

1. TCP 1 (netstat, lsof, nc)

- man netstat
 - determine the 4 flags that you can pass the tool to list all TCP sockets in a LISTEN state on an IPv4 address and the program that is using it.
 - -t -l -p -4

```
branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$ sudo netstat -tlp4
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 localhost:domain        0.0.0.0:*               LISTEN      415/systemd-resolve
tcp        0      0 localhost:ipp           0.0.0.0:*               LISTEN      34098/cupsd
tcp        0      0 localhost:38943         0.0.0.0:*               LISTEN      563/containerd
branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$
```

- For port numbers that are named, examine /etc/services and find the port number that corresponds to it. Include this mapping in your lab notebook.
 - domain

```
domain      53/tcp      # Domain Name Server
domain      53/udp
```

- ipp

```
ipp         631/tcp     # Internet Printing Protocol
```

- For ports that only have a number, what service might it be providing based on the name of the program that is being run?
 - 38943
 - The name of the program is containerd, its purpose is to abstract away syscalls or OS specific functionality to run containers on linux, windows, solaris, or other OSes

- find the number of open descriptors using the following command sudo lsof | wc -l

```
branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$ sudo lsof | wc -l
lsof: WARNING: can't stat() fuse.gvfsd-fuse file system /run/user/1000/gvfs
Output information may be incomplete.
lsof: WARNING: can't stat() fuse file system /run/user/1000/doc
Output information may be incomplete.
32581
branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$
```

- Use the -i and the -s flag of lsof to generate a listing that is equivalent to the one generated with netstat previously and include it in your lab notebook

```

branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$ sudo lsof -i -s
COMMAND  PID    USER      FD  TYPE DEVICE SIZE NODE NAME
systemd-r 415   systemd-resolve 12u IPv4 19846      UDP localhost:domain
systemd-r 415   systemd-resolve 13u IPv4 19847      TCP localhost:domain (LISTEN)
avahi-dae 454     avahi      12u IPv4 19356      UDP *:mdns
avahi-dae 454     avahi      13u IPv6 19357      UDP *:mdns
avahi-dae 454     avahi      14u IPv4 19358      UDP *:44258
avahi-dae 454     avahi      15u IPv6 19359      UDP *:58600
NetworkMa 458     root       23u IPv4 189376     UDP branden-VirtualBox:bootpc->_gateway:bootps

container 563     root       8u  IPv4 21504      TCP localhost:38943 (LISTEN)
cupsd     34098   root       6u  IPv6 192087     TCP ip6-localhost:ipp (LISTEN)
cupsd     34098   root       7u  IPv4 192088     TCP localhost:ipp (LISTEN)
cups-brow 34099   root       7u  IPv4 192112     UDP *:631

```

- Examine the man page for nc. Then, on the Ubuntu VM, use the command to connect up to the ssh port of webpages.sou.edu.
 - Connected on port 22 using the command nc -z -v webpages.sou.edu 1-100
 - Once we know the port could just nc webpages.sou.edu 22

```

branden@branden-VirtualBox:~/cs356-w21-branden-codd-940428984$ nc -z -v webpages.sou.edu 1-100
nc: connect to webpages.sou.edu port 1 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 2 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 3 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 4 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 5 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 6 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 7 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 8 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 9 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 10 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 11 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 12 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 13 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 14 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 15 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 16 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 17 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 18 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 19 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 20 (tcp) failed: Connection refused
nc: connect to webpages.sou.edu port 21 (tcp) failed: Connection refused
Connection to webpages.sou.edu 22 port [tcp/ssh] succeeded!
nc: connect to webpages.sou.edu port 23 (tcp) failed: Connection refused

```

2. TCP 2 (iperf)

- Create 4 VMs: one in us-west1-b, one in the US East, one in Australia, and one in Europe.

