

```
joe@ns2:~$ echo "I have already made sure networking is correct: I can ssh to it. I have updated my /etc/hosts, and /etc/hostname files"
```

```
I have already made sure networking is correct: I can ssh to it. I have updated my /etc/hosts, and /etc/hostname files
```

```
joe@ns2:~$ cat /etc/hosts
```

```
127.0.0.1 localhost
```

```
144.38.199.37 ns2.thegummibear.com ns2
```

```
# The following lines are desirable for IPv6 capable hosts
```

```
::1 ip6-localhost ip6-loopback
```

```
fe00::0 ip6-localnet
```

```
ff00::0 ip6-mcastprefix
```

```
ff02::1 ip6-allnodes
```

```
ff02::2 ip6-allrouters
```

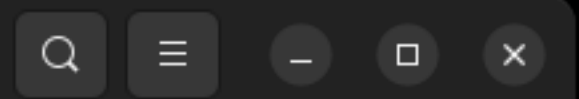
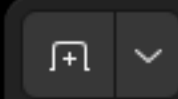
```
joe@ns2:~$ cat /etc/hostname
```

```
ns2
```

```
joe@ns2:~$ echo "And I have rebooted"
```

```
And I have rebooted
```

```
joe@ns2:~$
```



```
joe@ns2:~$ sudo apt update && sudo apt install bind9 -y
```

```
joe@ns2:~$ cd /etc/bind
```

```
joe@ns2:/etc/bind$ ls
```

```
bind.keys  db.127  db.empty  named.conf          named.conf.local  rndc.key
db.0       db.255  db.local  named.conf.default-zones  named.conf.options  zones.rfc1918
```

```
joe@ns2:/etc/bind$ sudo vi named.conf.local
```



```
joe@ns2:/etc/bind$ sudo service bind9 restart
```

```
joe@ns2:/etc/bind$ echo "No errors"
```

```
No errors
```

```
joe@ns2:/etc/bind$ sudo service bind9 status
```

```
● named.service - BIND Domain Name Server
```

```
Loaded: loaded (/lib/systemd/system/named.service; enabled; vendor preset: enabled)
```

```
Active: active (running) since Tue 2023-07-18 18:58:53 UTC; 11s ago
```

```
Docs: man:named(8)
```

```
Process: 1841 ExecStart=/usr/sbin/named $OPTIONS (code=exited, status=0/SUCCESS)
```

```
Main PID: 1842 (named)
```

```
Tasks: 3 (limit: 1026)
```

```
Memory: 5.2M
```

```
CPU: 47ms
```

```
CGroup: /system.slice/named.service
```

```
└─1842 /usr/sbin/named -u bind
```

```
Jul 18 18:58:53 ns2 named[1842]: zone 0.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:58:53 ns2 named[1842]: zone 127.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:58:53 ns2 named[1842]: zone 255.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:58:53 ns2 named[1842]: zone thegummibear.com/IN: Loaded serial 2
```

```
Jul 18 18:58:53 ns2 named[1842]: zone localhost/IN: loaded serial 2
```

```
Jul 18 18:58:53 ns2 named[1842]: all zones loaded
```

```
Jul 18 18:58:53 ns2 systemd[1]: Started BIND Domain Name Server.
```

```
Jul 18 18:58:53 ns2 named[1842]: running
```

```
Jul 18 18:59:03 ns2 named[1842]: managed-keys-zone: Unable to fetch DNSKEY set '.': timed out
```

```
Jul 18 18:59:03 ns2 named[1842]: resolver priming query complete: timed out
```

```
joe@ns2:/etc/bind$ echo "looks ok. It loaded the serial number 2"
```

```
looks ok. It loaded the serial number 2
```

```
joe@ns2:/etc/bind$
```

```
joe@ns2:/etc/bind$ echo "Information is automatically transferred from master to slave. Don't try and create a zone file on the slave, only on the master"
Information is automatically transferred from master to slave. Don't try and create a zone file on the slave, only on the master
joe@ns2:/etc/bind$
```

```
joe@ns2:/etc/bind$ ls -l /var/cache/bind/
```

```
total 12
```

```
-rw-r--r-- 1 bind bind 416 Jul 18 18:58 db.thegummibear.com
```

```
-rw-r--r-- 1 bind bind 297 Jul 18 18:59 managed-keys.bind
```

```
-rw-r--r-- 1 bind bind 1089 Jul 18 18:59 managed-keys.bind.jnl
```

```
joe@ns2:/etc/bind$ echo "Woot, my zone file is there. You can try to look at it, but you don't edit anything here"
```

```
Woot, my zone file is there. You can try to look at it, but you don't edit anything here
```

```
joe@ns2:/etc/bind$
```



```
joe@ns2:/etc/bind$ echo "Do your dig tests"
```

```
Do your dig tests
```

```
joe@ns2:/etc/bind$ dig @localhost ns1.thegummibear.com
```

```
; <<>> DiG 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> @localhost ns1.thegummibear.com
```

```
; (1 server found)
```

```
;; global options: +cmd
```

