

Thomas Crow  
CS334  
Assignment #1

Exercise 1.1  
(ifconfig instead of ipconfig as this is on a MAC)

```
tbcrow@DigDug ~ % ifconfig en0
en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=6463<RXCSUM, TXCSUM, TS04, TS06, CHANNEL_IO, PARTIAL_CSUM, ZEROINVERT_CSUM>
    ether d4:57:63:cf:25:4b
    inet6 fe80::1c48:6544:917a:ab04%en0 prefixlen 64 secured scopeid 0xb
    inet 192.168.1.192 netmask 0xffffffff broadcast 192.168.1.255
    nd6 options=201<PERFORMNUD,DAD>
    media: autoselect
    status: active
tbcrow@DigDug ~ %
```

Exercise 1.3

```
tbcrow@DigDug ~ % nslookup google.com
Server:      192.168.1.1
Address:     192.168.1.1#53

Non-authoritative answer:
Name:   google.com
Address: 142.250.72.46

tbcrow@DigDug ~ % nslookup -type=ns google.com
Server:      192.168.1.1
Address:     192.168.1.1#53

Non-authoritative answer:
google.com  nameserver = ns1.google.com.
google.com  nameserver = ns2.google.com.
google.com  nameserver = ns4.google.com.
google.com  nameserver = ns3.google.com.

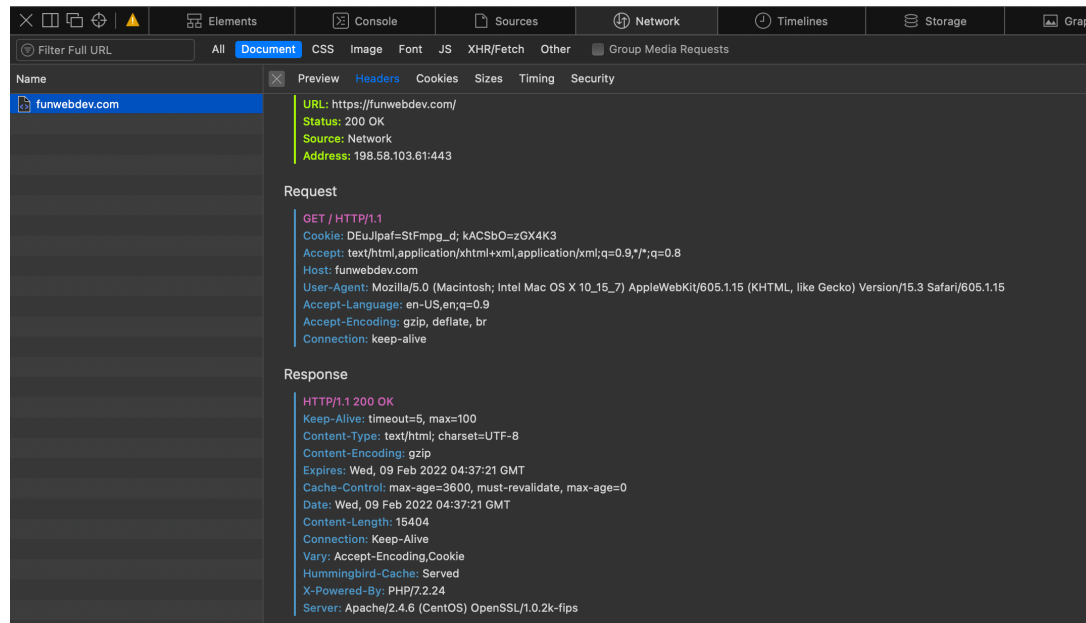
Authoritative answers can be found from:
ns4.google.com internet address = 216.239.38.10
ns4.google.com has AAAA address 2001:4860:4802:38::a
ns3.google.com internet address = 216.239.36.10
ns3.google.com has AAAA address 2001:4860:4802:36::a
ns1.google.com internet address = 216.239.32.10
ns1.google.com has AAAA address 2001:4860:4802:32::a
ns2.google.com internet address = 216.239.34.10
ns2.google.com has AAAA address 2001:4860:4802:34::a

tbcrow@DigDug ~ % nslookup google.com ns1.google.com
Server:      ns1.google.com
Address:     216.239.32.10#53

Name:   google.com
Address: 142.250.69.238

tbcrow@DigDug ~ %
```

## Exercise 1.4



- It states that I'm using the Safari browser on an Intel Mac, which isn't true. I am doing this assignment on a M1 MacBook running a version of an ARM processor instead of Intel. It also states I'm running Mac OS version 10.5.7, known as Leopard. I am running Mac OS 12.2, known as Monterey. This information in the User-Agent header sent by a browser as this shows isn't necessarily accurate and can be spoofed quite easily.
- My browser accepts the compression formats gzip, deflate and br.
- The server is running Apache 2.4.6 on a CentOS Linux system. Based on the PHP version 7.2.24, it is likely CentOS 7 which is based on RHEL 7.
- The webpage is using gzip encoding.

## Exercise 1.5

The traceroute from me to ENMU took 64 hops. I had to set the wait time for responses to 1 second as many backbone routers disable ICMP replies to prevent DDoS attacks. Of note, my traffic went from the Albuquerque area to Los Angeles, before going back to ENMU.

```
tbcrow@DigDug ~ % traceroute -w 1 enmu.edu
traceroute to enmu.edu (134.122.16.98), 64 hops max, 52 byte packets
 1 192.168.1.1 (192.168.1.1) 8.553 ms 4.437 ms 4.906 ms
 2 96.120.0.157 (96.120.0.157) 15.602 ms 15.196 ms 15.464 ms
 3 96.110.19.197 (96.110.19.197) 16.726 ms 16.862 ms 15.411 ms
 4 po-3-rur02.fourhills.nm.albuq.comcast.net (162.151.187.161) 17.645 ms 16.844 ms 20.908 ms
 5 be-14-ar02.albuquerque.nm.albuq.comcast.net (162.151.97.233) 20.123 ms 14.856 ms 20.953 ms
 6 96.108.67.233 (96.108.67.233) 22.886 ms 17.821 ms 16.885 ms
 7 be-36812-cs01.losangeles.ca.ibone.comcast.net (96.110.45.241) 39.128 ms
   be-36842-cs04.losangeles.ca.ibone.comcast.net (96.110.45.253) 36.977 ms
   be-36822-cs02.losangeles.ca.ibone.comcast.net (96.110.45.245) 38.142 ms
 8 be-2211-pe11.losangeles.ca.ibone.comcast.net (96.110.33.6) 43.022 ms
   be-2411-pe11.losangeles.ca.ibone.comcast.net (96.110.33.14) 37.859 ms
   be-2111-pe11.losangeles.ca.ibone.comcast.net (96.110.33.2) 45.319 ms
 9 lag-24.ear2.losangeles1.level3.net (4.68.73.193) 35.420 ms 36.345 ms 37.040 ms
10 * * *
11 4.14.218.22 (4.14.218.22) 83.565 ms 84.507 ms
   4.14.218.30 (4.14.218.30) 92.764 ms
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tbcrow@DigDug ~ %
```