Google Cloud Platform VM instances

Filter VM instances

Name	Zone	Recommendation	In use by	Internal IP	External IP	Network	Connect
Instance-1	us-west1-b			10.138.0.9 (nic0)	35.203.150.63	default	SSH
Instance-2	us-east1-b			10.142.0.2 (nic0)	35.243.240.19	default	SSH
Instance-3	australia-southeast1-b			10.152.0.2 (nic0)	34.116.127.221	default	SSH
Instance-4	europe-north1-a			10.166.0.2 (nic0)	35.228.45.111	default	SSH

Virtual machines

- VM instances
- Instance templates
- Sole-tenant nodes
- Machine images
- TPUs
- Migrate for Compute Engine
- Committed use discounts

- Then ssh into each one and install iperf:

```
ssh.cloud.google.com/projects/c356-w21-branden-codd/zones/us-west1-b/instances/instance-1?useAdminProxy=true&authuser=1&...
Get:127 http://us-west1-gce.archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [1448 B]
Get:128 http://us-west1-gce.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [224 B]
Get:129 http://us-west1-gce.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:130 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [114 kB]
Get:131 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [14.8 kB]
Get:132 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [392 B]
Get:133 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [527 kB]
Get:134 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [71.7 kB]
Get:135 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [9568 B]
Get:136 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [10.4 kB]
Get:137 http://security.ubuntu.com/ubuntu focal-security/multiverse Translation-en [2876 B]
Get:138 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [284 B]
Get:139 http://archive.canonical.com/ubuntu focal/partner amd64 Packages [836 B]
Get:140 http://archive.canonical.com/ubuntu focal/partner Translation-en [384 B]
Fetched 17.4 MB in 3s (5084 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
codd@instance-1:~$ sudo apt install iperf -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libunmount
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  iperf
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 76.5 kB of archives.
After this operation, 213 kB of additional disk space will be used.
Get:1 http://us-west1-gce.archive.ubuntu.com/ubuntu focal/universe amd64 iperf amd64 2.0.13-dfsg1-1build1 [76.5 kB]
Fetched 76.5 kB in 0s (3309 kB/s)
Selecting previously unselected package iperf.
(Reading database ... 63263 files and directories currently installed.)
Preparing to unpack .../iperf_2.0.13-dfsg1-1build1_amd64.deb ...
Unpacking iperf (2.0.13-dfsg1-1build1) ...
Setting up iperf (2.0.13-dfsg1-1build1) ...
Processing triggers for man-db (2.9.1-1) ...
codd@instance-1:~$

ssh.cloud.google.com/projects/c356-w21-branden-codd/zones/us-east1-b/instances/instance-2?useAdminProxy=true&authuser=1&...
Get:128 http://us-east1-gce.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [224 B]
Get:129 http://us-east1-gce.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:130 http://archive.canonical.com/ubuntu focal/partner amd64 Packages [836 B]
Get:131 http://archive.canonical.com/ubuntu focal/partner Translation-en [384 B]
Get:132 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [114 kB]
Get:133 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [14.8 kB]
Get:134 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [392 B]
Get:135 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [527 kB]
Get:136 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [71.7 kB]
Get:137 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [9568 B]
Get:138 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [10.4 kB]
Get:139 http://security.ubuntu.com/ubuntu focal-security/multiverse Translation-en [2876 B]
Get:140 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [284 B]
Fetched 17.4 MB in 3s (5245 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
codd@instance-2:~$ sudo apt install iperf -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libunmount
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  iperf
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 76.5 kB of archives.
After this operation, 213 kB of additional disk space will be used.
