

Exercise 3

Question 1

```
z5235242@vx8:/tmp_amd/reed/export/reed/5/z5235242/Desktop$ dig www.eecs.berkeley.edu

; <<> DiG 9.9.5-9+deb8u19-Debian <<> www.eecs.berkeley.edu
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 41814
;; 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.    3239    IN      CNAME   live-eecs.pantheonsite.io.
live-eecs.pantheonsite.io. 600     IN      CNAME   fe1.edge.pantheon.io.
fe1.edge.pantheon.io.     300     IN      A       23.185.0.1

;; AUTHORITY SECTION:
edge.pantheon.io.         193     IN      NS       ns-1213.awsdns-23.org.
edge.pantheon.io.         193     IN      NS       ns-644.awsdns-16.net.
edge.pantheon.io.         193     IN      NS       ns-233.awsdns-29.com.
edge.pantheon.io.         193     IN      NS       ns-2013.awsdns-59.co.uk.

;; ADDITIONAL SECTION:
ns-233.awsdns-29.com.    47800   IN      A        205.251.192.233
ns-644.awsdns-16.net.    166810  IN      A        205.251.194.132
ns-1213.awsdns-23.org.   61582   IN      A        205.251.196.189
ns-1213.awsdns-23.org.   61582   IN      AAAA     2600:9000:5304:bd00::1
ns-2013.awsdns-59.co.uk. 159320  IN      A        205.251.199.221

;; Query time: 18 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Fri Jun 26 22:00:47 AEST 2020
;; MSG SIZE rcvd: 369
```

IP address: 23.185.0.1

Type: A

Question2

Canonical name: fe1.edge.pantheon.io

The alias is more easy to remember.

Question3

Authority section holds four NS origin records for eecs.berkeley.edu domain. The information shows that getting the IP address of www.eecs.berkeley.edu from my current computer machine has experienced four local DNS servers.

From the details in additional section, we can know the IP address(IPv4 and IPv6) of those authoritative name servers.

Question4

129.94.242.2

```
*****
[weill % 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: 54188
;; 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.         40511   IN      NS      ns.eecs.berkeley.edu.
eecs.berkeley.edu.         40511   IN      NS      ns.CS.berkeley.edu.
eecs.berkeley.edu.         40511   IN      NS      adns3.berkeley.edu.
eecs.berkeley.edu.         40511   IN      NS      adns2.berkeley.edu.
eecs.berkeley.edu.         40511   IN      NS      adns1.berkeley.edu.

;; ADDITIONAL SECTION:
ns.CS.berkeley.edu.        32059   IN      A        169.229.60.61
ns.eecs.berkeley.edu.      61342   IN      A        169.229.60.153
adns1.berkeley.edu.        8992    IN      A        128.32.136.3
adns1.berkeley.edu.        4243    IN      AAAA     2607:f140:ffff:fffe::3
adns2.berkeley.edu.        8992    IN      A        128.32.136.14
adns2.berkeley.edu.        8992    IN      AAAA     2607:f140:ffff:fffe::e
adns3.berkeley.edu.        7827    IN      A        192.107.102.142
adns3.berkeley.edu.        7827    IN      AAAA     2607:f140:a000:d::abc

;; Query time: 2 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Jun 30 03:07:47 AEST 2020
;; MSG SIZE rcvd: 307
```

Question5

As shown in the picture above,

DNS nameserver and its IP:

ns.CS.berkeley.edu 169.229.60.61

ns.eecs.berkeley.edu 169.229.60.153

adns1.berkeley.edu 128.32.136.3

adns2.berkeley.edu 128.32.136.14

adns3.berkeley.edu 192.107.102.142

NS for nameserver, A for IP (A for IPv4, AAAA for IPv6)

Question6

According to the picture below,

webserver.seecs.nust.edu.pk

Type: PTR

```

weill % 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: 245
;; 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. 201 IN      PTR      webserver.seecs.nust.edu.pk.

;; AUTHORITY SECTION:
101.68.111.in-addr.arpa. 5079 IN      NS       ns2.hec.gov.pk.
101.68.111.in-addr.arpa. 5079 IN      NS       ns1.hec.gov.pk.

;; ADDITIONAL SECTION:
ns1.hec.gov.pk.           201      IN      A        103.4.93.5
ns2.hec.gov.pk.           201      IN      A        103.4.93.6

;; Query time: 0 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Jun 30 03:23:04 AEST 2020
;; MSG SIZE rcvd: 172

