



```
joe@myserver:~$ echo "Going to set up my first nameserver"
```

```
Going to set up my first nameserver
```

```
joe@myserver:~$ echo "Make sure networking is appropriately working first"
```

```
Make sure networking is appropriately working first
```

```
joe@myserver:~$ echo "I am going to update the hostname"
```

```
I am going to update the hostname
```

```
joe@myserver:~$
```



```
joe@myserver:~$ sudo vi /etc/hostname
```



```
joe@myserver:~$ sudo vi /etc/hostname
[sudo] password for joe:
joe@myserver:~$ echo "Changes won't apply until you reboot"
Changes won't apply until you reboot
joe@myserver:~$ echo "Change /etc/hosts as well"
Change /etc/hosts as well
joe@myserver:~$ sudo vi /etc/hosts
```

```
127.0.0.1 localhost
127.0.1.1 myserver
```

```
# 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
```

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```
~
```

```
~
```

```
"/etc/hosts" 9L, 223B written
```

```
4,1
```

```
All
```

```
127.0.0.1 localhost
#I added the line below
#which is my ip address followed by the fqdn followed by the hostname
144.38.199.36 ns1.thegummibear.com ns1
```

```
# 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
```

```
~
```

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```

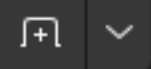
```
~
```

```
~
```

```
"/etc/hosts" 11L, 337B written
```

```
3,69
```

```
All
```



```
joe@myserver:~$ echo "reboot"
```

```
reboot
```

```
joe@myserver:~$ sudo reboo
```



```
joe@ns1:~$ echo "You will have to manually power it back on"
```

```
You will have to manually power it back on
```

```
joe@ns1:~$ echo "Now we will install the packages needed for DNS"
```

```
Now we will install the packages needed for DNS
```

```
joe@ns1:~$ sudo apt update
```




```
joe@ns1:~$ sudo apt install bind9
```

```
joe@ns1:~$ cd /etc/bind
```

```
joe@ns1:/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@ns1:/etc/bind$ echo "It created this directory and files for us, now we need to configure them appropriately"
```

```
It created this directory and files for us, now we need to configure them appropriately
```

```
joe@ns1:/etc/bind$
```



```
joe@ns1:/etc/bind$ sudo vi named.conf.local
```

```
//  
// Do any local configuration here  
//  
  
// Consider adding the 1918 zones here, if they are not used in your  
// organization  
//include "/etc/bind/zones.rfc1918";  
█
```

```
//  
// Do any local configuration here  
//  
  
// Consider adding the 1918 zones here, if they are not used in your  
// organization  
// include "/etc/bind/zones.rfc1918";  
// Essentially in this file we will tell it what other file it needs to look in to do any of our DNS trans  
lations  
// I want it to do translations for my domain that I purchased, so I add the following  
  
zone "thegummibear.com" {  
    //this is the master server for this domain  
    type master;  
    //this is the file that we should look in for translations  
    file "/etc/bind/db.thegummibear.com";  
    // we will transfer information about this domain to our secondary server  
    // I haven't set this one up yet, but I know the ip address  
    allow-transfer { 144.38.199.37; localhost; };  
    // send notifies to the slave server when changes are made  
    notify yes;  
    // allow queries from anywhere in the world  
    allow-query { any; };  
};  
  
//pay attention to quotes and semicolons above!!
```

```
joe@ns1:/etc/bind$ echo "Tell bind9 to read those changes"
```

```
Tell bind9 to read those changes
```

```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

```
joe@ns1:/etc/bind$ echo "If you have any messages print out, you will need to examine your logs to see what is happening. I will simulate that shortly"
```

```
If you have any messages print out, you will need to examine your logs to see what is happening. I will simulate that shortly
```

```
joe@ns1:/etc/bind$
```



```
joe@ns1:/etc/bind$ sudo service bind9 status
```

```
joe@ns1:/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 18:02:11 UTC; 1min 6s ago
```

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

```
Process: 1873 ExecStart=/usr/sbin/named $OPTIONS (code=exited, status=0/SUCCESS)
```

```
Main PID: 1874 (named)
```

```
Tasks: 4 (limit: 1012)
```

```
Memory: 5.3M
```

```
CPU: 50ms
```

