

EXERCISE 3

1.

IP Address: 23.185.0.1
Type: A

Output from command:
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> www.eecs.berkeley.edu
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 39133
;; flags: qr rd ra; QUERY: 1, ANSWER: 3, AUTHORITY: 4, ADDITIONAL: 8

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

;; ANSWER SECTION:
www.eecs.berkeley.edu. 34455 IN CNAME live-eecs.pantheonsite.io.
live-eecs.pantheonsite.io. 170 IN CNAME fel.edge.pantheon.io.
fel.edge.pantheon.io. 185 IN A 23.185.0.1

;; AUTHORITY SECTION:
edge.pantheon.io. 185 IN NS ns-1213.awsdns-23.org.
edge.pantheon.io. 185 IN NS ns-644.awsdns-16.net.
edge.pantheon.io. 185 IN NS ns-2013.awsdns-59.co.uk.
edge.pantheon.io. 185 IN NS ns-233.awsdns-29.com.

;; ADDITIONAL SECTION:
ns-233.awsdns-29.com. 119154 IN A 205.251.192.233
ns-644.awsdns-16.net. 64361 IN A 205.251.194.132
ns-644.awsdns-16.net. 63238 IN AAAA 2600:9000:5302:8400::1
ns-1213.awsdns-23.org. 62613 IN A 205.251.196.189
ns-1213.awsdns-23.org. 62613 IN AAAA 2600:9000:5304:bd00::1
ns-2013.awsdns-59.co.uk. 63233 IN A 205.251.199.221
ns-2013.awsdns-59.co.uk. 56867 IN AAAA 2600:9000:5307:dd00::1

;; Query time: 0 msec
;; SERVER: 129.94.242.45#53(129.94.242.45)
;; WHEN: Tue Jun 30 02:29:06 AEST 2020
;; MSG SIZE rcvd: 425
2.

Canocial name: live-eecs.pantheonsite.io
Reason: Multiple domain names can map to the same IP for accessability
meaning the site is easily accessed in multiple ways
3.

Authority: Tells us what servers are the authority for answering DNS
queries about the queried domain.
Additional: Provides any extra information that may be wanted but not
specifically requested by dig. In this example, the
additional section gives the IP addresses for the authoritativ
e servers
4.

IP Address: 129.94.242.45
5.

NAME SERVER		TYPE	IP ADDRESS
ns.CS.berkeley.edu.		A	169.229.60.
ns.eecs.berkeley.edu.	A		169.229.60.153
adns1.berkeley.edu.		A	128.32.136.
adns1.berkeley.edu.		AAAA	2607:f140:ffff:fffe
adns2.berkeley.edu.		A	128.32.136.
adns2.berkeley.edu.		AAAA	2607:f140:ffff:fffe

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bc

```
adns3.berkeley.edu.          A          192.107.102
adns3.berkeley.edu.          AAAA         2607:f140:a000:d::a
```

Output from new dig command (no www):

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> eecs.berkeley.edu
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 32081
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 5, ADDITIONAL: 9
```

;; OPT PSEUDOSECTION:

; EDNS: version: 0, flags:; udp: 4096

;; QUESTION SECTION:

```
;eecs.berkeley.edu.          IN          A
```

;; ANSWER SECTION:

```
eecs.berkeley.edu.          75711      IN          A          23.185.0.1
```

;; AUTHORITY SECTION:

```
eecs.berkeley.edu.          40660      IN          NS          ns.CS.berkeley.edu.
eecs.berkeley.edu.          40660      IN          NS          ns.eecs.berkeley.edu.
eecs.berkeley.edu.          40660      IN          NS          adns1.berkeley.edu.
eecs.berkeley.edu.          40660      IN          NS          adns3.berkeley.edu.
eecs.berkeley.edu.          40660      IN          NS          adns2.berkeley.edu.
```

;; ADDITIONAL SECTION:

```
ns.CS.berkeley.edu.          32208      IN          A          169.229.60.61
ns.eecs.berkeley.edu.          61491      IN          A          169.229.60.153
adns1.berkeley.edu.          9141       IN          A          128.32.136.3
adns1.berkeley.edu.          4392       IN          AAAA        2607:f140:ffff:fffe::3
adns2.berkeley.edu.          9141       IN          A          128.32.136.14
adns2.berkeley.edu.          9141       IN          AAAA        2607:f140:ffff:fffe::e
adns3.berkeley.edu.          7976       IN          A          192.107.102.142
adns3.berkeley.edu.          7976       IN          AAAA        2607:f140:a000:d::abc
```

;; Query time: 0 msec

;; SERVER: 129.94.242.45#53(129.94.242.45)

;; WHEN: Tue Jun 30 03:05:18 AEST 2020

;; MSG SIZE rcvd: 323

6. webserver.seecs.nust.edu.pk
Type: PTR

Output:

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> -x 111.68.101.54
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 54274
;; 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. 2920 IN          PTR          webserver.seecs.nust.edu.pk
```

;; AUTHORITY SECTION:

```
101.68.111.in-addr.arpa. 5143 IN          NS          ns2.hec.gov.pk.
101.68.111.in-addr.arpa. 5143 IN          NS          ns1.hec.gov.pk.
```

;; ADDITIONAL SECTION:

```
ns1.hec.gov.pk.          2920      IN          A          103.4.93.5
```

```
ns2.hec.gov.pk.          265      IN      A      103.4.93.6
```

```
;; Query time: 0 msec
;; SERVER: 129.94.242.45#53(129.94.242.45)
;; WHEN: Tue Jun 30 03:22:00 AEST 2020
;; MSG SIZE rcvd: 172
```

7. No, there is no aa flag (authoritative answer).

Output:

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @129.94.242.33 yahoo.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 20408
;; flags: qr rd ra; QUERY: 1, ANSWER: 6, AUTHORITY: 5, ADDITIONAL: 10
```

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

```
;; ANSWER SECTION:
yahoo.com.                1681    IN      A      98.138.219.231
yahoo.com.                1681    IN      A      98.138.219.232
yahoo.com.                1681    IN      A      72.30.35.9
yahoo.com.                1681    IN      A      72.30.35.10
yahoo.com.                1681    IN      A      98.137.246.7
yahoo.com.                1681    IN      A      98.137.246.8
```

```
;; AUTHORITY SECTION:
yahoo.com.                50315   IN      NS      ns3.yahoo.com.
yahoo.com.                50315   IN      NS      ns2.yahoo.com.
yahoo.com.                50315   IN      NS      ns4.yahoo.com.
yahoo.com.                50315   IN      NS      ns1.yahoo.com.
yahoo.com.                50315   IN      NS      ns5.yahoo.com.
```

```
;; ADDITIONAL SECTION:
ns1.yahoo.com.            200700  IN      A      68.180.131.16
ns1.yahoo.com.            50315   IN      AAAA   2001:4998:130::1001
ns2.yahoo.com.            118719  IN      A      68.142.255.16
ns2.yahoo.com.            31378   IN      AAAA   2001:4998:140::1002
ns3.yahoo.com.            932     IN      A      27.123.42.42
ns3.yahoo.com.            932     IN      AAAA   2406:8600:f03f:1f8::1003
ns4.yahoo.com.            28417   IN      A      98.138.11.157
ns5.yahoo.com.            24940   IN      A      202.165.97.53
ns5.yahoo.com.            24785   IN      AAAA   2406:2000:ff60::53
```

```
;; Query time: 0 msec
;; SERVER: 129.94.242.33#53(129.94.242.33)
;; WHEN: Tue Jun 30 03:30:05 AEST 2020
;; MSG SIZE rcvd: 416
```

8. This time the status is refused

Output:

```
; <<>> DiG 9.9.5-9+deb8u19-Debian <<>> @169.229.60.61 yahoo.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: REFUSED, id: 41966
;; 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:
```

Lab3.txt

Tue Jun 30 05:24:01 2020

4

;yahoo.com.

IN

A

;; Query time: 167 msec

;; SERVER: 169.229.60.61#53(169.229.60.61)

;; WHEN: Tue Jun 30 03:35:49 AEST 2020

;; MSG SIZE rcvd: 38

10.

Yes