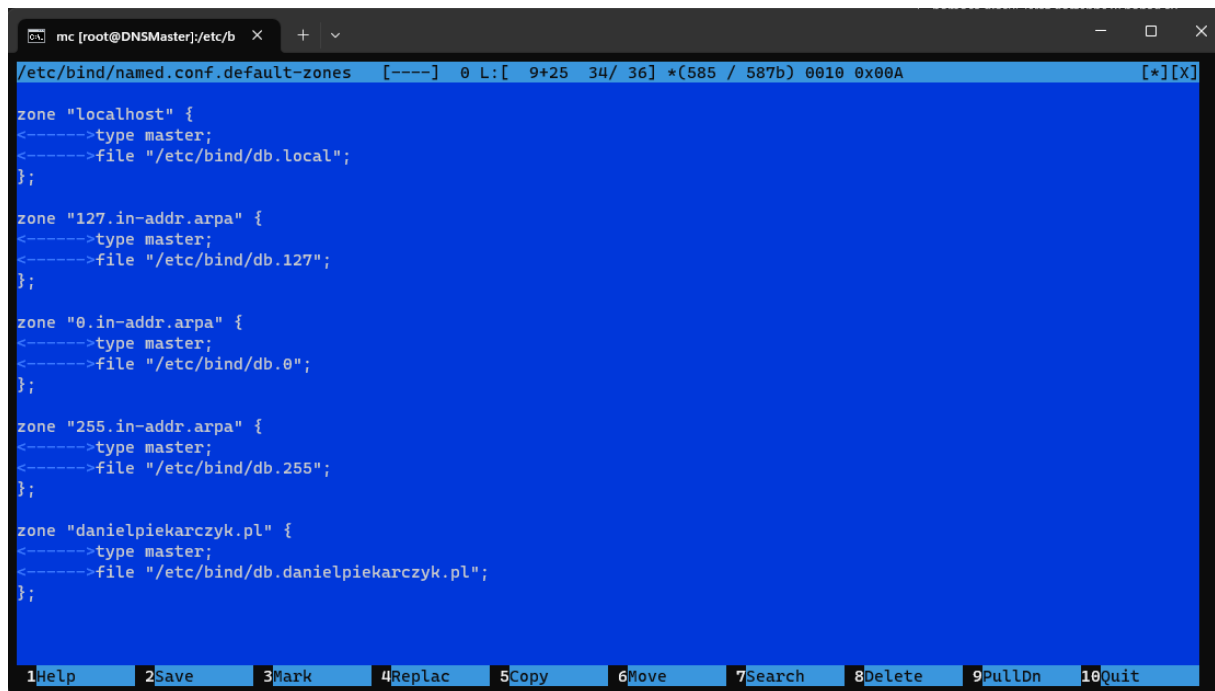


1. Deklaracja nadrzędnej strefy dns danielpiekarczyk.pl



```
mc [root@DNSMaster]:/etc/b x + v
/etc/bind/named.conf.default-zones [----] 0 L:[ 9+25 34/ 36] *(585 / 587b) 0010 0x00A [*][X]

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.localhost";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

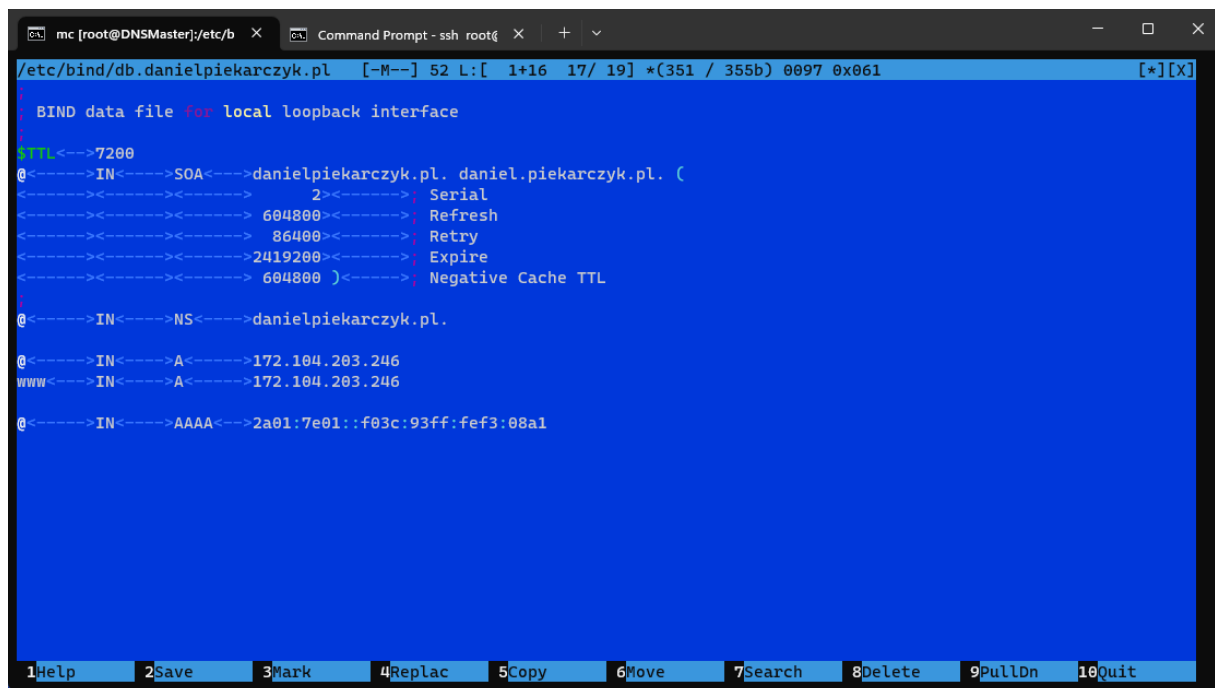
zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

zone "danielpiekarczyk.pl" {
<----->type master;
<----->file "/etc/bind/db.danielpiekarczyk.pl";
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

2. Konfiguracja strefy nadrzędnej dns danielpiekarczyk.pl oraz TTL ustawione na 7200



