

Lab03 by Katrina

Exercise 3

Q1.

Type `A`. As type `A` stores the IP address for a name.

```
z5211336@cs3331$ dig www.cecs.anu.edu.au A

; <<>> DiG 9.7.3 <<>> www.cecs.anu.edu.au A
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 11833
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 3, ADDITIONAL: 6

;; QUESTION SECTION:
;www.cecs.anu.edu.au.      IN      A

;; ANSWER SECTION:
www.cecs.anu.edu.au.      1165    IN      CNAME    rproxy.cecs.anu.edu.au.
rproxy.cecs.anu.edu.au.  1165    IN      A        150.203.161.98

;; AUTHORITY SECTION:
cecs.anu.edu.au.          1152    IN      NS       ns4.cecs.anu.edu.au.
cecs.anu.edu.au.          1152    IN      NS       ns3.cecs.anu.edu.au.
cecs.anu.edu.au.          1152    IN      NS       ns2.cecs.anu.edu.au.

;; ADDITIONAL SECTION:
ns2.cecs.anu.edu.au.      3105    IN      A        150.203.161.36
ns2.cecs.anu.edu.au.      2263    IN      AAAA     2001:388:1034:2905::24
ns3.cecs.anu.edu.au.      2263    IN      A        150.203.161.50
ns3.cecs.anu.edu.au.      2263    IN      AAAA     2001:388:1034:2905::32
ns4.cecs.anu.edu.au.      1152    IN      A        150.203.161.38
ns4.cecs.anu.edu.au.      1152    IN      AAAA     2001:388:1034:2905::26

;; Query time: 0 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Tue Mar 12 21:52:11 2019
;; MSG SIZE rcvd: 260
```

Q2.

The canonical name is `rproxy.cecs.anu.edu.au`. It's IP address is `150.203.161.98`.
The alias is easier for people to memorize.

```
z5211336@cs3331$ dig www.cecs.anu.edu.au CNAME

; <<>> DiG 9.7.3 <<>> www.cecs.anu.edu.au CNAME
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 48700
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 3, ADDITIONAL: 6
```

```
;; QUESTION SECTION:
;www.cecs.anu.edu.au.      IN  CNAME

;; ANSWER SECTION:
www.cecs.anu.edu.au.      1229  IN  CNAME  rproxy.cecs.anu.edu.au.

;; AUTHORITY SECTION:
cecs.anu.edu.au.          1216  IN  NS      ns4.cecs.anu.edu.au.
cecs.anu.edu.au.          1216  IN  NS      ns2.cecs.anu.edu.au.
cecs.anu.edu.au.          1216  IN  NS      ns3.cecs.anu.edu.au.

;; ADDITIONAL SECTION:
ns2.cecs.anu.edu.au.      3169  IN  A       150.203.161.36
ns2.cecs.anu.edu.au.      2327  IN  AAAA    2001:388:1034:2905::24
ns3.cecs.anu.edu.au.      2327  IN  A       150.203.161.50
ns3.cecs.anu.edu.au.      2327  IN  AAAA    2001:388:1034:2905::32
ns4.cecs.anu.edu.au.      1216  IN  A       150.203.161.38
ns4.cecs.anu.edu.au.      1216  IN  AAAA    2001:388:1034:2905::26

;; Query time: 0 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Tue Mar 12 21:51:07 2019
;; MSG SIZE rcvd: 244
```

Q3.

The Authority Section displays the authority DNS servers for that domain (it may be contained in secondary zones).

From the above example, the Authority Section has three name servers with Type `NS`.

The Additional Section displays those IPv4 addresses of the authoritative name servers in IPv6. From the above example, the Additional Section, the Type A records stores IPv4 address, and the Type AAAA records stores IPv6 address. Each pair of them corresponds to same name server.

Q4.