Get:1 http://us-east1-gce.archive.ubuntu.com/ubuntu focal/universe amd64 iperf amd64 2.0.13-dfsg1-1build1 [76.5 kB]
Fetched 76.5 kB in 0s (827 kB/s)
Selecting previously unselected package iperf.
(Reading database ... 63263 files and directories currently installed.)
Preparing to unpack .../iperf_2.0.13-dfsg1-1build1_amd64.deb ...
Unpacking iperf (2.0.13-dfsg1-1build1) ...
Setting up iperf (2.0.13-dfsg1-1build1) ...
Processing triggers for man-db (2.9.1-1) ...
codd@instance-2:~$

ssh.cloud.google.com/projects/c356-w21-branden-codd/zones/australia-southeast1-b/instances/instance-3?useAdminProxy=true&au...
Get:129 http://australia-southeast1-gce.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [148 B]
Get:130 http://archive.canonical.com/ubuntu focal/partner amd64 Packages [836 B]
Get:131 http://archive.canonical.com/ubuntu focal/partner Translation-en [384 B]
Get:132 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [114 kB]
Get:133 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [14.8 kB]
Get:134 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f Metadata [392 B]
Get:135 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [527 kB]
Get:136 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en [71.7 kB]
Get:137 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Metadata [9568 B]
Get:138 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [10.4 kB]
Get:139 http://security.ubuntu.com/ubuntu focal-security/multiverse Translation-en [2876 B]
Get:140 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 c-n-f Metadata [284 B]
Fetched 17.4 MB in 3s (5056 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
codd@instance-3:~$ sudo apt install iperf -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libunmount
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  iperf
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 76.5 kB of archives.
After this operation, 213 kB of additional disk space will be used.
Get:1 http://australia-southeast1-gce.archive.ubuntu.com/ubuntu focal/universe amd64 iperf amd64 2.0.13-dfsg1-1build1 [76.5 kB]
Fetched 76.5 kB in 0s (2596 kB/s)
Selecting previously unselected package iperf.
(Reading database ... 63263 files and directories currently installed.)
Preparing to unpack .../iperf_2.0.13-dfsg1-1build1_amd64.deb ...
Unpacking iperf (2.0.13-dfsg1-1build1) ...
Setting up iperf (2.0.13-dfsg1-1build1) ...
Processing triggers for man-db (2.9.1-1) ...
codd@instance-3:~$

ssh.cloud.google.com/projects/c356-w21-branden-codd/zones/europe-north1-a/instances/instance-4?useAdminProxy=true&authuser...
Get:133 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-updates/multiverse Translation-en [148 B]
Get:134 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 c-n-f Metadata [504 B]
Get:135 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/main amd64 c-n-f Metadata [112 B]
Get:136 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/restricted amd64 c-n-f Metadata [116 B]
Get:137 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [4032 B]
Get:138 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/universe Translation-en [1448 B]
Get:139 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/universe amd64 c-n-f Metadata [224 B]
Get:140 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 17.4 MB in 4s (4046 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
codd@instance-4:~$ sudo apt install iperf -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  libunmount
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  iperf
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 76.5 kB of archives.
After this operation, 213 kB of additional disk space will be used.
Get:1 http://europe-north1-a-gce.clouds.archive.ubuntu.com/ubuntu focal/universe amd64 iperf amd64 2.0.13-dfsg1-1build1 [76.5 kB]
Fetched 76.5 kB in 0s (337 kB/s)
Selecting previously unselected package iperf.
(Reading database ... 63263 files and directories currently installed.)
Preparing to unpack .../iperf_2.0.13-dfsg1-1build1_amd64.deb ...
Unpacking iperf (2.0.13-dfsg1-1build1) ...
Setting up iperf (2.0.13-dfsg1-1build1) ...
Processing triggers for man-db (2.9.1-1) ...
codd@instance-4:~$
```