```

Question7

According to the picture below, any authoritative answer is not gotten(flags do not have 'aa'). This is because that the DNS that is querying is not the source of the original record of DNS. It is actually what we got from the DNS server set by the domain, i.e. it has authority for the CSE domain but not for Yahoo.

```

weill % 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: 8615
;; 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.          1070     IN      MX      1 mta7.am0.yahoodns.net.
yahoo.com.          1070     IN      MX      1 mta5.am0.yahoodns.net.
yahoo.com.          1070     IN      MX      1 mta6.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.          50016    IN      NS       ns4.yahoo.com.
yahoo.com.          50016    IN      NS       ns1.yahoo.com.
yahoo.com.          50016    IN      NS       ns3.yahoo.com.
yahoo.com.          50016    IN      NS       ns5.yahoo.com.
yahoo.com.          50016    IN      NS       ns2.yahoo.com.

;; ADDITIONAL SECTION:
ns1.yahoo.com.      200401   IN      A        68.180.131.16
ns1.yahoo.com.      50016    IN      AAAA     2001:4998:130::1001
ns2.yahoo.com.      118420   IN      A        68.142.255.16
ns2.yahoo.com.      31079    IN      AAAA     2001:4998:140::1002
ns3.yahoo.com.      633      IN      A        27.123.42.42
ns3.yahoo.com.      633      IN      AAAA     2406:8600:f03f:1f8::1003
ns4.yahoo.com.      28118    IN      A        98.138.11.157
ns5.yahoo.com.      24641    IN      A        202.165.97.53
ns5.yahoo.com.      24486    IN      AAAA     2406:2000:ff60::53

;; Query time: 0 msec
;; SERVER: 129.94.242.33#53(129.94.242.33)
;; WHEN: Tue Jun 30 03:35:04 AEST 2020
;; MSG SIZE rcvd: 399

```

Question8

According to the picture below, we cannot get a response(status: REFUSED). This is because that the name server does not have any response to DNS queries sent from machines that are not in the Berkeley network, which could improve its security.

```
weill % dig @ns.CS.berkeley.edu yahoo.com MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @ns.CS.berkeley.edu yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: REFUSED, id: 55981
;; 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: 168 msec
;; SERVER: 169.229.60.61#53(169.229.60.61)
;; WHEN: Tue Jun 30 03:36:38 AEST 2020
;; MSG SIZE rcvd: 38
```

Question9

According to the picture below, the type is NS

```
weber % dig @ns4.yahoo.com yahoo.com MX

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @ns4.yahoo.com yahoo.com MX
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 41427
;; 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 mta6.am0.yahoodns.net.
yahoo.com.                1800    IN      MX      1 mta5.am0.yahoodns.net.
yahoo.com.                1800    IN      MX      1 mta7.am0.yahoodns.net.

;; AUTHORITY SECTION:
yahoo.com.                172800  IN      NS       ns1.yahoo.com.
yahoo.com.                172800  IN      NS       ns2.yahoo.com.
yahoo.com.                172800  IN      NS       ns5.yahoo.com.
yahoo.com.                172800  IN      NS       ns3.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.            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: 188 msec
;; SERVER: 98.138.11.157#53(98.138.11.157)
;; WHEN: Tue Jun 30 03:46:51 AEST 2020
;; MSG SIZE rcvd: 399
```

Question10

For lyre00.cse.unsw.edu.au:

1. Find the name server (query type NS) of the "." domain (root domain).

```
weber % dig . NS

; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> . NS
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 21878
;; 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:
.                               57783   IN      NS      l.root-servers.net.
.                               57783   IN      NS      e.root-servers.net.
.                               57783   IN      NS      i.root-servers.net.
.                               57783   IN      NS      j.root-servers.net.
.                               57783   IN      NS      c.root-servers.net.
.                               57783   IN      NS      b.root-servers.net.
.                               57783   IN      NS      d.root-servers.net.
.                               57783   IN      NS      a.root-servers.net.
.                               57783   IN      NS      f.root-servers.net.
.                               57783   IN      NS      h.root-servers.net.
.                               57783   IN      NS      m.root-servers.net.
.                               57783   IN      NS      k.root-servers.net.
.                               57783   IN      NS      g.root-servers.net.

;; ADDITIONAL SECTION:
a.root-servers.net.  52033   IN      A       198.41.0.4
a.root-servers.net.  31658   IN      AAAA    2001:503:ba3e::2:30
b.root-servers.net.  253334  IN      A       199.9.14.201
b.root-servers.net.  48069   IN      AAAA    2001:500:200::b
c.root-servers.net.  283239  IN      A       192.33.4.12
c.root-servers.net.  38067   IN      AAAA    2001:500:2::c
d.root-servers.net.  470067  IN      A       199.7.91.13
d.root-servers.net.  379741  IN      AAAA    2001:500:2d::d
e.root-servers.net.  32619   IN      A       192.203.230.10
e.root-servers.net.  464158  IN      AAAA    2001:500:a8::e
f.root-servers.net.  333166  IN      A       192.5.5.241
f.root-servers.net.  47867   IN      AAAA    2001:500:2f::f
g.root-servers.net.  281946  IN      A       192.112.36.4
g.root-servers.net.  598039  IN      AAAA    2001:500:12::d0d
h.root-servers.net.  343382  IN      A       198.97.190.53
h.root-servers.net.  284804  IN      AAAA    2001:500:11::53
i.root-servers.net.  218988  IN      A       192.36.148.17
i.root-servers.net.  379741  IN      AAAA    2001:7fe::53
j.root-servers.net.  508169  IN      A       192.58.128.30
j.root-servers.net.  151466  IN      AAAA    2001:503:c27::2:30
k.root-servers.net.  283239  IN      A       193.0.14.129
k.root-servers.net.  84967   IN      AAAA    2001:7fd::1
l.root-servers.net.  144533  IN      A       199.7.83.42
l.root-servers.net.  49124   IN      AAAA    2001:500:9f::42
m.root-servers.net.  582364  IN      A       202.12.27.33
m.root-servers.net.  134659  IN      AAAA    2001:dc3::35

;; Query time: 1 msec
;; SERVER: 129.94.242.2#53(129.94.242.2)
;; WHEN: Tue Jun 30 03:51:50 AEST 2020
;; MSG SIZE rcvd: 811
```