```
mc [root@DNSMaster]:/etc/b x Command Prompt - ssh root@ x + v
/etc/bind/db.danielpiekarczyk.pl [-M--] 52 L:[ 1+16 17/ 19] *(351 / 355b) 0097 0x061 [*][X]

; BIND data file for local loopback interface
TTL<-->7200
@<----->IN<----->SOA<----->danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<----->2<----->Serial
<----->604800<----->Refresh
<----->86400<----->Retry
<----->2419200<----->Expire
<----->604800 )<----->Negative Cache TTL

@<----->IN<----->NS<----->danielpiekarczyk.pl.

@<----->IN<----->A<----->172.104.203.246
www<----->IN<----->A<----->172.104.203.246

@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:08a1

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

3. Status

```
mc [root@DNSMaster]/etc/b  Command Prompt - ssh root@
root@DNSMaster:~# systemctl restart bind9
root@DNSMaster:~# mc /etc/bind/

root@DNSMaster:~# systemctl restart bind9
root@DNSMaster:~# systemctl status bind9
● named.service - BIND Domain Name Server
   Loaded: loaded (/lib/systemd/system/named.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2023-04-09 10:57:11 UTC; 2min 45s ago
     Docs: man:named(8)
   Main PID: 1286 (named)
    Tasks: 5 (limit: 1129)
   Memory: 13.8M
      CPU: 47ms
   CGroup: /system.slice/named.service
           └─1286 /usr/sbin/named -f -u bind

Apr 09 10:57:11 DNSMaster named[1286]: managed-keys-zone: loaded serial 6
Apr 09 10:57:11 DNSMaster named[1286]: zone 0.in-addr.arpa/IN: loaded serial 1
Apr 09 10:57:11 DNSMaster named[1286]: zone 127.in-addr.arpa/IN: loaded serial 1
Apr 09 10:57:11 DNSMaster named[1286]: zone danielpiekarczyk.pl/IN: loaded serial 2
Apr 09 10:57:11 DNSMaster named[1286]: zone 255.in-addr.arpa/IN: loaded serial 1
Apr 09 10:57:11 DNSMaster named[1286]: managed-keys-zone: Key 20326 for zone . is now trusted (acceptance timer complete)
Apr 09 10:57:11 DNSMaster named[1286]: zone localhost/IN: loaded serial 2
Apr 09 10:57:11 DNSMaster named[1286]: resolver priming query complete
Apr 09 10:57:11 DNSMaster named[1286]: all zones loaded
Apr 09 10:57:11 DNSMaster named[1286]: running
lines 1-21/21 (END)
```

Rozwiązuje nazwy dla danielpiekarczyk.pl oraz www.danielpiekarczyk.pl

```
mc [root@DNSMaster]/etc/bi  Command Prompt - ssh root@
root@Slave:~# nslookup
> server 172.104.203.246
Default server: 172.104.203.246
Address: 172.104.203.246#53
> www.danielpiekarczyk.pl
Server:          172.104.203.246
Address:         172.104.203.246#53

Name:   www.danielpiekarczyk.pl
Address: 172.104.203.246
> danielpiekarczyk.pl
Server:          172.104.203.246
Address:         172.104.203.246#53

Name:   danielpiekarczyk.pl
Address: 172.104.203.246
Name:   danielpiekarczyk.pl
Address: 2a01:7e01::f03c:93ff:fef3:8a1
>
```

4. Konfiguracja strefy podrzędnej DNS danielpiekarczyk.pl

```
/etc/bind/named.conf.default-zones [-M--] 2 L: [ 1+33 34/ 37] *(618 / 621b) 0010 0x00A [*][X]
// prime the server with knowledge of the root servers
zone "." {
<----->type hint;
<----->file "/usr/share/dns/root.hints";
};

// be authoritative for the localhost forward and reverse zones, and for
// broadcast zones as per RFC 1912

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.localhost";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

zone "danielpiekarczyk.pl" {
<----->type slave;
<----->masters {172.104.203.246;};
<----->file "/var/cache/bind/db.danielpiekarczyk.pl";
};
```

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit

Left	File	Command	Options	Right
..	db.danielpiekarczyk.pl			..
managed-keys.bind				.cache
managed-keys.bind.jnl				.config
				.local
				.bash_history
				.bashrc
				.profile
				.selected_editor

