# ECS 152A - Project 2 - Part C

Han Nguyen (917278789) & Blake McMurray (999162729)

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## Question (a)



Figure 1: www.cs.ucdavis.edu using "dig"

As shown in Figure 1, by typing "dig www.cs.ucdavis.edu +trace", the list of the names of DNS servers in the delegation chain is:

a.root-servers.net

c.edu-servers.net

dns-two.ucdavis.edu

dns-one.ucdavis.edu

# Question (b)

```
; <<>> DiG 9.10.6 <<>> www.google.com +trace
;; global options: +cmd
.                       476060  IN      NS      g.root-servers.net.
.                       476060  IN      NS      h.root-servers.net.
.                       476060  IN      NS      i.root-servers.net.
.                       476060  IN      NS      j.root-servers.net.
.                       476060  IN      NS      k.root-servers.net.
.                       476060  IN      NS      l.root-servers.net.
.                       476060  IN      NS      m.root-servers.net.
.                       476060  IN      NS      a.root-servers.net.
.                       476060  IN      NS      b.root-servers.net.
.                       476060  IN      NS      c.root-servers.net.
.                       476060  IN      NS      d.root-servers.net.
.                       476060  IN      NS      e.root-servers.net.
.                       476060  IN      NS      f.root-servers.net.
.                       476060  IN      RRSIG   NS 8 0 518400 20210306170000 20210221160000 42351 . XnuKeoOa89EQx1BmZGhagMJEThNd05MqwedxSYPKyMDYTlF7KLdHmtof aDKJNMoO6l4E/dqPU9D4Fmnim9sJgmCCjUyrTh
ns10q4EThwnf0K9mSK yq+sC3p64EiDliiqu74Lr2SIccPxyS4r3BJvoroU35OkwQ49+ancn6zX VoEZ2stfiBy77CsyVKmajEFqZ/M8Clm7K+VuXrEglLlnW4X/OKpO43C5 eT/QEOwAAE4pxMHZPrQY+cYq68cyMARc1iL+DJcK8vc3hi4kODt3HW+Z Vxsl/
X7cJC6o6Ldqrj0xi58ux97iDpufQnZuU94YR82H/hOY0NNmOv7w VKuimA==
;; Received 1097 bytes from 192.168.1.1#53(192.168.1.1) in 89 ms

com.                    172800  IN      NS      a.gtld-servers.net.
com.                    172800  IN      NS      b.gtld-servers.net.
com.                    172800  IN      NS      c.gtld-servers.net.
com.                    172800  IN      NS      d.gtld-servers.net.
com.                    172800  IN      NS      e.gtld-servers.net.
com.                    172800  IN      NS      f.gtld-servers.net.
com.                    172800  IN      NS      g.gtld-servers.net.
com.                    172800  IN      NS      h.gtld-servers.net.
com.                    172800  IN      NS      i.gtld-servers.net.
com.                    172800  IN      NS      j.gtld-servers.net.
com.                    172800  IN      NS      k.gtld-servers.net.
com.                    172800  IN      NS      l.gtld-servers.net.
com.                    172800  IN      NS      m.gtld-servers.net.
com.                    86400   IN      DS      30909 8 2 E2D3C916F6DEEAC73294E8268FB5885044A833FC5459588F4A9184CF C41A5766
com.                    86400   IN      RRSIG   DS 8 1 86400 20210306170000 20210221160000 42351 . JI+Z/ftJwoLjybAxp3n8kDPywR3RgnP/W1Kzcq8ElLGh9XJ17ei0Ep4i gKCwlPyiqqIWJ1vzkOEiDPIXIPnoieWZfB7MtJW
qNNk7JXRFyTTmDg92 jmVxUiVNuvQlKG3C0VbLH2uhdGOc2aLjWahCHxwdZ29c3zt09zhSQXjr aKrPuewKnvJxGF5WxOqIWhexkIgAyKxrSESGE0llYs+u78j1enso+En6 VsNHifeGnF3XtGhhu9VH6G4bZ1NOJgJ3+osbnC6z0KaBwqHXTZWaWYwd 8f6H2E
9eacOgLNzzYAetYSNryWAHbqBNcmlnAqUjqJzd1U13E1ibdphm HCtlTw==
;; Received 1174 bytes from 199.7.83.42#53(l.root-servers.net) in 24 ms

google.com.             172800  IN      NS      ns2.google.com.
google.com.             172800  IN      NS      ns1.google.com.
google.com.             172800  IN      NS      ns3.google.com.
google.com.             172800  IN      NS      ns4.google.com.
CK0POJMG874LJREF7EFN8430QVIT8BSM.com. 86400 IN NSEC3 1 1 0 - CK0Q1GIN43N1ARRC9OSM6QPQR81H5M9A  NS SOA RRSIG DNSKEY NSEC3PARAM
CK0POJMG874LJREF7EFN8430QVIT8BSM.com. 86400 IN RRSIG NSEC3 8 2 86400 20210225054054 20210218043054 58540 com. fe1Hs4Cl3aSrgLsMsTPf4uEnSZcQzZEKOElo10rB2E8ivtxc0ujuuFlT t86Ht3qZ3+VJRSvewJMzz7VDa5P+
45Gb9L1DH6oM2nK9rSYFNma15g3Q yBuqq09Y4sWE0C7ETiCiL8EdSCpTvaQe4Zl3lEyFL++isa+Cr3RjKv/Z 4S1ru8GWkiOk9+U2B6YsKvUXI0Vgi/LjHSE9JtcKmo1CnA==
S84BDVKNH5AGDSI7F5J0O3NPRHU0G7JQ.com. 86400 IN NSEC3 1 1 0 - S84BUO64GQCVN69RJFUO6LVC7FSLUNJ5  NS DS RRSIG
S84BDVKNH5AGDSI7F5J0O3NPRHU0G7JQ.com. 86400 IN RRSIG NSEC3 8 2 86400 20210226053334 20210219042334 58540 com. uW8/NTDAfYcqA4MNQ1Xpvv955SHyeMYi7Op0Pn4tmVyywZ9l+NH2I5+A iVNo1pf3LadhYzAPQvgbFjy0EQTS
9dGpinxcC4ZFxTXUvqoLlZZvVzXs QZ2SwOnHOECcSLap1yO+sjWkStnKIKA/go/4daRJ/extP5ynomLjGwXk uRLXj7SV2P9eFMX3cDlIGhezZZcoCo/5O7zpqJXBI9jNEw==
;; Received 840 bytes from 192.55.83.30#53(m.gtld-servers.net) in 24 ms

www.google.com.         300     IN      A       142.250.72.196
;; Received 59 bytes from 216.239.32.10#53(ns1.google.com) in 53 ms

HanMBP:~ hanthesuperman$
```

Figure 2: www.google.com using "dig"

As shown in Figure 2, by typing "dig www.google.com +trace", the list of the names of DNS servers in the delegation chain is:

l.root-servers.net

m.gtld-servers.net

ns1.google.com

Figure 3: www.yahoo.com using "dig"

As shown in Figure 3, by typing "dig www.yahoo.com +trace", the list of the names of DNS servers in the delegation chain is:

h.root-servers.net

l.gtld-servers.net

ns1.yahoo.com

Figure 4: www.amazon.com using "dig"

As shown in Figure 4, by typing "dig www.amazon.com +trace", the list of the names of DNS servers in the delegation chain is:

c.root-servers.net

e.gtld-servers.net

ns3.p31.dynect.net