

COMP9331 LAB 03

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Exercise 3: Digging into DNS

```
weber % dig www.eecs.berkeley.edu A

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> www.eecs.berkeley.edu A
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 50319
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 4, ADDITIONAL: 6

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;www.eecs.berkeley.edu.      IN  A

;; ANSWER SECTION:
www.eecs.berkeley.edu.      72217 IN  CNAME live-eecs.pantheonsite.io.
live-eecs.pantheonsite.io. 600  IN  CNAME fel.edge.pantheon.io.
fel.edge.pantheon.io.       27   IN  A 23.185.0.1

;; AUTHORITY SECTION:
pantheon.io.                 8037 IN  NS  ns-1096.awsdns-09.org.
pantheon.io.                 8037 IN  NS  ns-924.awsdns-51.net.
pantheon.io.                 8037 IN  NS  ns-1857.awsdns-40.co.uk.
pantheon.io.                 8037 IN  NS  ns-148.awsdns-18.com.

;; ADDITIONAL SECTION:
ns-148.awsdns-18.com.       97716 IN  A 205.251.192.148
ns-924.awsdns-51.net.       159800 IN  A 205.251.195.156
ns-924.awsdns-51.net.       74987 IN  AAAA 2600:9000:5303:9c00::1
ns-1096.awsdns-09.org.      158128 IN  A 205.251.196.72
ns-1857.awsdns-40.co.uk.    163762 IN  A 205.251.199.65

;; Query time: 24 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Oct 06 15:49:49 AEDT 2020
;; MSG SIZE rcvd: 369
```

According to the above code:

Question 1

- The IP address is `23.185.0.1`
- The type of DNS query is `A`.

Question 2

- The canonical name for the eecs.berkeley web server is `live-eecs.pantheonsite.io.`
- Using alias because they are easier to remember by clinets.

Question 3

According to `AUTHORITY SECTION` and `ADDITIONAL SECTION:`

- `NS` records domain name.
- `A` records IPv4 addresses.
- `AAAA` records IPv6 addresses.

Question 4

- The local nameserver for cse is `129.94.242.2`

Question 5

```
weber % dig eecs.berkeley.edu NS

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> eecs.berkeley.edu NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 22447
;; flags: qr rd ra; QUERY: 1, ANSWER: 5, AUTHORITY: 0, ADDITIONAL: 9

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;eecs.berkeley.edu.      IN      NS

;; ANSWER SECTION:
eecs.berkeley.edu.      9535    IN      NS      adns3.berkeley.edu.
eecs.berkeley.edu.      9535    IN      NS      ns.CS.berkeley.edu.
eecs.berkeley.edu.      9535    IN      NS      adns1.berkeley.edu.
eecs.berkeley.edu.      9535    IN      NS      ns.eecs.berkeley.edu.
eecs.berkeley.edu.      9535    IN      NS      adns2.berkeley.edu.

;; ADDITIONAL SECTION:
ns.CS.berkeley.edu.     28593   IN      A        169.229.60.61
ns.eecs.berkeley.edu.   28593   IN      A        169.229.60.153
adns1.berkeley.edu.     5070    IN      A        128.32.136.3
adns1.berkeley.edu.     5070    IN      AAAA     2607:f140:ffff:fffe::3
adns2.berkeley.edu.     5070    IN      A        128.32.136.14
adns2.berkeley.edu.     5070    IN      AAAA     2607:f140:ffff:fffe::e
adns3.berkeley.edu.     5239    IN      A        192.107.102.142
```

```
adns3.berkeley.edu. 5240 IN AAAA 2607:f140:a000:d::abc
```

```
;; Query time: 0 msec  
;; SERVER: 129.94.242.2#53(129.94.242.2)  
;; WHEN: Tue Oct 06 16:30:44 AEDT 2020  
;; MSG SIZE rcvd: 307
```

- The DNS nameserver are:

```
adns3.berkeley.edu.  
ns.CS.berkeley.edu.  
adns1.berkeley.edu.  
ns.eecs.berkeley.edu.  
adns2.berkeley.edu.
```