3. Throughput tests

- Show a screenshot of the measured bandwidth available between your us-west1-b VM and each of the other Compute Engine VMs. Explain the relative differences (or lack thereof) in your results.

```

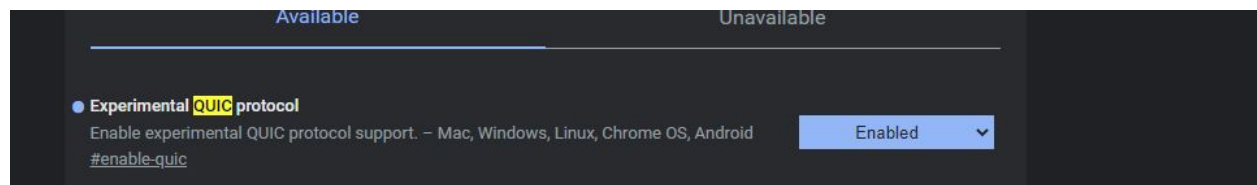
codd@instance-1:~$ iperf -c 35.243.240.19 -p 80
-----
Client connecting to 35.243.240.19, TCP port 80
TCP window size: 85.0 KByte (default)
-----
[ 3] local 10.138.0.9 port 44196 connected with 35.243.240.19 port 80
[ ID] Interval      Transfer    Bandwidth
[ 3] 0.0-10.1 sec   304 MBytes  254 Mbits/sec
codd@instance-1:~$ iperf -c 34.116.127.221 -p 80
-----
Client connecting to 34.116.127.221, TCP port 80
TCP window size: 85.0 KByte (default)
-----
[ 3] local 10.138.0.9 port 38714 connected with 34.116.127.221 port 80
[ ID] Interval      Transfer    Bandwidth
[ 3] 0.0-10.0 sec   115 MBytes  96.4 Mbits/sec
codd@instance-1:~$ iperf -c 35.228.46.111 -p 80
-----
Client connecting to 35.228.46.111, TCP port 80
TCP window size: 85.0 KByte (default)
-----
[ 3] local 10.138.0.9 port 56756 connected with 35.228.46.111 port 80
[ ID] Interval      Transfer    Bandwidth
[ 3] 0.0-10.1 sec   113 MBytes  93.8 Mbits/sec
codd@instance-1:~$

```

- The bandwidth between us-west1-b and australia/europe is fairly similar at 96.4 Mbits/sec and 93.8 Mbits/sec.
- The bandwidth between us-west1-b and us-east1-b was more than double the other 2 at 254 Mbits/sec

4. HTTP #3 (Browser Tools)

- Bring up an Incognito window (Ctrl+Shift+N). Then, in the address bar, visit <chrome://flags>. If the option exists, find and enable QUIC (HTTP 3).



5. Developer tools

- What is the URL being requested?
 - `http://google.com/`
- What are the Host: (HTTP 1.1) or :authority: (HTTP 2.0) headers sent by the browser? What is the User-Agent: HTTP header that is sent?
 - `google.com`

```
GET / HTTP/1.1
Host: google.com
Connection: keep-alive
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/87.0.4280.141 Safari/537.36
```

- What is the HTTP status code in the response and what does it mean?

Status Code: 🟡 301 Moved Permanently

- This means that the resource requested has been definitively moved to the URL given by the Location headers
- Look up the status code. Show the associated HTTP response header that is sent in conjunction with this status code for the request.

```
▼ Response Headers view parsed
HTTP/1.1 301 Moved Permanently
Location: http://www.google.com/
Content-Type: text/html; charset=UTF-8
Date: Thu, 21 Jan 2021 00:29:19 GMT
Expires: Sat, 20 Feb 2021 00:29:19 GMT
Cache-Control: public, max-age=2592000
Server: gws
Content-Length: 219
X-XSS-Protection: 0
X-Frame-Options: SAMEORIGIN
```

Click on the second request to bring up its connection details. Answer the following questions in your lab notebook.

- What is the URL being requested? Is it using HTTP or HTTPS?

- <http://www.google.com/>
 - Using http
- What is the HTTP status code in the response and what does it mean? Is it different from the first status code? If so, what is the semantic difference?

Status Code: 🟡 302 Found

- 302, the resource requested has been temporarily moved to the URL given by the Location header. This is different from the first code which indicated that it was a permanent move.
- Show the associated HTTP response header that is sent in conjunction with this status code for the request.


```

▼ Response Headers    view parsed
HTTP/1.1 302 Found
Location: https://www.google.com/?gws_rd=ssl
Cache-Control: private
Content-Type: text/html; charset=UTF-8
Date: Thu, 21 Jan 2021 00:29:19 GMT
Server: gws
Content-Length: 231
X-XSS-Protection: 0
X-Frame-Options: SAMEORIGIN
Set-Cookie: 1P_JAR=2021-01-21-00; expires=Sat, 20-Feb-2021 00:29:19 GMT; path=/; domain=.google.com; Secure; SameSite=none

```

Click on the third request to bring up its connection details. Answer the following questions in your lab notebook.