2. Query one of root nameservers(choose the first one here)

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

; <<> DiG 9.9.5-9+deb8u19-Debian <<> @198.41.0.4 lyre00.cse.unsw.edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 61239
;; flags: qr rd; QUERY: 1, ANSWER: 0, AUTHORITY: 9, ADDITIONAL: 19
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1472
;; QUESTION SECTION:
;lyre00.cse.unsw.edu.au.                IN      NS

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

;; ADDITIONAL SECTION:
s.au.                172800 IN      A       58.65.254.73
c.au.                172800 IN      A       162.159.24.179
d.au.                172800 IN      A       162.159.25.38
m.au.                172800 IN      A       156.154.100.24
n.au.                172800 IN      A       156.154.101.24
q.au.                172800 IN      A       65.22.196.1
r.au.                172800 IN      A       65.22.197.1
s.au.                172800 IN      A       65.22.198.1
t.au.                172800 IN      A       65.22.199.1
a.au.                172800 IN      AAAA    2407:6e00:254:306::73
c.au.                172800 IN      AAAA    2400:cb00:2049:1::a29f:18b3
d.au.                172800 IN      AAAA    2400:cb00:2049:1::a29f:1926
m.au.                172800 IN      AAAA    2001:502:2eda::24
n.au.                172800 IN      AAAA    2001:502:ad09::24
q.au.                172800 IN      AAAA    2a01:8840:be::1
r.au.                172800 IN      AAAA    2a01:8840:bf::1
s.au.                172800 IN      AAAA    2a01:8840:c0::1
t.au.                172800 IN      AAAA    2a01:8840:c1::1

;; Query time: 117 msec
;; SERVER: 198.41.0.4#53(198.41.0.4)
;; WHEN: Tue Jun 30 03:55:34 AEST 2020
;; MSG SIZE rcvd: 591
```

3. Query one of the .au name servers(we choose the first one here)

```
weber % dig @58.65.254.73 lyre00.cse.unsw.edu.au NS

; <<> DiG 9.9.5-9+deb8u19-Debian <<> @58.65.254.73 lyre00.cse.unsw.edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 18897
;; 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      NS

;; AUTHORITY SECTION:
edu.au.            86400 IN      NS      q.au.
edu.au.            86400 IN      NS      s.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: 158 msec
;; SERVER: 58.65.254.73#53(58.65.254.73)
;; WHEN: Tue Jun 30 04:05:19 AEST 2020
;; MSG SIZE rcvd: 291
```

4. Query for one of the edu.au. nameservers(we choose the first one here)


```

weber % dig @65.22.196.1 lyre00.cse.unsw.edu.au NS
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @65.22.196.1 lyre00.cse.unsw.edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 14026
;; 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      NS

;; AUTHORITY SECTION:
unsw.edu.au.                     900     IN      NS      ns1.unsw.edu.au.
unsw.edu.au.                     900     IN      NS      ns2.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 Jun 30 04:06:42 AEST 2020
;; MSG SIZE rcvd: 209

```

5. Query for one of the UNSW nameservers (we choose the first one here)

```

weber % dig @129.94.0.192 lyre00.cse.unsw.edu.au NS
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.0.192 lyre00.cse.unsw.edu.au NS
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 3199
;; 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      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: 129.94.0.192#53(129.94.0.192)
;; WHEN: Tue Jun 30 04:08:47 AEST 2020
;; MSG SIZE rcvd: 171

```

6. Query for one of the UNSW CSE nameservers (we choose the first one here, but the query type should be A this time)

```

weber % dig @129.94.172.11 lyre00.cse.unsw.edu.au A
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.172.11 lyre00.cse.unsw.edu.au A
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 41600
;; 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      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        129.94.242.2

;; Query time: 1 msec
;; SERVER: 129.94.172.11#53(129.94.172.11)
;; WHEN: Tue Jun 30 04:11:52 AEST 2020
;; MSG SIZE rcvd: 155

```

The IP address for lyre00.cse.unsw.edu.au is 129.94.210.20

We have to query to DNS servers 5 times to get the authoritative answer.

Question11

Yes, one physical machine could have several names and/or IP addresses associated with it.