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

```
└─1874 /usr/sbin/named -u bind
```

```
Jul 18 18:02:11 ns1 named[1874]: zone 0.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:02:11 ns1 named[1874]: zone localhost/IN: loaded serial 2
```

```
Jul 18 18:02:11 ns1 named[1874]: zone 127.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:02:11 ns1 named[1874]: zone thegummibear.com/IN: loading from master file /etc/bind/db.thegummi
```

```
Jul 18 18:02:11 ns1 named[1874]: zone thegummibear.com/IN: not loaded due to errors.
```

```
Jul 18 18:02:11 ns1 named[1874]: all zones loaded
```

```
Jul 18 18:02:11 ns1 systemd[1]: Started BIND Domain Name Server.
```

```
Jul 18 18:02:11 ns1 named[1874]: running
```

```
Jul 18 18:02:21 ns1 named[1874]: managed-keys-zone: Unable to fetch DNSKEY set '.': timed out
```

```
Jul 18 18:02:21 ns1 named[1874]: resolver priming query complete: timed out
```

```
lines 1-22/22 (END)
```



```
joe@ns1:/etc/bind$ echo "The errors in red are bad... we haven't created that file yet, so we need to"
The errors in red are bad... we haven't created that file yet, so we need to
joe@ns1:/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@ns1:/etc/bind$ cat named.conf.local | grep file
// Essentially in this file we will tell it what other file it needs to look in to do any of our DNS trans
lations
//this is the file that we should look in for translations
file "/etc/bind/db.thegummibear.com";
joe@ns1:/etc/bind$ echo "The /etc/bind/db.thegummibear.com is the file we told it to look for, we don't ha
ve it yet, lets create it"
The /etc/bind/db.thegummibear.com is the file we told it to look for, we don't have it yet, lets create it
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ sudo cp /etc/bind/db.empty /etc/bind/db.thegummibear.com
```

```
joe@ns1:/etc/bind$ echo "Let's start off with a template"
```

```
Let's start off with a template
```

```
joe@ns1:/etc/bind$ echo "We need to edit it now"
```

```
We need to edit it now
```

```
joe@ns1:/etc/bind$ sudo vi /etc/bind/db.thegummibear.com
```

```
; BIND reverse data file for empty rfc1918 zone
;
; DO NOT EDIT THIS FILE - it is used for multiple zones.
; Instead, copy it, edit named.conf, and use that copy.
;
$TTL      86400
@         IN      SOA      localhost. root.localhost. (
                        1          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        86400 )    ; Negative Cache TTL
;
@         IN      NS       localhost.
```

```
; db file for thegummibear.com
; this is just a comment and is not important
;
;
$TTL      86400
@         IN      SOA      ns1.thegummibear.com. root.ns1.thegummibear.com. (
                        1          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        86400 )    ; Negative Cache TTL
;

; don't forget the dots at the end of all your FQDNs
@         IN      NS       ns1.thegummibear.com.
@         IN      NS       ns2.thegummibear.com.

ns1       IN      A        144.38.199.36
ns2       IN      A        144.38.199.37
fs        IN      A        144.38.199.35
```

```
; we can add A records for any machine that we have previously created
; or that we will create
; they don't even have to be running
```

```
restart bind again so it can read the changes
```

```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

```
joe@ns1:/etc/bind$ echo "Yay. no errors printed out"
```

```
Yay. no errors printed out
```

```
joe@ns1:/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 18:16:11 UTC; 11s ago
```

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

```
Process: 2022 ExecStart=/usr/sbin/named $OPTIONS (code=exited, status=0/SUCCESS)
```

```
Main PID: 2023 (named)
```

```
Tasks: 3 (limit: 1012)
```

```
Memory: 5.3M
```

```
CPU: 50ms
```

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

```
└─2023 /usr/sbin/named -u bind
```

```
Jul 18 18:16:11 ns1 named[2023]: zone 255.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:16:11 ns1 named[2023]: zone localhost/IN: loaded serial 2
```

```
Jul 18 18:16:11 ns1 named[2023]: zone thegummibear.com/IN: loaded serial 1
```

```
Jul 18 18:16:11 ns1 named[2023]: zone 127.in-addr.arpa/IN: loaded serial 1
```

```
Jul 18 18:16:11 ns1 named[2023]: all zones loaded
```

```
Jul 18 18:16:11 ns1 systemd[1]: Started BIND Domain Name Server.
```

```
Jul 18 18:16:11 ns1 named[2023]: running
```

```
Jul 18 18:16:11 ns1 named[2023]: zone thegummibear.com/IN: sending notifies (serial 1)
```