The IP address of the local nameserver is `127.0.0.1`.

```
z5211336@drum15:~$ dig localhost

; <<>> DiG 9.7.3 <<>> localhost
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 6086
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 1

;; QUESTION SECTION:
;localhost.              IN  A

;; ANSWER SECTION:
localhost.                63755  IN  A       127.0.0.1

;; AUTHORITY SECTION:
localhost.                63755  IN  NS      localhost.
```

```
;; ADDITIONAL SECTION:
localhost.      63755    IN   AAAA    ::1

;; Query time: 0 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Thu Mar 14 18:58:21 2019
;; MSG SIZE rcvd: 85
```

Q5.

The name servers

are ns2.cecs.anu.edu.au, ns3.cecs.anu.edu.au, ns4.cecs.anu.edu.au.

Their corresponding IP addresses are 150.203.161.36, 150.203.161.50, 150.203.161.38.

Type NS is sent to achieve this information as it stores all authority DNS servers for that domain.

```
z5211336@cs3331$ dig cecs.anu.edu.au NS

; <<>> DiG 9.7.3 <<>> cecs.anu.edu.au NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 61371
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 6

;; QUESTION SECTION:
;cecs.anu.edu.au.      IN   NS

;; ANSWER SECTION:
cecs.anu.edu.au.      3349    IN   NS   ns3.cecs.anu.edu.au.
cecs.anu.edu.au.      3349    IN   NS   ns4.cecs.anu.edu.au.
cecs.anu.edu.au.      3349    IN   NS   ns2.cecs.anu.edu.au.

;; ADDITIONAL SECTION:
ns2.cecs.anu.edu.au.  1686    IN   A     150.203.161.36
ns2.cecs.anu.edu.au.  208 IN   AAAA  2001:388:1034:2905::24
ns3.cecs.anu.edu.au.  844 IN   A     150.203.161.50
ns3.cecs.anu.edu.au.  844 IN   AAAA  2001:388:1034:2905::32
ns4.cecs.anu.edu.au.  23697   IN   A     150.203.161.38
ns4.cecs.anu.edu.au.  3349    IN   AAAA  2001:388:1034:2905::26

;; Query time: 5 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Tue Mar 12 22:15:50 2019
;; MSG SIZE rcvd: 219
```

Q6.

It's engplws008.ad.unsw.edu.au. and engplws008.eng.unsw.edu.au.. The type of DNS query is PTR, which maps an IP address to a hostname (like reverse Type A).

```
z5211336@vx1:.../2/z5211336$ dig -x 149.171.158.109

; <<>> DiG 9.7.3 <<>> -x 149.171.158.109
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 35976
```

```
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 6, ADDITIONAL: 5

;; QUESTION SECTION:
;109.158.171.149.in-addr.arpa. IN PTR

;; ANSWER SECTION:
109.158.171.149.in-addr.arpa. 139 IN PTR engplws008.ad.unsw.edu.au.
109.158.171.149.in-addr.arpa. 139 IN PTR engplws008.eng.unsw.edu.au.

;; AUTHORITY SECTION:
in-addr.arpa. 31603 IN NS f.in-addr-servers.arpa.
in-addr.arpa. 31603 IN NS d.in-addr-servers.arpa.
in-addr.arpa. 31603 IN NS e.in-addr-servers.arpa.
in-addr.arpa. 31603 IN NS b.in-addr-servers.arpa.
in-addr.arpa. 31603 IN NS a.in-addr-servers.arpa.
in-addr.arpa. 31603 IN NS c.in-addr-servers.arpa.

;; ADDITIONAL SECTION:
a.in-addr-servers.arpa. 36444 IN A 199.180.182.53
c.in-addr-servers.arpa. 49412 IN A 196.216.169.10
d.in-addr-servers.arpa. 80013 IN A 200.10.60.53
e.in-addr-servers.arpa. 71996 IN A 203.119.86.101
f.in-addr-servers.arpa. 5387 IN A 193.0.9.1

;; Query time: 0 msec
;; SERVER: 129.94.242.45#53(129.94.242.45)
;; WHEN: Thu Mar 14 14:30:05 2019
;; MSG SIZE rcvd: 306
```

Q7.