- What is the URL being requested? Is it using HTTP or HTTPS?
 - https://www.google.com/?gws_rd=ssl
 - Using https
- What is the HTTP status code in the response?

Status Code:  200

- Look for an `alt-svc`: HTTP response header. Does the server believe the client can use HTTP3/QUIC?

```
quic=":443";
```

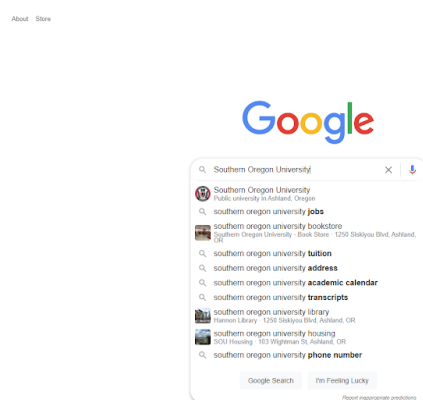
- Quic appears within the HTTP response header. As such i believe the server believes the client can use it.
- Examine the HTTP response headers for cookies. Show the cookies that are set and their associated [SameSite setting](#). What does the setting indicate about the cookies that are set?

```
set-cookie: 1P_JAR=2021-01-21-00; expires=Sat, 20-Feb-2021 00:29:19 GMT; path=/; domain=.google.com; Secure; SameSite=None
set-cookie: NID=207=Fe5FRvIsb4R3m4_K1Ak_1ND3aX9m6aXD3o-hKdmZMSchMWZotNtCjuS86gm9JdiYjhZTtCQMtyTZSU_aWUuwrPumHvwj19joveiEqochRrPsnJFEQdINSV17fyvFBDjyvWVlpLOTCKJC-c-oX0hBorbsLNSbk5K9JY3L-2EivS78; expires=Fri, 23-Jul-2021 00:29:19 GMT; path=/; domain=.google.com; Secure; HttpOnly; SameSite=None
```

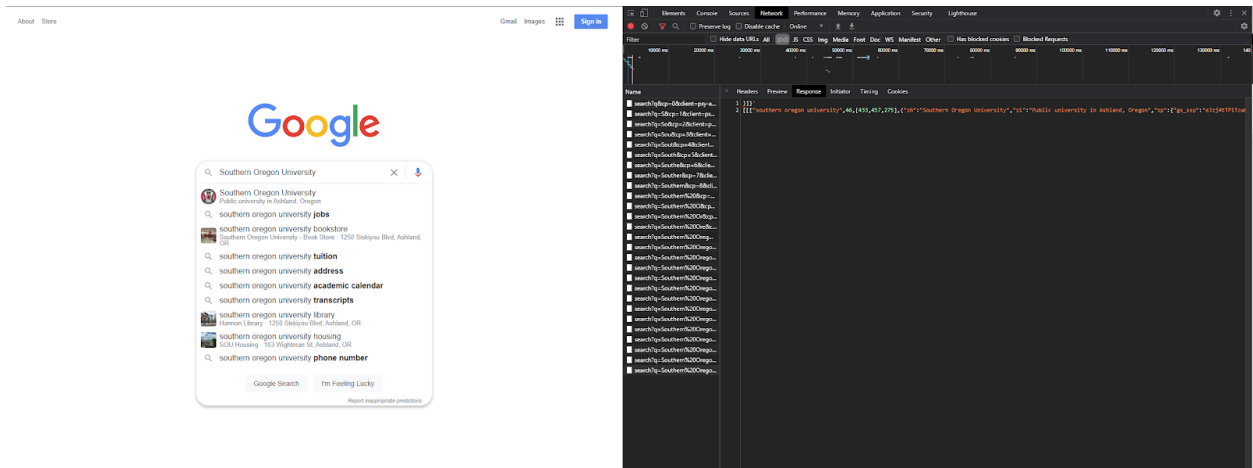
When looking at the SameSite setting we see it is = none. This indicates that all cookies should be protected from external access unless otherwise specified. When SameSite=None attribute is present an additional secure attribute must be used so cross site cookies can only be accessed over an HTTPS connection.