- The IP address of these server are:

```
169.229.60.61 (IPv4)  
169.229.60.153 (IPv4)  
128.32.136.3 (IPv4)  
2607:f140:ffff:fffe::3 (IPv6)  
128.32.136.14 (IPv4)  
2607:f140:ffff:fffe::e (IPv6)  
192.107.102.142 (IPv4)  
2607:f140:a000:d::abc (IPv6)
```

Question 6

```
weber % dig -x 111.68.101.54
```

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> -x 111.68.101.54  
;; global options: +cmd  
;; Got answer:  
;; -->HEADER<-- opcode: QUERY, status: NOERROR, id: 50127  
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 3  
  
;; OPT PSEUDOSECTION:  
; EDNS: version: 0, flags:; udp: 4096  
;; QUESTION SECTION:  
;54.101.68.111.in-addr.arpa. IN PTR  
  
;; ANSWER SECTION:  
54.101.68.111.in-addr.arpa. 2274 IN PTR webserver.seecs.nust.edu.pk.  
  
;; AUTHORITY SECTION:  
101.68.111.in-addr.arpa. 22917 IN NS ns2.hec.gov.pk.  
101.68.111.in-addr.arpa. 22917 IN NS ns1.hec.gov.pk.  
  
;; ADDITIONAL SECTION:
```

```

ns1.hec.gov.pk.      2274  IN  A 103.4.93.5
ns2.hec.gov.pk.      2274  IN  A 103.4.93.6

;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Oct 06 16:45:05 AEDT 2020
;; MSG SIZE rcvd: 172

```

- The DNS name associated with the IP address 111.68.101.54 is `webserver.seecs.nust.edu.pk.`
- Run `dig -x 111.68.101.54`, the information is above of code.

Question 7

```

weber % dig @129.94.242.33 yahoo.com MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.242.33 yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 43686
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 5, ADDITIONAL: 10

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;yahoo.com.      IN  MX

;; ANSWER SECTION:
yahoo.com.      1011  IN  MX  1 mta7.am0.yahoodns.net.
yahoo.com.      1011  IN  MX  1 mta5.am0.yahoodns.net.
yahoo.com.      1011  IN  MX  1 mta6.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.      66085  IN  NS  ns4.yahoo.com.
yahoo.com.      66085  IN  NS  ns2.yahoo.com.
yahoo.com.      66085  IN  NS  ns1.yahoo.com.
yahoo.com.      66085  IN  NS  ns5.yahoo.com.
yahoo.com.      66085  IN  NS  ns3.yahoo.com.

;; ADDITIONAL SECTION:
ns1.yahoo.com.  578933  IN  A 68.180.131.16
ns1.yahoo.com.  658  IN  AAAA 2001:4998:130::1001
ns2.yahoo.com.  596360  IN  A 68.142.255.16
ns2.yahoo.com.  94710  IN  AAAA 2001:4998:140::1002
ns3.yahoo.com.  1106  IN  A 27.123.42.42
ns3.yahoo.com.  1106  IN  AAAA 2406:8600:f03f:1f8::1003
ns4.yahoo.com.  105322  IN  A 98.138.11.157
ns5.yahoo.com.  23405  IN  A 202.165.97.53

```

```
ns5.yahoo.com.      23405 IN AAAA 2406:2000:ff60::53
```

```
;; Query time: 0 msec
;; SERVER: 129.94.242.33#53(129.94.242.33)
;; WHEN: Tue Oct 06 17:01:41 AEDT 2020
;; MSG SIZE rcvd: 399
```

- No, the information of above code dose not have authoritative answer.
- This is because this IP address only has CSE domain, but does not have Yahoo domain

Question 8

```
weber % dig @adns3.berkeley.edu yahoo.com MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @adns3.berkeley.edu yahoo.com MX
; (2 servers found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: REFUSED, id: 62994
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags;; udp: 4096
;; QUESTION SECTION:
;yahoo.com.      IN MX