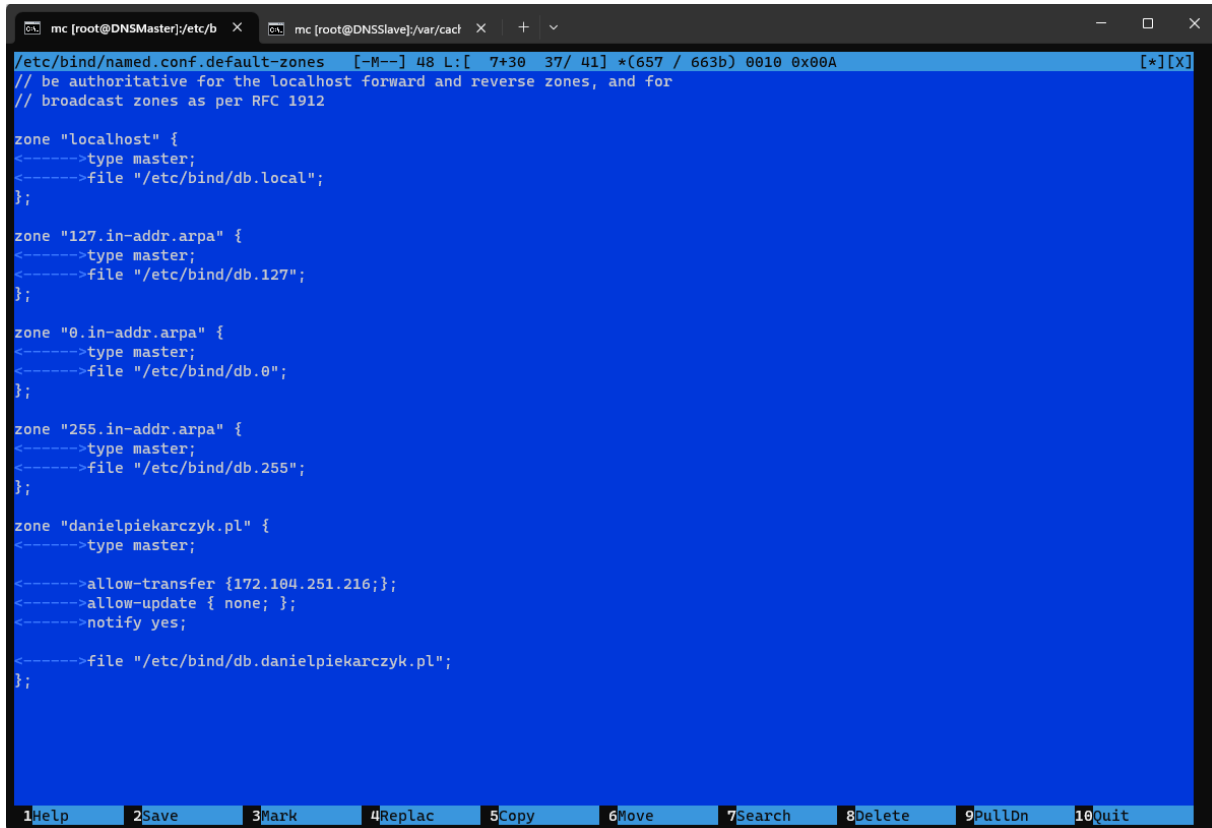
db.danielpiekarczyk.pl 23G/24G (95%) UP--DIR 23G/24G (95%)

Hint: The homepage of GNU Midnight Commander: <http://www.midnight-commander.org/>

root@DNSSlave:/var/cache/bind#

1Help 2Menu 3View 4Edit 5Copy 6RenMov 7Mkdir 8Delete 9PullDn 10Quit

5. Server podstawowy powiadamia o zmianach w pliku strefy, pozwala tylko na transfer strefy dla adresu 172.104.251.216 oraz nikt nie może dokonywać o dynamicznej modyfikacji rekordów w strefie domeny + zapytania o rekordy ustawione na nie



```
/etc/bind/named.conf.default-zones [-M--] 48 L:[ 7+30 37/ 41] *(657 / 663b) 0010 0x00A [*][X]
// be authoritative for the localhost forward and reverse zones, and for
// broadcast zones as per RFC 1912

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.localhost";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

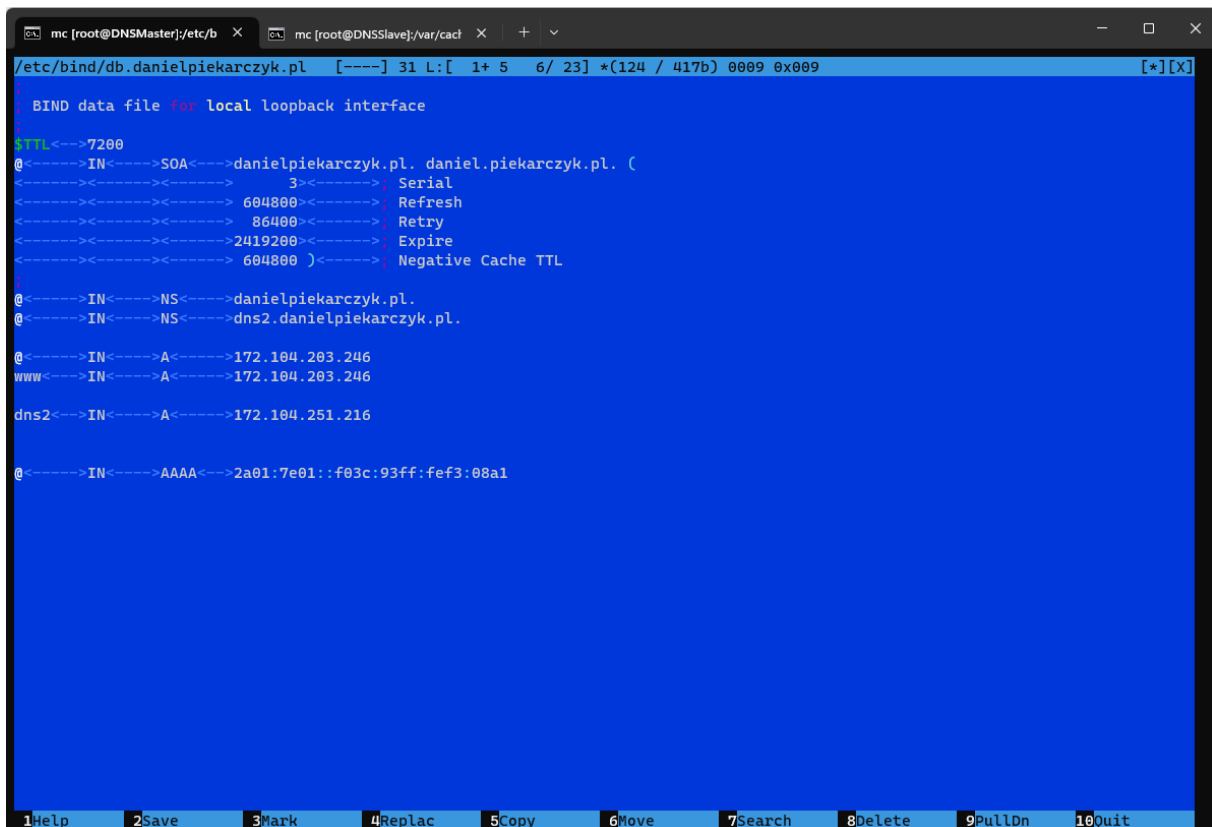
zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

zone "danielpiekarczyk.pl" {
<----->type master;

<----->allow-transfer {172.104.251.216;};
<----->allow-update { none; };
<----->notify yes;

<----->file "/etc/bind/db.danielpiekarczyk.pl";
};
```