No, as the flags don't contain `AA` flag, which means it's not the authoritative answer.

```
z5211336@vx1:.../2/z5211336$ dig @129.94.242.33 yahoo.com MX

; <<>> DiG 9.7.3 <<>> @129.94.242.33 yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 35258
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 5, ADDITIONAL: 8

;; QUESTION SECTION:
;yahoo.com. IN MX

;; ANSWER SECTION:
yahoo.com. 159 IN MX 1 mta5.am0.yahoodns.net.
yahoo.com. 159 IN MX 1 mta6.am0.yahoodns.net.
yahoo.com. 159 IN MX 1 mta7.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com. 67943 IN NS ns2.yahoo.com.
yahoo.com. 67943 IN NS ns1.yahoo.com.
yahoo.com. 67943 IN NS ns3.yahoo.com.
yahoo.com. 67943 IN NS ns4.yahoo.com.
yahoo.com. 67943 IN NS ns5.yahoo.com.
```

```
;; ADDITIONAL SECTION:
ns1.yahoo.com.      451657 IN A   68.180.131.16
ns1.yahoo.com.      14049  IN AAAA 2001:4998:130::1001
ns2.yahoo.com.      461546 IN A   68.142.255.16
ns2.yahoo.com.      1394   IN AAAA 2001:4998:140::1002
ns3.yahoo.com.      71802  IN A   203.84.221.53
ns3.yahoo.com.      72496  IN AAAA 2406:8600:b8:fe03::1003
ns4.yahoo.com.      290158 IN A   98.138.11.157
ns5.yahoo.com.      354473 IN A   119.160.253.83

;; Query time: 0 msec
;; SERVER: 129.94.242.33#53(129.94.242.33)
;; WHEN: Thu Mar 14 14:05:41 2019
;; MSG SIZE rcvd: 360
```

Q8.

It doesn't have answer and the status is `REFUSED` (recursive query denied. Also, flags in header only has `qr` and `rd` but not `ra` (recursive available).

```
z5211336@vx1:.../2/z5211336$ dig @150.203.161.36 yahoo.com MX

; <<>> DiG 9.7.3 <<>> @150.203.161.36 yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: REFUSED, id: 21564
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 0
;; WARNING: recursion requested but not available

;; QUESTION SECTION:
;yahoo.com.      IN MX

;; Query time: 8 msec
;; SERVER: 150.203.161.36#53(150.203.161.36)
;; WHEN: Thu Mar 14 14:44:57 2019
;; MSG SIZE rcvd: 27
```

Q9.

`MX` is sent.

```
z5211336@drum15:~$ dig @ns2.yahoo.com. yahoo.com MX

; <<>> DiG 9.7.3 <<>> @ns2.yahoo.com. yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 29803
;; flags: qr aa rd; QUERY: 1, ANSWER: 3, AUTHORITY: 5, ADDITIONAL: 8
;; WARNING: recursion requested but not available

;; QUESTION SECTION:
;yahoo.com.      IN MX

;; ANSWER SECTION:
```

```

yahoo.com.      1800      IN      MX      1      mta6.am0.yahoodns.net.
yahoo.com.      1800      IN      MX      1      mta7.am0.yahoodns.net.
yahoo.com.      1800      IN      MX      1      mta5.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.      172800    IN      NS      ns1.yahoo.com.
yahoo.com.      172800    IN      NS      ns3.yahoo.com.
yahoo.com.      172800    IN      NS      ns2.yahoo.com.
yahoo.com.      172800    IN      NS      ns5.yahoo.com.
yahoo.com.      172800    IN      NS      ns4.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.  1209600   IN      A        203.84.221.53
ns4.yahoo.com.  1209600   IN      A        98.138.11.157
ns5.yahoo.com.  1209600   IN      A        119.160.253.83
ns1.yahoo.com.  86400     IN      AAAA     2001:4998:130::1001
ns2.yahoo.com.  86400     IN      AAAA     2001:4998:140::1002
ns3.yahoo.com.  86400     IN      AAAA     2406:8600:b8:fe03::1003

;; Query time: 149 msec
;; SERVER: 68.142.255.16#53(68.142.255.16)
;; WHEN: Thu Mar 14 19:38:06 2019
;; MSG SIZE rcvd: 360

```

Q10.