;; Query time: 167 msec
;; SERVER: 192.107.102.142#53(192.107.102.142)
;; WHEN: Tue Oct 06 17:12:19 AEDT 2020
;; MSG SIZE rcvd: 38
```

- They are not available

Question 9

- Run `dig yahoo.com NS`, we can get the one of IP address is `68.180.131.16`
- Run `dig @68.180.131.16 yahoo.com MX`

```
weber % dig @68.180.131.16 yahoo.com MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @68.180.131.16 yahoo.com
MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 40271
```

```
;; flags: qr aa rd; QUERY: 1, ANSWER: 3, AUTHORITY: 5,
ADDITIONAL: 10
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1272
;; QUESTION SECTION:
;yahoo.com.      IN  MX

;; ANSWER SECTION:
yahoo.com.      1800 IN  MX  1 mta5.am0.yahoodns.net.
yahoo.com.      1800 IN  MX  1 mta6.am0.yahoodns.net.
yahoo.com.      1800 IN  MX  1 mta7.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.      172800 IN  NS  ns3.yahoo.com.
yahoo.com.      172800 IN  NS  ns2.yahoo.com.
yahoo.com.      172800 IN  NS  ns4.yahoo.com.
yahoo.com.      172800 IN  NS  ns1.yahoo.com.
yahoo.com.      172800 IN  NS  ns5.yahoo.com.

;; ADDITIONAL SECTION:
ns1.yahoo.com.  1209600 IN  A  68.180.131.16
ns2.yahoo.com.  1209600 IN  A  68.142.255.16
ns3.yahoo.com.  1800 IN  A  27.123.42.42
ns4.yahoo.com.  1209600 IN  A  98.138.11.157
ns5.yahoo.com.  86400 IN  A  202.165.97.53
ns1.yahoo.com.  86400 IN  AAAA 2001:4998:130::1001
ns2.yahoo.com.  86400 IN  AAAA 2001:4998:140::1002
ns3.yahoo.com.  1800 IN  AAAA 2406:8600:f03f:1f8::1003
ns5.yahoo.com.  86400 IN  AAAA 2406:2000:ff60::53

;; Query time: 145 msec
;; SERVER: 68.180.131.16#53(68.180.131.16)
;; WHEN: Tue Oct 06 17:20:09 AEDT 2020
;; MSG SIZE rcvd: 399
```

- The type of DNS is `MX`

Question 10

The following steps are:

```
weber % dig . NS

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> . NS
;; global options: +cmd
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 35305
;; flags: qr rd ra; QUERY: 1, ANSWER: 13, AUTHORITY: 0, ADDITIONAL: 27
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags;; udp: 4096
;; QUESTION SECTION:
; .          IN   NS

;; ANSWER SECTION:
.      317667 IN   NS  i.root-servers.net.
.      317667 IN   NS  e.root-servers.net.
.      317667 IN   NS  k.root-servers.net.
.      317667 IN   NS  h.root-servers.net.
.      317667 IN   NS  c.root-servers.net.
.      317667 IN   NS  g.root-servers.net.
.      317667 IN   NS  l.root-servers.net.
.      317667 IN   NS  f.root-servers.net.
.      317667 IN   NS  j.root-servers.net.
.      317667 IN   NS  a.root-servers.net.
.      317667 IN   NS  d.root-servers.net.
.      317667 IN   NS  b.root-servers.net.
.      317667 IN   NS  m.root-servers.net.