Deklaracja strefy podrzędnej w pliku db.danielpiekarczyk.pl



```
/etc/bind/db.danielpiekarczyk.pl [----] 31 L:[ 1+ 5 6/ 23] *(124 / 417b) 0009 0x009 [*][X]
; BIND data file for local loopback interface
$TTL<--->7200
@<----->IN<----->SOA<----->danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 3<-----><-----> Serial
<-----><-----><-----> 604800<-----><-----> Refresh
<-----><-----><-----> 86400<-----><-----> Retry
<-----><-----><-----> 2419200<-----><-----> Expire
<-----><-----><-----> 604800<-----><-----> Negative Cache TTL
)
@<----->IN<----->NS<----->danielpiekarczyk.pl.
@<----->IN<----->NS<----->dns2.danielpiekarczyk.pl.
@<----->IN<----->A<----->172.104.203.246
www<----->IN<----->A<----->172.104.203.246
dns2<----->IN<----->A<----->172.104.251.216
@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:08a1
```

```
root@DNSMaster:~# named-checkzone danielpiekarczyk.pl /etc/bind/db.danielpiekarczyk.pl
zone danielpiekarczyk.pl/IN: loaded serial 3
OK
root@DNSMaster:~#
```

6. Stworzenie poddomeny gliwice.danielpiekarczyk.pl

```
mc [root@DNSMaster]/etc/b  mc [root@DNSSlave]/var/cact  X  +  X
/etc/bind/db.danielpiekarczyk.pl  [----] 54 L: [ 1+23 24/ 25] *(489 / 490b) 0010 0x00A  [*][X]

BIND data file for local loopback interface

$TTL<--->7200
@<----->IN<----->SOA<----->danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 4<-----> Serial
<-----><-----><-----> 604800<-----> Refresh
<-----><-----><-----> 86400<-----> Retry
<-----><-----><-----> 2419200<-----> Expire
<-----><-----><-----> 604800 )<-----> Negative Cache TTL

@<----->IN<----->NS<----->danielpiekarczyk.pl.
@<----->IN<----->NS<----->dns2.danielpiekarczyk.pl.

@<----->IN<----->A<----->172.104.203.246
www<----->IN<----->A<----->172.104.203.246
gliwice>IN<----->A<----->172.104.203.246

dns2<--->IN<----->A<----->172.104.251.216

@<----->IN<----->AAAA<--->2a01:7e01::f03c:93ff:fef3:08a1
dns2<--->IN<----->AAAA<--->2a01:7e01::f03c:93ff:fef3:e3fb

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

7. Sprawdzanie za pomocą serwera podrzędnego działania:

```
mc [root@DNSMaster]/etc/b  X mc [root@DNSSlave]/var/cact X + v
root@DNSMaster:~# mc /etc/bind/

