

## 1 Telnet para um servidor

```
mint@mint:~$ dig github.com

;<<>> Dig 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> github.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 61061
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;github.com.                IN      A

;; ANSWER SECTION:
github.com.                60      IN      A      20.201.28.151

;; Query time: 23 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:50:16 -03 2023
;; MSG SIZE rcvd: 55
```

Figura 1: Dig para *github.com*

```
mint@mint:~$ dig 20.201.28.151

;<<>> Dig 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> 20.201.28.151
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 54871
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;20.201.28.151.             IN      A

;; AUTHORITY SECTION:
.                10800   IN      SOA     a.root-servers.net. nstld.verisign-grs.com. 2023122201 1800 900 604800 86400

;; Query time: 52 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:51:36 -03 2023
;; MSG SIZE rcvd: 117
```

Figura 2: Dig para o top level

```
mint@mint:~$ dig a.root-servers.net. nstld.verisign-grs.com. 2023122201 1800 900 604800 86400

;<<>> Dig 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> a.root-servers.net. nstld.verisign-grs.com. 2023122201 1800 900 604800 86400
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 36634
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;a.root-servers.net.       IN      A

;; ANSWER SECTION:
a.root-servers.net.       476014  IN      A      198.41.0.4

;; Query time: 28 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:53:27 -03 2023
;; MSG SIZE rcvd: 63

;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 28579
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;nstld.verisign-grs.com.   IN      A

;; AUTHORITY SECTION:
verisign-grs.com.         5       IN      SOA     av1.nstld.com. mdnshelp.verisign.com. 1703204335 300 7200 1209600 5
```

Figura 3: Dig para o autoridade, primeira parte

```

;; Query time: 484 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:53:28 -03 2023
;; MSG SIZE rcvd: 115

;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: SERVFAIL, id: 16376
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;2023122201.                IN      A

;; Query time: 0 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:53:28 -03 2023
;; MSG SIZE rcvd: 39

;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: SERVFAIL, id: 53894
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;1800.                      IN      A

;; Query time: 0 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Fri Dec 22 19:53:28 -03 2023
;; MSG SIZE rcvd: 33

```

Figura 4: Dig para o autoridade, segunda parte