;; ADDITIONAL SECTION:
a.root-servers.net. 83589 IN  A 198.41.0.4
a.root-servers.net. 83589 IN  AAAA 2001:503:ba3e::2:30
b.root-servers.net. 11594 IN  A 199.9.14.201
b.root-servers.net. 421655 IN  AAAA 2001:500:200::b
c.root-servers.net. 536195 IN  A 192.33.4.12
c.root-servers.net. 536195 IN  AAAA 2001:500:2::c
d.root-servers.net. 536195 IN  A 199.7.91.13
d.root-servers.net. 536195 IN  AAAA 2001:500:2d::d
e.root-servers.net. 3438 IN  A 192.203.230.10
e.root-servers.net. 43178 IN  AAAA 2001:500:a8::e
f.root-servers.net. 7063 IN  A 192.5.5.241
f.root-servers.net. 421655 IN  AAAA 2001:500:2f::f
g.root-servers.net. 13765 IN  A 192.112.36.4
g.root-servers.net. 421655 IN  AAAA 2001:500:12::d0d
h.root-servers.net. 188897 IN  A 198.97.190.53
h.root-servers.net. 421654 IN  AAAA 2001:500:1::53
i.root-servers.net. 601833 IN  A 192.36.148.17
i.root-servers.net. 601833 IN  AAAA 2001:7fe::53
j.root-servers.net. 164470 IN  A 192.58.128.30
j.root-servers.net. 93302 IN  AAAA 2001:503:c27::2:30
k.root-servers.net. 170229 IN  A 193.0.14.129
k.root-servers.net. 93302 IN  AAAA 2001:7fd::1
l.root-servers.net. 11594 IN  A 199.7.83.42
l.root-servers.net. 421654 IN  AAAA 2001:500:9f::42
m.root-servers.net. 183241 IN  A 202.12.27.33
m.root-servers.net. 421654 IN  AAAA 2001:dc3::35
```

```
;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Oct 06 17:25:36 AEDT 2020
;; MSG SIZE rcvd: 811
```

```
weber % dig @198.41.0.4 lyre00.cse.unsw.edu.au
```

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @198.41.0.4
lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 65502
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 9, ADDITIONAL: 19
;; WARNING: recursion requested but not available
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags;; udp: 4096
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.      IN  A
```

```
;; AUTHORITY SECTION:
au.      172800  IN  NS  m.au.
au.      172800  IN  NS  d.au.
au.      172800  IN  NS  q.au.
au.      172800  IN  NS  t.au.
au.      172800  IN  NS  s.au.
au.      172800  IN  NS  r.au.
au.      172800  IN  NS  n.au.
au.      172800  IN  NS  a.au.
au.      172800  IN  NS  c.au.
```

```
;; ADDITIONAL SECTION:
m.au.      172800  IN  A  156.154.100.24
m.au.      172800  IN  AAAA  2001:502:2eda::24
d.au.      172800  IN  A  162.159.25.38
d.au.      172800  IN  AAAA  2400:cb00:2049:1::a29f:1926
q.au.      172800  IN  A  65.22.196.1
q.au.      172800  IN  AAAA  2a01:8840:be::1
t.au.      172800  IN  A  65.22.199.1
t.au.      172800  IN  AAAA  2a01:8840:c1::1
s.au.      172800  IN  A  65.22.198.1
s.au.      172800  IN  AAAA  2a01:8840:c0::1
r.au.      172800  IN  A  65.22.197.1
r.au.      172800  IN  AAAA  2a01:8840:bf::1
n.au.      172800  IN  A  156.154.101.24
n.au.      172800  IN  AAAA  2001:502:ad09::24
```



```
a.au.      172800  IN  A 58.65.254.73
a.au.      172800  IN  AAAA 2407:6e00:254:306::73
c.au.      172800  IN  A 162.159.24.179
c.au.      172800  IN  AAAA 2400:cb00:2049:1::a29f:18b3
```

```
;; Query time: 118 msec
;; SERVER: 198.41.0.4#53(198.41.0.4)
;; WHEN: Tue Oct 06 17:29:53 AEDT 2020
;; MSG SIZE rcvd: 591
```

```
weber % dig @156.154.100.24 lyre00.cse.unsw.edu.au
```

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @156.154.100.24
lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 29021
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 4, ADDITIONAL: 9
;; WARNING: recursion requested but not available
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.      IN  A
```