root@DNSMaster:~# systemctl restart bind9
root@DNSMaster:~# mc /etc/bind/

root@DNSMaster:~# nslookup
> exit

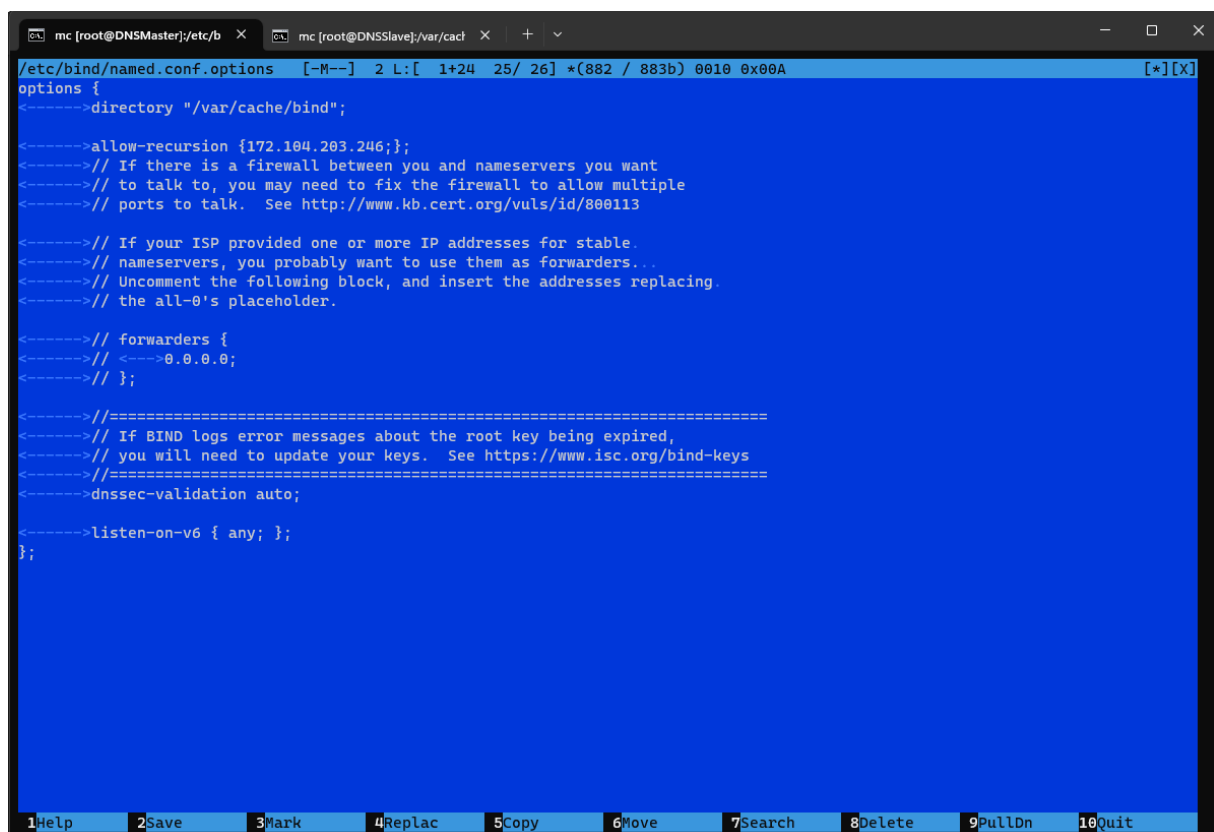
root@DNSMaster:~# systemctl restart bind9
root@DNSMaster:~# nslookup
> server 172.104.251.216
Default server: 172.104.251.216
Address: 172.104.251.216#53
> www.danielpiekarczyk.pl
Server:      172.104.251.216
Address:     172.104.251.216#53

Name:   www.danielpiekarczyk.pl
Address: 172.104.203.246
Name:   www.danielpiekarczyk.pl
Address: 2a01:7e01::f03c:93ff:fef3:8a1
> danielpiekarczyk.pl
Server:      172.104.251.216
Address:     172.104.251.216#53

Name:   danielpiekarczyk.pl
Address: 172.104.203.246
Name:   danielpiekarczyk.pl
Address: 2a01:7e01::f03c:93ff:fef3:8a1
> gliwice.danielpiekarczyk.pl
Server:      172.104.251.216
Address:     172.104.251.216#53

Name:   gliwice.danielpiekarczyk.pl
Address: 172.104.203.246
>
```

7. Zapytania rekurencyjne wyłączone dla wszystkich za wyjątkiem własnego komputera na master i slave



```
/etc/bind/named.conf.options  [-M--]  2 L:  1+24  25/ 26] *(882 / 883b) 0010 0x00A  [*][X]
options {
<----->directory "/var/cache/bind";

<----->allow-recursion {172.104.203.246;};
<----->/// If there is a firewall between you and nameservers you want
<----->/// to talk to, you may need to fix the firewall to allow multiple
<----->/// ports to talk.  See http://www.kb.cert.org/vuls/id/800113

<----->/// If your ISP provided one or more IP addresses for stable
<----->/// nameservers, you probably want to use them as forwarders...
<----->/// Uncomment the following block, and insert the addresses replacing
<----->/// the all-0's placeholder.

<----->/// forwarders {
<----->/// <--->0.0.0.0;
<----->/// };

<----->///=====
<----->/// If BIND logs error messages about the root key being expired,
<----->/// you will need to update your keys.  See https://www.isc.org/bind-keys
<----->///=====
<----->dnssec-validation auto;

<----->listen-on-v6 { any; };
};
```

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit

```
mc [root@DNSMaster]/etc/bin X mc [root@DNSSlave]/etc/bin X + v
/etc/bind/named.conf.options [B---] 64 L:[ 1+20 21/ 26] *(811 / 883b) 0061 0x03D [*][X]
options {
<----->directory "/var/cache/bind";

<----->allow-recursion {172.104.203.246;};
<----->// If there is a firewall between you and nameservers you want
<----->// to talk to, you may need to fix the firewall to allow multiple
<----->// ports to talk. See http://www.kb.cert.org/vuls/id/800113

<----->// If your ISP provided one or more IP addresses for stable.
<----->// nameservers, you probably want to use them as forwarders...
<----->// Uncomment the following block, and insert the addresses replacing
<----->// the all-0's placeholder.