6 DNS servers I have to query. And my IP address is 129.94.210.20.

1. for . (NS)
2. for au. (NS)
3. for edu.au. (NS)
4. for unsw.edu.au (NS)
5. for cse.unsw.edu.au (NS)
6. for lyre00.cse.unsw.edu.au (A)

```

z5211336@drum15:~$ dig . NS

; <<>> DiG 9.7.3 <<>> . NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 61312
;; flags: qr rd ra; QUERY: 1, ANSWER: 13, AUTHORITY: 0, ADDITIONAL: 13

;; QUESTION SECTION:
;.                IN      NS

;; ANSWER SECTION:
.                  47606    IN      NS      i.root-servers.net.
.                  47606    IN      NS      j.root-servers.net.
.                  47606    IN      NS      k.root-servers.net.
.                  47606    IN      NS      l.root-servers.net.
.                  47606    IN      NS      a.root-servers.net.
.                  47606    IN      NS      h.root-servers.net.
.                  47606    IN      NS      g.root-servers.net.
.                  47606    IN      NS      c.root-servers.net.

```

```
.          47606    IN    NS    m.root-servers.net.
.          47606    IN    NS    e.root-servers.net.
.          47606    IN    NS    b.root-servers.net.
.          47606    IN    NS    d.root-servers.net.
.          47606    IN    NS    f.root-servers.net.
```

```
;; ADDITIONAL SECTION:
```

```
a.root-servers.net. 316144 IN  A    198.41.0.4
a.root-servers.net. 332855 IN  AAAA   2001:503:ba3e::2:30
b.root-servers.net. 494471 IN  A    199.9.14.201
b.root-servers.net. 54885  IN  AAAA   2001:500:200::b
c.root-servers.net. 449353 IN  A    192.33.4.12
c.root-servers.net. 17353  IN  AAAA   2001:500:2::c
d.root-servers.net. 207631 IN  A    199.7.91.13
d.root-servers.net. 240200 IN  AAAA   2001:500:2d::d
e.root-servers.net. 318516 IN  A    192.203.230.10
e.root-servers.net. 65912  IN  AAAA   2001:500:a8::e
f.root-servers.net. 54885  IN  A    192.5.5.241
f.root-servers.net. 17353  IN  AAAA   2001:500:2f::f
g.root-servers.net. 326603 IN  A    192.112.36.4
```

```
;; Query time: 1 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Thu Mar 14 18:24:53 2019
;; MSG SIZE rcvd: 508
```

```
z5211336@drum15:~$ dig @i.root-servers.net. au. NS
```

```
; <<>> DiG 9.7.3 <<>> @i.root-servers.net. au. NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 50189
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 10, ADDITIONAL: 15
;; WARNING: recursion requested but not available
```

```
;; QUESTION SECTION:
```

```
;au.                IN    NS
```

```
;; AUTHORITY SECTION:
```

```
au.          172800  IN    NS    a.au.
au.          172800  IN    NS    r.au.
au.          172800  IN    NS    v.au.
au.          172800  IN    NS    u.au.
au.          172800  IN    NS    q.au.
au.          172800  IN    NS    b.au.
au.          172800  IN    NS    d.au.
au.          172800  IN    NS    t.au.
au.          172800  IN    NS    c.au.
au.          172800  IN    NS    s.au.
```

```
;; ADDITIONAL SECTION:
```

```
a.au.          172800  IN    A    58.65.254.73
a.au.          172800  IN  AAAA   2407:6e00:254:306::73
b.au.          172800  IN    A    58.65.253.73
b.au.          172800  IN  AAAA   2407:6e00:253:306::73
c.au.          172800  IN    A    162.159.24.179
c.au.          172800  IN  AAAA   2400:cb00:2049:1::a29f:18b3