```
;; AUTHORITY SECTION:
edu.au.      86400 IN  NS  s.au.
edu.au.      86400 IN  NS  q.au.
edu.au.      86400 IN  NS  r.au.
edu.au.      86400 IN  NS  t.au.
```

```
;; ADDITIONAL SECTION:
q.au.      86400 IN  A 65.22.196.1
r.au.      86400 IN  A 65.22.197.1
s.au.      86400 IN  A 65.22.198.1
t.au.      86400 IN  A 65.22.199.1
q.au.      86400 IN  AAAA 2a01:8840:be::1
r.au.      86400 IN  AAAA 2a01:8840:bf::1
s.au.      86400 IN  AAAA 2a01:8840:c0::1
t.au.      86400 IN  AAAA 2a01:8840:c1::1
```

```
;; Query time: 14 msec
;; SERVER: 156.154.100.24#53(156.154.100.24)
;; WHEN: Tue Oct 06 17:31:37 AEDT 2020
;; MSG SIZE rcvd: 291
```

```

weber % dig @65.22.196.1 lyre00.cse.unsw.edu.au

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @65.22.196.1
lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 63906
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 3, ADDITIONAL: 6
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.      IN  A

;; AUTHORITY SECTION:
unsw.edu.au.      900 IN  NS   ns2.unsw.edu.au.
unsw.edu.au.      900 IN  NS   ns1.unsw.edu.au.
unsw.edu.au.      900 IN  NS   ns3.unsw.edu.au.

;; ADDITIONAL SECTION:
ns1.unsw.edu.au.  900 IN  A    129.94.0.192
ns2.unsw.edu.au.  900 IN  A    129.94.0.193
ns3.unsw.edu.au.  900 IN  A    192.155.82.178
ns1.unsw.edu.au.  900 IN  AAAA  2001:388:c:35::1
ns2.unsw.edu.au.  900 IN  AAAA  2001:388:c:35::2

;; Query time: 24 msec
;; SERVER: 65.22.196.1#53(65.22.196.1)
;; WHEN: Tue Oct 06 17:32:44 AEDT 2020
;; MSG SIZE rcvd: 209

```

```

weber % dig @129.94.0.192 lyre00.cse.unsw.edu.au

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.0.192
lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; -->HEADER<<- opcode: QUERY, status: NOERROR, id: 49739
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 2, ADDITIONAL: 5
;; WARNING: recursion requested but not available

```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
lyre00.cse.unsw.edu.au.      IN  A

;; AUTHORITY SECTION:
cse.unsw.edu.au.  10800 IN  NS  beethoven.orchestra.cse.unsw.edu.au.
cse.unsw.edu.au.  10800 IN  NS  maestro.orchestra.cse.unsw.edu.au.

;; ADDITIONAL SECTION:
beethoven.orchestra.cse.unsw.edu.au. 10800 IN A 129.94.242.2
beethoven.orchestra.cse.unsw.edu.au. 10800 IN A 129.94.172.11
beethoven.orchestra.cse.unsw.edu.au. 10800 IN A 129.94.208.3
maestro.orchestra.cse.unsw.edu.au. 10800 IN A 129.94.242.33

;; Query time: 3 msec
;; SERVER: 129.94.0.192#53(129.94.0.192)
;; WHEN: Tue Oct 06 17:34:27 AEDT 2020
;; MSG SIZE rcvd: 171
```

```
weber % dig @129.94.242.2 lyre00.cse.unsw.edu.au
```

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.242.2
lyre00.cse.unsw.edu.au
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 12396
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 3

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
lyre00.cse.unsw.edu.au.      IN  A

;; ANSWER SECTION:
lyre00.cse.unsw.edu.au. 3600 IN A 129.94.210.20

;; AUTHORITY SECTION:
cse.unsw.edu.au.  3600 IN  NS  beethoven.orchestra.cse.unsw.edu.au.
cse.unsw.edu.au.  3600 IN  NS  maestro.orchestra.cse.unsw.edu.au.