<----->// forwarders {
<----->// <---->0.0.0.0;
<----->// };

<----->//=====
<----->// If BIND logs error messages about the root key being expired,
<----->// you will need to update your keys. See https://www.isc.org/bind-keys
<----->//=====
<----->dnssec-validation auto;

<----->listen-on-v6 { any; };
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Dla innych:

```
root@DNSMaster:~# nslookup
> server 172.104.203.246
Default server: 172.104.203.246
Address: 172.104.203.246#53
> www.google.pl
Server:          172.104.203.246
Address:         172.104.203.246#53

** server can't find www.google.pl: REFUSED
> exit

root@DNSMaster:~# mc /etc/bind/
```

Na naszym serwerze:

```

root@DNSMaster:~# nslookup
> server 172.104.203.246
Default server: 172.104.203.246
Address: 172.104.203.246#53
> google.pl
Server:          172.104.203.246
Address:         172.104.203.246#53

Non-authoritative answer:
Name:   google.pl
Address: 172.217.16.131
Name:   google.pl
Address: 2a00:1450:4001:808::2003
>

```

8. Poprawienie master: db.danielpiekarczyk.pl

```

/etc/bind/db.danielpiekarczyk.pl  [----] 31 L: [ 1+ 5 6/ 31] *(128 / 655b) 0009 0x009 [X]

BIND data file for local loopback interface

$TTL<--->7200
@<----->IN<----->SOA<----->ns1.danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 7<-----> Serial
<-----><-----><-----> 604800<-----> Refresh
<-----><-----><-----> 86400<-----> Retry
<-----><-----><-----> 2419200<-----> Expire
<-----><-----><-----> 604800<-----> Negative Cache TTL
;
@<----->IN<----->NS<----->ns1.danielpiekarczyk.pl.
@<----->IN<----->NS<----->ns2.danielpiekarczyk.pl.

ns1<----->IN<----->A<----->172.104.203.246
ns2<----->IN<----->A<----->172.104.251.216

ns1<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
ns2<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:e3fb

@<----->IN<----->A<----->172.104.203.246
www<----->IN<----->A<----->172.104.203.246
gliwice<----->IN<----->A<----->172.104.203.246

@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
www<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
gliwice<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1

```


9. Wykupienie oraz podłączenie domeny

Domain names / danielpiekarczyk.pl / GLUE

danielpiekarczyk.pl

Actions

General informationDNS zoneDNS serversRedirectionDynHostGLUEDS recordsRecent tasksEmails and mailing lists

Customise your DNS servers here with your domain name, so that they are displayed in the WHOIS database.

Add

You can create your own DNS servers in IPv4.

Host	Target(s)	
ns1.danielpiekarczyk.pl	["172.104.203.246"]	
ns2.danielpiekarczyk.pl	["172.104.251.216"]	

25 of 2 results

Guides

GLUE

Domain names / danielpiekarczyk.pl / DNS servers

danielpiekarczyk.pl

Actions

General informationDNS zoneDNS serversRedirectionDynHostGLUERecent tasksEmails and mailing lists

The DNS modification has been processed. You will need to wait around 48 hours for the other DNSes to propagate.

To ensure that your configuration works, you can use this [DNS verification tool](#).

DNS server	Associated IP	Status	
ns1.danielpiekarczyk.pl	172.104.203.246	Running	
ns2.danielpiekarczyk.pl	172.104.251.216	Running	
dns113.ovh.net	-	Deleting...	
ns113.ovh.net	-	Deleting...	

Order Anycast DNS

Modify DNS servers

Reset the DNS servers

Guides

DNS servers

Domain names / danielpiekarczyk.pl / DNS servers

danielpiekarczyk.pl

Actions

General informationDNS zoneDNS serversRedirectionDynHostGLUERecent tasksEmails and mailing lists

To ensure that your configuration works, you can use this [DNS verification tool](#).

DNS server	Associated IP	Status	
ns1.danielpiekarczyk.pl	172.104.203.246	Enabled	
ns2.danielpiekarczyk.pl	172.104.251.216	Enabled	

Order Anycast DNS

Modify DNS servers

Reset the DNS servers

Guides

DNS servers

10. Loadbalancer na sklep oraz rekord MX na nasz mail

```
mc [root@DNSMaster:/etc/b] x mc [root@DNSSlave:/etc/binc] x + v
/etc/bind/db.danielpiekarczyk.pl [----] 0 L: [ 2+37 39/ 39] *(908 / 908b) <EOF> [*][X]
; BIND data file for local loopback interface
$TTL<-->7200
@<----->IN<----->SOA<----->ns1.danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 11<-----><-----> Serial
<-----><-----><-----> 604800<-----><-----> Refresh
<-----><-----><-----> 86400<-----><-----> Retry
<-----><-----><-----> 2419200<-----><-----> Expire
<-----><-----><-----> 604800 )<-----><-----> Negative Cache TTL
;
@<----->IN<----->NS<----->ns1.danielpiekarczyk.pl.
@<----->IN<----->NS<----->ns2.danielpiekarczyk.pl.

ns1<----->IN<----->A<----->172.104.203.246
ns2<----->IN<----->A<----->172.104.251.216

ns1<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
ns2<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:e3fb

@<----->IN<----->A<----->172.104.203.246
www<----->IN<----->A<----->172.104.203.246
gliwice<----->IN<----->A<----->172.104.203.246

sklep<----->IN<----->A<----->172.104.203.246
sklep<----->IN<----->A<----->172.104.251.216
sklep<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
sklep<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:e3fb
www.sklep<----->CNAME<----->sklep

@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
www<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1
gliwice<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:08a1

@<----->IN<----->MX<----->10<----->mail
mail<----->IN<----->A<----->172.104.251.216
mail<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fe3:e3fb

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Weryfikacja loadbalancera dla poddomeny sklep:

```
Wiersz polecenia x + v
C:\Users\t33lx>www.ns2.danielpiekarczyk.pl
'www.ns2.danielpiekarczyk.pl' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\t33lx>ping sklep.danielpiekarczyk.pl

Pinging sklep.danielpiekarczyk.pl [172.104.203.246] with 32 bytes of data:
Reply from 172.104.203.246: bytes=32 time=40ms TTL=49
Reply from 172.104.203.246: bytes=32 time=41ms TTL=49
Reply from 172.104.203.246: bytes=32 time=41ms TTL=49