```
Jul 18 18:16:21 ns1 named[2023]: managed-keys-zone: Unable to fetch DNSKEY set '.': timed out
```

```
Jul 18 18:16:21 ns1 named[2023]: resolver priming query complete: timed out
```

```
joe@ns1:/etc/bind$ echo "All looks good"
```

```
All looks good
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ echo "Lets test to see if queries will be resolved by using the dig command"
```

```
Lets test to see if queries will be resolved by using the dig command
```

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

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

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

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

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 49822
```

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

```
;; OPT PSEUDOSECTION:
```

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

```
; COOKIE: a36ab3e019b595590100000064b6d73607af8790fc88b267 (good)
```

```
;; QUESTION SECTION:
```

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

```
;; ANSWER SECTION:
```

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

```
;; Query time: 4 msec
```

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

```
;; WHEN: Tue Jul 18 18:17:26 UTC 2023
```

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

```
joe@ns1:/etc/bind$ echo "It gave me back an IP address. Yay"█
```

```
joe@ns1:/etc/bind$ echo "test for some other A records that you have in the file"
```

```
test for some other A records that you have in the file
```

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

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

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

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

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 28071
```

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

```
;; OPT PSEUDOSECTION:
```

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

```
; COOKIE: 755b77aaf64c6c760100000064b6d782b1b9af159ee4516d (good)
```

```
;; QUESTION SECTION:
```

```
;fs.thegummibear.com.          IN      A
```

```
;; ANSWER SECTION:
```

```
fs.thegummibear.com.          86400   IN      A      144.38.199.35
```

```
;; Query time: 0 msec
```

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

```
;; WHEN: Tue Jul 18 18:18:42 UTC 2023
```

```
;; MSG SIZE rcvd: 92
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ echo "Test for your SOA record"
```

```
Test for your SOA record
```

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

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

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

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

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 43901
```

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

```
;; OPT PSEUDOSECTION:
```

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

```
; COOKIE: 43b464fcb0c5bcc00100000064b6d79c5979550471758ec7 (good)
```

```
;; QUESTION SECTION:
```

```
;fs.thegummibear.com.          IN          SOA
```

```
;; AUTHORITY SECTION:
```

```
thegummibear.com.      86400      IN          SOA      ns1.thegummibear.com.  root.ns1.thegummibear.com.  1 604800  
86400 2419200 86400
```

```
;; Query time: 0 msec
```

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

```
;; WHEN: Tue Jul 18 18:19:08 UTC 2023
```

```
;; MSG SIZE rcvd: 121
```

```
joe@ns1:/etc/bind$
```



```
joe@ns1:/etc/bind$ echo "Now test for a non-existent A record"
```

```
Now test for a non-existent A record
```

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

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

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

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

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 44725
```

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

```
;; OPT PSEUDOSECTION:
```

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

```
; COOKIE: c1460e78fe3c15640100000064b6d7c86f8c8ddd76a1aead (good)
```

```
;; QUESTION SECTION:
```

```
;squidward.thegummibear.com.      IN      A
```

```
;; AUTHORITY SECTION:
```

```
thegummibear.com.      86400   IN      SOA     ns1.thegummibear.com. root.ns1.thegummibear.com. 1 604800  
86400 2419200 86400
```

```
;; Query time: 0 msec
```

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

```
;; WHEN: Tue Jul 18 18:19:52 UTC 2023
```

```
;; MSG SIZE rcvd: 128
```

```
joe@ns1:/etc/bind$ echo "Note the status field above: NXDOMAIN"
```

```
Note the status field above: NXDOMAIN
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ echo "So there is no A record for squidward, let's create one"  
So there is no A record for squidward, let's create one  
joe@ns1:/etc/bind$ sudo vi /etc/bind/db.thegummibear.com
```

```
; db file for thegummibear.com
; this is just a comment and is not important
;
;
$TTL      86400
@         IN      SOA      ns1.thegummibear.com. root.ns1.thegummibear.com. (
                        2          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        86400 )   ; Negative Cache TTL
;

; don't forget the dots at the end of all your FQDNs
@         IN      NS       ns1.thegummibear.com.
@         IN      NS       ns2.thegummibear.com.