;; ADDITIONAL SECTION:
maestro.orchestra.cse.unsw.edu.au. 3600 IN A 129.94.242.33
beethoven.orchestra.cse.unsw.edu.au. 3600 IN A 129.94.242.2

;; Query time: 0 msec
```

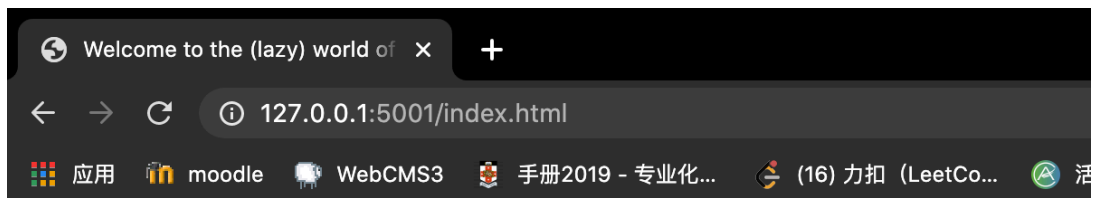
```
;; SERVER: 129.94.242.2#53 (129.94.242.2)
;; WHEN: Tue Oct 06 17:35:31 AEDT 2020
;; MSG SIZE rcvd: 155
```

Question 11

Yes, a physical machine could have several network interfaces.

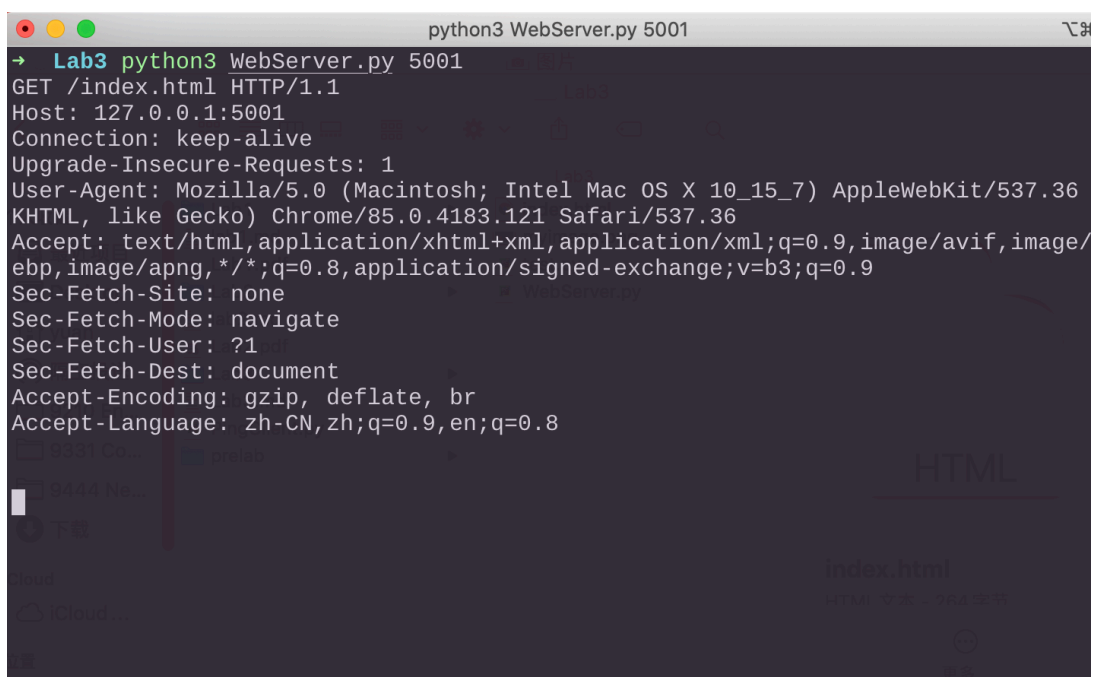
Exercise 4: A Simple Web Server

- <http://127.0.0.1:5001/index.html>

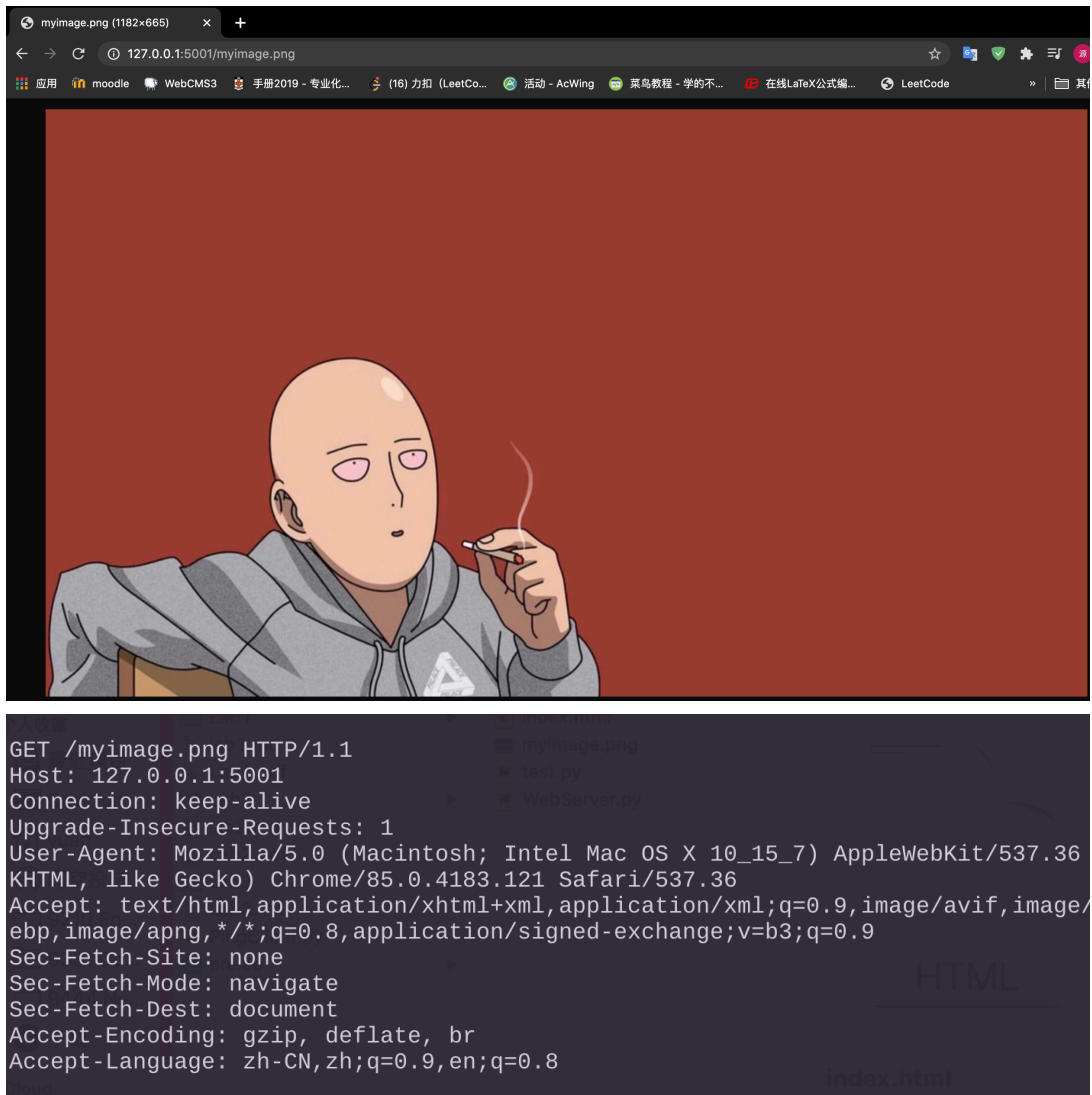


This is the home page for your favorite character Garfield

Curious to see how I look?



- <http://127.0.0.1:5001/myimage.png>



- <http://127.0.0.1:5001/bio.html>