Ping statistics for 172.104.203.246:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 40ms, Maximum = 41ms, Average = 40ms
Control-C
^C
C:\Users\t33lx>sklep.danielpiekarczyk.pl
'sklep.danielpiekarczyk.pl' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\t33lx>ping www.sklep.danielpiekarczyk.pl

Pinging sklep.danielpiekarczyk.pl [172.104.251.216] with 32 bytes of data:
Reply from 172.104.251.216: bytes=32 time=32ms TTL=47
Reply from 172.104.251.216: bytes=32 time=31ms TTL=47
Reply from 172.104.251.216: bytes=32 time=30ms TTL=47

Ping statistics for 172.104.251.216:
```

Weryfikacja rekordu MX:

```
root@DNSMaster:~# dig IN MX danielpiekarczyk.pl

; <<>> DiG 9.16.37-Debian <<>> IN MX danielpiekarczyk.pl
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 8142
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;danielpiekarczyk.pl.          IN      MX

;; ANSWER SECTION:
danielpiekarczyk.pl.    7200    IN      MX      10 mail.danielpiekarczyk.pl.

;; Query time: 4 msec
;; SERVER: 139.162.130.16#53(139.162.130.16)
;; WHEN: Sun Apr 09 19:40:01 UTC 2023
;; MSG SIZE rcvd: 69

root@DNSMaster:~#
```

11. Tworzenie delegowanej poddomeny gliwice dla danielpiekarczyk.pl oraz www.gliwice

```
mc [root@DNSMaster]/etc/bin X mc [root@DNSSlave]/etc/bin X + v
/etc/bind/db.gliwice.danielpiekarczyk.pl [----] 54 L:[ 1+16 17/ 17] *(411 / 411b) <EOF> [*][X]

; BIND data file for local loopback interface
;
$TTL<--->7200
@<----->IN<----->SOA<----->gliwice.danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 2<-----> Serial
<-----><-----><-----> 604800<-----> Refresh
<-----><-----><-----> 86400<-----> Retry
<-----><-----><-----> 2419200<-----> Expire
<-----><-----><-----> 604800 )<-----> Negative Cache TTL
;
@<----->IN<----->NS<----->gliwice.danielpiekarczyk.pl.
@<----->IN<----->A<----->172.104.251.216
www<----->IN<----->A<----->172.104.251.216

@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:e3fb
www<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:e3fb

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit

mc [root@DNSMaster]/etc/bin X mc [root@DNSSlave]/etc/bin X + v
/etc/bind/named.conf.default-zones [----] 0 L:[ 5+35 40/ 42] *(724 / 726b) 0010 0x00A [*][X]
};

// be authoritative for the localhost forward and reverse zones, and for
// broadcast zones as per RFC 1912

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.local";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

zone "danielpiekarczyk.pl" {
<----->type slave;
<----->masters {172.104.203.246;};
<----->file "/var/cache/bind/db.danielpiekarczyk.pl";
};

zone "gliwice.danielpiekarczyk.pl" {
<----->type master;
<----->file "/etc/bind/db.gliwice.danielpiekarczyk.pl";
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

```
mc [root@DNSSlave]/etc/binc X + v
/etc/bind/db.danielpiekarczyk.pl [----] 27 L: [ 2+12 14/ 38] *(322 / 871b) 0046 0x02E [*][X]
BIND data file for local loopback interface

TTL<-->7200
@<-->IN<-->SOA<-->ns1.danielpiekarczyk.pl. daniel.piekarczyk.pl. (
<-->11<-->Serial
<-->604800<-->Refresh
<-->86400<-->Retry
<-->2419200<-->Expire
<-->604800<-->Negative Cache TTL
.
@<-->IN<-->NS<-->ns1.danielpiekarczyk.pl.
@<-->IN<-->NS<-->ns2.danielpiekarczyk.pl.
gliwice<-->IN<-->NS<-->ns2.danielpiekarczyk.pl.

ns1<-->IN<-->A<-->172.104.203.246
ns2<-->IN<-->A<-->172.104.251.216

ns1<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:08a1
ns2<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:e3fb

@<-->IN<-->A<-->172.104.203.246
www<-->IN<-->A<-->172.104.203.246

sklep<-->IN<-->A<-->172.104.203.246
sklep<-->IN<-->A<-->172.104.251.216
sklep<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:08a1
sklep<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:e3fb
www.sklep<-->CNAME<-->sklep

@<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:08a1
www<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:08a1

@<-->IN<-->MX<-->10<-->mail
mail<-->IN<-->A<-->172.104.251.216
mail<-->IN<-->AAAA<-->2a01:7e01::f03c:93ff:fef3:e3fb

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Sprawdzenie czy delegowana poddomena działa:

```
--- www.gliwice.danielpiekarczyk.pl ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2001ms
rtt min/avg/max/mdev = 0.399/0.430/0.447/0.022 ms
root@DNSSlave:~# ping4 www.gliwice.danielpiekarczyk.pl
PING (172.104.251.216) 56(84) bytes of data.
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=1 ttl=59 time=0.194 ms
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=2 ttl=59 time=0.305 ms
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=3 ttl=59 time=0.229 ms
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=4 ttl=59 time=0.257 ms
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=5 ttl=59 time=0.246 ms
64 bytes from 172-104-251-216.ip.linodeusercontent.com (172.104.251.216): icmp_seq=6 ttl=59 time=0.276 ms
^C
--- ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5050ms
rtt min/avg/max/mdev = 0.194/0.251/0.305/0.034 ms
root@DNSSlave:~#
```

12. Podstawowa strefa dns piekarczyk.pl na delegowanej poddomenie gliwice.danielpiekarczyk.pl (która też jest serwerem podrzędnym domeny danielpiekarczyk.pl)