ns1       IN      A        144.38.199.36
ns2       IN      A        144.38.199.37
fs        IN      A        144.38.199.35
squidward IN      A        144.38.199.35

; I just added squidward, it will resolve to the same IP address of my fs machine
; whenever we change this file we must increment serial number
```

```
joe@ns1:/etc/bind$ echo "Make bind aware of changes (with incremented serial)"
```

```
Make bind aware of changes (with incremented serial)
```

```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

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

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

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

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

```
;; Got answer:
```

```
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 45174
```

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

```
;; OPT PSEUDOSECTION:
```

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

```
; COOKIE: 2f490d57fdb333fa0100000064b6d871c89b2dd42778cd32 (good)
```

```
;; QUESTION SECTION:
```

```
;squidward.thegummibear.com.      IN      A
```

```
;; ANSWER SECTION:
```

```
squidward.thegummibear.com. 86400 IN      A      144.38.199.35
```

```
;; Query time: 0 msec
```

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

```
;; WHEN: Tue Jul 18 18:22:41 UTC 2023
```

```
;; MSG SIZE rcvd: 99
```

```
joe@ns1:/etc/bind$ echo "Now squidward resolves to an ip address"
```

```
Now squidward resolves to an ip address
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ echo "Try adding more A records, they can resolve to an IP address under your control or not"
```

```
Try adding more A records, they can resolve to an IP address under your control or not
```

```
joe@ns1:/etc/bind$ echo "Don't forget to restart bind after"
```

```
Don't forget to restart bind after
```

```
joe@ns1:/etc/bind$ echo "Do a dig test to verify"
```

```
Do a dig test to verify
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ echo "The only two files you will edit are the named.conf.local and your zone file, mine is db.thegummibear.com"
```

The only two files you will edit are the named.conf.local and your zone file, mine is db.thegummibear.com

```
joe@ns1:/etc/bind$ echo "If you see any errors named in other files, rest assured they are in one of the files above!"
```

If you see any errors named in other files, rest assured they are in one of the files above!

```
joe@ns1:/etc/bind$ █
```

```
joe@ns1:/etc/bind$ echo "Lets look at a common misconfiguration"
```

```
Lets look at a common misconfiguration
```

```
joe@ns1:/etc/bind$ sudo vi /etc/bind/named.conf.local
```

```
//I deleted all the lines that were comments to make readability easier
```

```
zone "thegummibear.com" {  
    type master;  
    file "/etc/bind/db.thegummibear.com";  
    allow-transfer { 144.38.199.37; localhost; };  
    notify yes;  
    allow-query { any; };  
}
```

```
// Can you spot the semicolon I deleted?
```

```
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~  
~
```



```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

```
Job for named.service failed because the control process exited with error code.
```

```
See "systemctl status named.service" and "journalctl -xeu named.service" for details.
```

```
joe@ns1:/etc/bind$ echo "You can see that it failed. We know that it is a semicolon error, but can we get more information about the error if we didn't know what it was?"
```

```
You can see that it failed. We know that it is a semicolon error, but can we get more information about the error if we didn't know what it was?
```