6. Asynchronous HTTP requests

- Show the requests and responses in the listing. Click on the last request sent, then click on the response to see that its payload has returned the data that is then rendered on the search page similar to what is shown below for "rabbid"



The screenshot shows the AWS IAM console with a list of IAM users. The table displays the following columns: Name, Status, Type, Inherited, Size, Last, and MFA-enabled. The list includes users like 'aws-logs', 'aws-metrics', 'aws-logs-2018-08-01', 'aws-logs-2018-08-02', 'aws-logs-2018-08-03', 'aws-logs-2018-08-04', 'aws-logs-2018-08-05', 'aws-logs-2018-08-06', 'aws-logs-2018-08-07', 'aws-logs-2018-08-08', 'aws-logs-2018-08-09', 'aws-logs-2018-08-10', 'aws-logs-2018-08-11', 'aws-logs-2018-08-12', 'aws-logs-2018-08-13', 'aws-logs-2018-08-14', 'aws-logs-2018-08-15', 'aws-logs-2018-08-16', 'aws-logs-2018-08-17', 'aws-logs-2018-08-18', 'aws-logs-2018-08-19', 'aws-logs-2018-08-20', 'aws-logs-2018-08-21', 'aws-logs-2018-08-22', 'aws-logs-2018-08-23', 'aws-logs-2018-08-24', 'aws-logs-2018-08-25', 'aws-logs-2018-08-26', 'aws-logs-2018-08-27', 'aws-logs-2018-08-28', 'aws-logs-2018-08-29', 'aws-logs-2018-08-30', 'aws-logs-2018-09-01', 'aws-logs-2018-09-02', 'aws-logs-2018-09-03', 'aws-logs-2018-09-04', 'aws-logs-2018-09-05', 'aws-logs-2018-09-06', 'aws-logs-2018-09-07', 'aws-logs-2018-09-08', 'aws-logs-2018-09-09', 'aws-logs-2018-09-10', 'aws-logs-2018-09-11', 'aws-logs-2018-09-12', 'aws-logs-2018-09-13', 'aws-logs-2018-09-14', 'aws-logs-2018-09-15', 'aws-logs-2018-09-16', 'aws-logs-2018-09-17', 'aws-logs-2018-09-18', 'aws-logs-2018-09-19', 'aws-logs-2018-09-20', 'aws-logs-2018-09-21', 'aws-logs-2018-09-22', 'aws-logs-2018-09-23', 'aws-logs-2018-09-24', 'aws-logs-2018-09-25', 'aws-logs-2018-09-26', 'aws-logs-2018-09-27', 'aws-logs-2018-09-28', 'aws-logs-2018-09-29', 'aws-logs-2018-09-30', 'aws-logs-2018-10-01', 'aws-logs-2018-10-02', 'aws-logs-2018-10-03', 'aws-logs-2018-10-04', 'aws-logs-2018-10-05', 'aws-logs-2018-10-06', 'aws-logs-2018-10-07', 'aws-logs-2018-10-08', 'aws-logs-2018-10-09', 'aws-logs-2018-10-10', 'aws-logs-2018-10-11', 'aws-logs-2018-10-12', 'aws-logs-2018-10-13', 'aws-logs-2018-10-14', 'aws-logs-2018-10-15', 'aws-logs-2018-10-16', 'aws-logs-2018-10-17', 'aws-logs-2018-10-18', 'aws-logs-2018-10-19', 'aws-logs-2018-10-20', 'aws-logs-2018-10-21', 'aws-logs-2018-10-22', 'aws-logs-2018-10-23', 'aws-logs-2018-10-24', 'aws-logs-2018-10-25', 'aws-logs-2018-10-26', 'aws-logs-2018-10-27', 'aws-logs-2018-10-28', 'aws-logs-2018-10-29', 'aws-logs-2018-10-30', 'aws-logs-2018-10-31', 'aws-logs-2018-11-01', 'aws-logs-2018-11-02', 'aws-logs-2018-11-03', 'aws-logs-2018-11-04', 'aws-logs-2018-11-05',



Southern Oregon University shows up in the response just how rabbids did in the example.