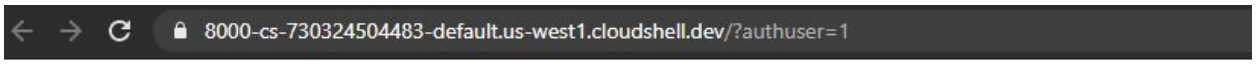
```
flask
requests
gunicorn
~
~
~
```

6. Dockerfile

```
FROM python:3.7-slim
MAINTAINER Branden Codd "coddb@sou.edu"
COPY . /app
WORKDIR /app
RUN pip install -r requirements.txt
CMD gunicorn --bind :$PORT --workers 1 --threads 8 app:app

~
~
~
~
```

7. Build and test in Cloud Shell



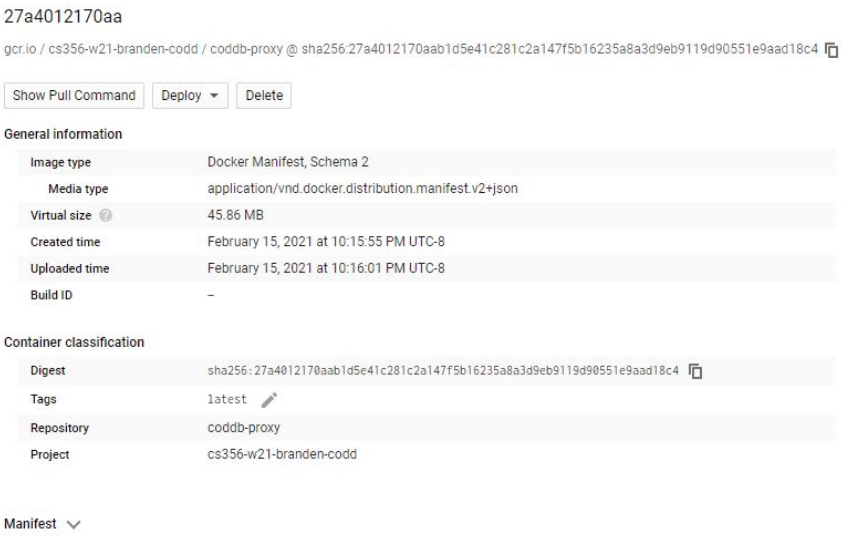
Hello World!

There is nothing to see here so move along.

8. Cloud Build and Container Registry

- When finished, list the container images in the registry.

- Show the size of the container in the UI and take a screenshot of it for your lab notebook:



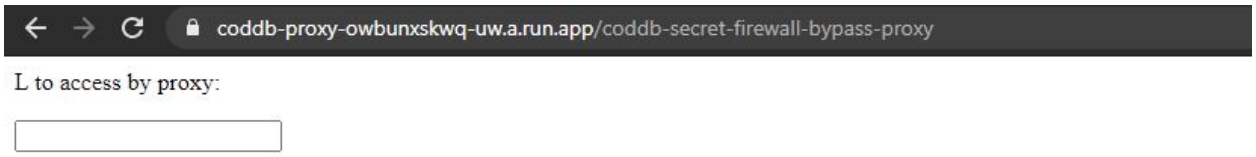
9. Deploy to Cloud Run

- You should get back a URL that has your container running on it:

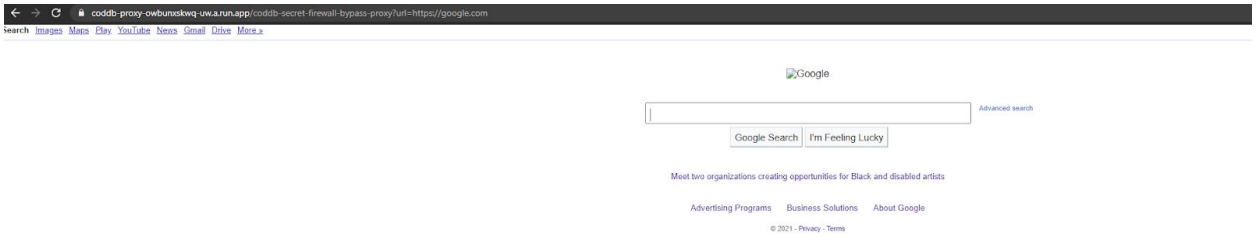
```
Done.
Service [coddb-proxy] revision [coddb-proxy-00001-goh] has been deployed and is serving 100 percent of traffic.
Service URL: https://coddb-proxy-owbunxskwq-uw.a.run.app
coddb@cloudshell:~/cs356-cloud-files/05_gcp_datastore/coddb-proxy (cs356-w21-branden-codd)$
```

10. Visit the site

- Visit the secret URL that gives you proxy access and take a screenshot of it that includes the URL for your lab notebook.



- Then, screenshot the result that is returned when https://google.com is entered as the URL to access



- Attempt to access the Metadata service associated with the VM that runs your container by entering the following URLs into the proxy http://169.254.169.254/computeMetadata and http://169.254.169.254/computeMetadata/v1. Read this article and this article. Identify the vulnerability in your lab notebook that Google has prevented.
    - Google has prevented an SSRF vulnerability