```
joe@ns1:/etc/bind$ less /var/log/syslog
```

```
Jul 18 18:26:16 ns1 named[2177]: Inc. (ISC), a non-profit 501(c)(3) public-benefit
Jul 18 18:26:16 ns1 named[2177]: corporation. Support and training for BIND 9 are
Jul 18 18:26:16 ns1 named[2177]: available at https://www.isc.org/support
Jul 18 18:26:16 ns1 named[2177]: -----
Jul 18 18:26:16 ns1 named[2177]: adjusted limit on open files from 524288 to 1048576
Jul 18 18:26:16 ns1 named[2177]: found 1 CPU, using 1 worker thread
Jul 18 18:26:16 ns1 named[2177]: using 1 UDP listener per interface
Jul 18 18:26:16 ns1 named[2177]: DNSSEC algorithms: RSASHA1 NSEC3RSASHA1 RSASHA256 RSASHA512 ECDSAP256SHA2
56 ECDSAP384SHA384 ED25519 ED448
Jul 18 18:26:16 ns1 named[2177]: DS algorithms: SHA-1 SHA-256 SHA-384
Jul 18 18:26:16 ns1 named[2177]: HMAC algorithms: HMAC-MD5 HMAC-SHA1 HMAC-SHA224 HMAC-SHA256 HMAC-SHA384 H
MAC-SHA512
Jul 18 18:26:16 ns1 named[2177]: TKEY mode 2 support (Diffie-Hellman): yes
Jul 18 18:26:16 ns1 named[2177]: TKEY mode 3 support (GSS-API): yes
Jul 18 18:26:16 ns1 named[2177]: config.c: option 'trust-anchor-telemetry' is experimental and subject to
change in the future
Jul 18 18:26:16 ns1 named[2177]: loading configuration from '/etc/bind/named.conf'
Jul 18 18:26:16 ns1 named[2177]: /etc/bind/named.conf:11: missing ';' before 'include'
Jul 18 18:26:16 ns1 named[2177]: loading configuration: failure
Jul 18 18:26:16 ns1 named[2177]: exiting (due to fatal error)
Jul 18 18:26:16 ns1 systemd[1]: named.service: Control process exited, code=exited, status=1/FAILURE
Jul 18 18:26:16 ns1 systemd[1]: named.service: Killing process 2178 (isc-net-0000) with signal SIGKILL.
Jul 18 18:26:16 ns1 systemd[1]: named.service: Failed with result 'exit-code'.
Jul 18 18:26:16 ns1 systemd[1]: Failed to start BIND Domain Name Server.
Jul 18 18:26:16 ns1 systemd[1]: named.service: Scheduled restart job, restart counter is at 5.
Jul 18 18:26:16 ns1 systemd[1]: Stopped BIND Domain Name Server.
Jul 18 18:26:16 ns1 systemd[1]: named.service: Start request repeated too quickly.
Jul 18 18:26:16 ns1 systemd[1]: named.service: Failed with result 'exit-code'.
Jul 18 18:26:16 ns1 systemd[1]: Failed to start BIND Domain Name Server.
```

(END)

```
joe@ns1:/etc/bind$ echo "It told us exactly where it was"
```

```
It told us exactly where it was
```

```
joe@ns1:/etc/bind$ echo "What about checking the status?"
```

```
What about checking the status?
```

```
joe@ns1:/etc/bind$ sudo service bind9 status
```

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

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

```
Active: failed (Result: exit-code) since Tue 2023-07-18 18:26:16 UTC; 1min 16s ago
```

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

```
Process: 2176 ExecStart=/usr/sbin/named $OPTIONS (code=exited, status=1/FAILURE)
```

```
CPU: 19ms
```

```
Jul 18 18:26:16 ns1 systemd[1]: named.service: Failed with result 'exit-code'.
```

```
Jul 18 18:26:16 ns1 systemd[1]: Failed to start BIND Domain Name Server.
```

```
Jul 18 18:26:16 ns1 systemd[1]: named.service: Scheduled restart job, restart counter is at 5.
```

```
Jul 18 18:26:16 ns1 systemd[1]: Stopped BIND Domain Name Server.
```

```
Jul 18 18:26:16 ns1 systemd[1]: named.service: Start request repeated too quickly.
```

```
Jul 18 18:26:16 ns1 systemd[1]: named.service: Failed with result 'exit-code'.
```

```
Jul 18 18:26:16 ns1 systemd[1]: Failed to start BIND Domain Name Server.
```

```
joe@ns1:/etc/bind$ echo "Meh, it just told me it was broken, it didn't tell me where"
```

```
Meh, it just told me it was broken, it didn't tell me where
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

```
Job for named.service failed because the control process exited with error code.
```

```
See "systemctl status named.service" and "journalctl -xeu named.service" for details.
```

```
joe@ns1:/etc/bind$ echo "If you read the output above, it also suggests other commands that you can use to  
troubleshoot. Try them out. Personally, I don't find any valuable information from those commands, so my  
goto is the syslog"
```

```
If you read the output above, it also suggests other commands that you can use to troubleshoot. Try them o  
ut. Personally, I don't find any valuable information from those commands, so my goto is the syslog
```

```
joe@ns1:/etc/bind$
```

```
joe@ns1:/etc/bind$ sudo vi /etc/bind/named.conf.local
```

```
joe@ns1:/etc/bind$ sudo service bind9 restart
```

```
joe@ns1:/etc/bind$ echo "I fixed the semicolon"
```

```
I fixed the semicolon
```

```
joe@ns1:/etc/bind$ echo "This server seems to be working correctly for now"
```

```
This server seems to be working correctly for now
```

```
joe@ns1:/etc/bind$
```