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
r.au.      172800 IN A    65.22.197.1
r.au.      172800 IN AAAA 2a01:8840:bf::1
s.au.      172800 IN A    65.22.198.1
s.au.      172800 IN AAAA 2a01:8840:c0::1
t.au.      172800 IN A    65.22.199.1
```

```
;; Query time: 47 msec
;; SERVER: 192.36.148.17#53(192.36.148.17)
;; WHEN: Thu Mar 14 18:25:21 2019
;; MSG SIZE rcvd: 504
```

```
z5211336@drum15:~$ code WebServer.py
z5211336@drum15:~$ code WebServer.py
z5211336@drum15:~$
z5211336@drum15:~$
z5211336@drum15:~$
z5211336@drum15:~$
z5211336@drum15:~$ dig @a.au. edu.au NS
```

```
; <<>> DiG 9.7.3 <<>> @a.au. edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 63768
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 4, ADDITIONAL: 8
;; WARNING: recursion requested but not available
```

```
;; QUESTION SECTION:
;edu.au.      IN NS
```

```
;; AUTHORITY SECTION:
edu.au.      86400 IN NS q.au.
edu.au.      86400 IN NS t.au.
edu.au.      86400 IN NS s.au.
edu.au.      86400 IN NS r.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: 154 msec
;; SERVER: 58.65.254.73#53(58.65.254.73)
;; WHEN: Thu Mar 14 19:06:29 2019
;; MSG SIZE rcvd: 264
```

```
z5211336@drum15:~$ dig @q.au. unsw.edu.au NS
```

```
; <<>> DiG 9.7.3 <<>> @q.au. unsw.edu.au NS
; (1 server found)
;; global options: +cmd
```



```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 22054
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 3, ADDITIONAL: 5
;; WARNING: recursion requested but not available
```

```
;; QUESTION SECTION:
;unsw.edu.au.          IN  NS
```

```
;; AUTHORITY SECTION:
unsw.edu.au.          900 IN  NS  ns2.unsw.edu.au.
unsw.edu.au.          900 IN  NS  ns3.unsw.edu.au.
unsw.edu.au.          900 IN  NS  ns1.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: 7 msec
;; SERVER: 65.22.196.1#53(65.22.196.1)
;; WHEN: Thu Mar 14 19:06:41 2019
;; MSG SIZE rcvd: 187
```

```
z5211336@drum15:~$ dig @ns2.unsw.edu.au. cse.unsw.edu.au NS
```

```
; <<>> DiG 9.7.3 <<>> @ns2.unsw.edu.au. cse.unsw.edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 27873
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 2, ADDITIONAL: 4
;; WARNING: recursion requested but not available
```

```
;; QUESTION SECTION:
;cse.unsw.edu.au.      IN  NS
```

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

```
;; Query time: 4 msec
;; SERVER: 129.94.0.193#53(129.94.0.193)
;; WHEN: Thu Mar 14 19:06:55 2019
;; MSG SIZE rcvd: 153
```

```
z5211336@drum15:~$ dig @beethoven.orchestra.cse.unsw.edu.au.
lyre00.cse.unsw.edu.au A
```

```
; <<>> DiG 9.7.3 <<>> @beethoven.orchestra.cse.unsw.edu.au. lyre00.cse.unsw.edu.au
A
; (1 server found)
```

```
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 28478
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 2

;; 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  maestro.orchestra.cse.unsw.edu.au.
cse.unsw.edu.au.      3600  IN  NS  beethoven.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   129.94.208.3

;; Query time: 0 msec
;; SERVER: 129.94.208.3#53(129.94.208.3)
;; WHEN: Thu Mar 14 19:07:17 2019
;; MSG SIZE rcvd: 144
```

Q11.

One physical machine CAN have serveral names (e.g. alias) but ONLY ONE IP addresses is associated with it.