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 17672
```

```
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
```

```
; EDNS: version: 0, flags:; udp: 1232
```

```
; COOKIE: 65ca0115cfb5aa360100000064b6e17d48c4e80aba357d70 (good)
```

```
;; QUESTION SECTION:
```

```
;ns1.thegummibear.com.          IN      A
```

```
;; ANSWER SECTION:
```

```
ns1.thegummibear.com.  86400  IN      A      144.38.199.36
```

```
;; Query time: 3 msec
```

```
;; SERVER: 127.0.0.1#53(localhost) (UDP)
```

```
;; WHEN: Tue Jul 18 19:01:17 UTC 2023
```

```
;; MSG SIZE rcvd: 93
```

```
joe@ns2:/etc/bind$ echo "Good"
```

```
Good
```

```
joe@ns2:/etc/bind$
```



```
joe@ns2:/etc/bind$ dig @localhost ns1.thegummibear.com | grep 144
ns1.thegummibear.com. 86400 IN A 144.38.199.36
joe@ns2:/etc/bind$ dig @localhost ns2.thegummibear.com | grep 144
ns2.thegummibear.com. 86400 IN A 144.38.199.37
joe@ns2:/etc/bind$ dig @localhost fs.thegummibear.com | grep 144
fs.thegummibear.com. 86400 IN A 144.38.199.35
joe@ns2:/etc/bind$ dig @localhost squidward.thegummibear.com | grep 144
squidward.thegummibear.com. 86400 IN A 144.38.199.35
joe@ns2:/etc/bind$ echo "I just filtered the output using grep to test all my A records"
I just filtered the output using grep to test all my A records
joe@ns2:/etc/bind$
```

```
joe@ns2:/etc/bind$ echo "Now ask the master"
```

```
Now ask the master
```

```
joe@ns2:/etc/bind$ dig @144.38.199.36 ns1.thegummibear.com A | grep 144
```

```
; <<>> DiG 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> @144.38.199.36 ns1.thegummibear.com A
```

```
ns1.thegummibear.com.      86400    IN       A        144.38.199.36
```

```
;; SERVER: 144.38.199.36#53(144.38.199.36) (UDP)
```

```
joe@ns2:/etc/bind$ dig @144.38.199.36 ns2.thegummibear.com A | grep 144
```

```
; <<>> DiG 9.18.12-0ubuntu0.22.04.2-Ubuntu <<>> @144.38.199.36 ns2.thegummibear.com A
```

```
ns2.thegummibear.com.      86400    IN       A        144.38.199.37
```

```
;; SERVER: 144.38.199.36#53(144.38.199.36) (UDP)
```

```
joe@ns2:/etc/bind$ echo "Looks like it is returning things ok"
```

```
Looks like it is returning things ok
```

```
joe@ns2:/etc/bind$
```

```
joe@ns2:/etc/bind$ echo "I think this is functioning correctly for now"  
I think this is functioning correctly for now  
joe@ns2:/etc/bind$
```