```
mc [root@DNSSlave]/etc/bin x  +  -  [X]
/etc/bind/named.conf.default-zones  [----]  0 L:[ 9+36 45/ 46] *(801 / 802b) 0010 0x00A  [*][X]

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.local";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

zone "danielpiekarczyk.pl" {
<----->type slave;
<----->masters {172.104.203.246;};
<----->file "/var/cache/bind/db.danielpiekarczyk.pl";
};

zone "gliwice.danielpiekarczyk.pl" {
<----->type master;
<----->file "/etc/bind/db.gliwice.danielpiekarczyk.pl";
};

zone "piekarczyk.pl" {
<----->type master;
<----->file "/etc/bind/db.piekarczyk.pl";
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

```
mc [root@DNSSlave]/etc/bin x  +  -  [X]
/etc/bind/db.piekarczyk.pl  [----]  54 L:[ 1+16 17/ 17] *(383 / 383b) <EOF>  [*][X]

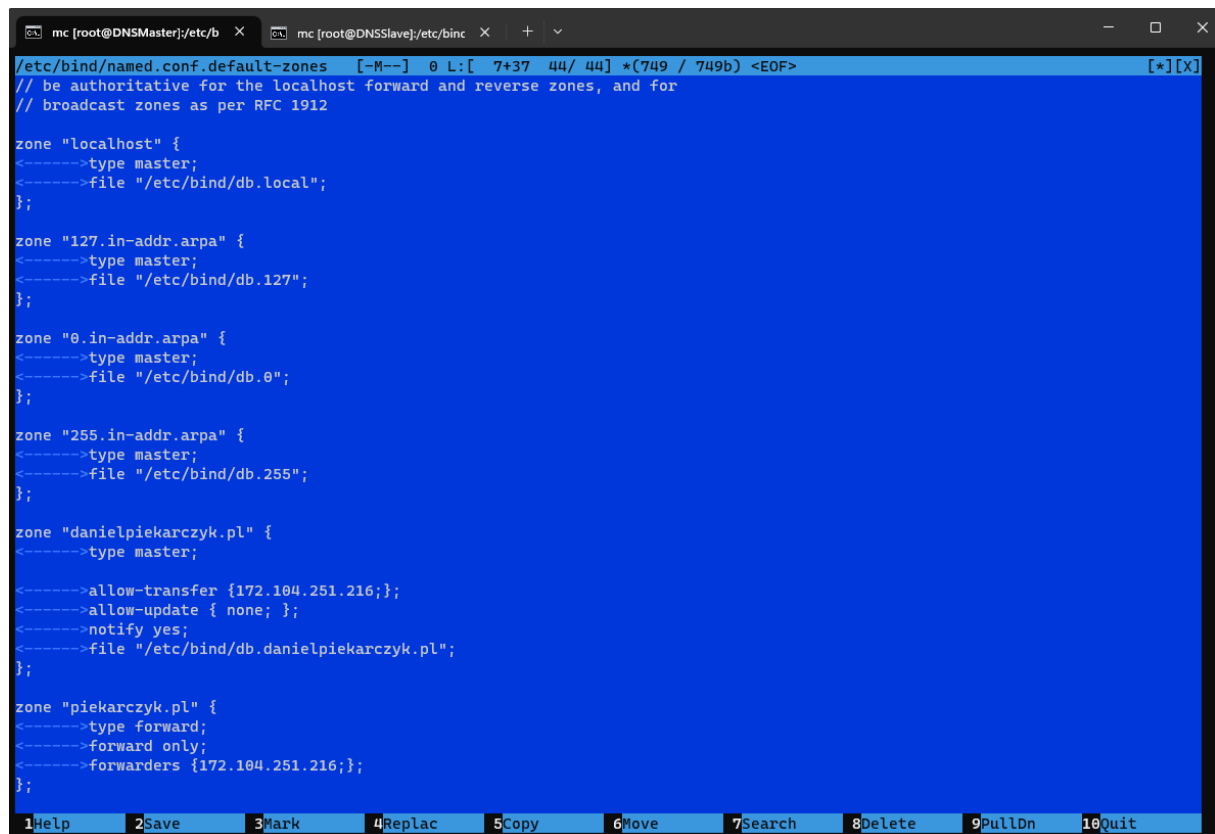
; BIND data file for local loopback interface
$TTL<--->7200
@<----->IN<----->SOA<----->piekarczyk.pl. daniel.piekarczyk.pl. (
<-----><-----><-----> 3<-----> Serial
<-----><-----><-----> 604800<-----> Refresh
<-----><-----><-----> 86400<-----> Retry
<-----><-----><-----> 2419200<-----> Expire
<-----><-----><-----> 604800 )<-----> Negative Cache TTL

@<----->IN<----->NS<----->piekarczyk.pl.
@<----->IN<----->A<----->172.104.251.216
www<----->IN<----->A<----->172.104.251.216

@<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:e3fb
www<----->IN<----->AAAA<----->2a01:7e01::f03c:93ff:fef3:e3fb

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Konfiguracja na serwerze nadrzędnym funkcji warunkowego przesyłania dalej tak, aby jeżeli ktoś wysśle zapytanie DNS dotyczące domeny DNS piekarczyk.pl do serwera utrzymującego podstawową strefę domeny danielpiekarczyk.pl, to aby tenże potrafił w sposób właściwy obsłużyć to zapytanie



```
/etc/bind/named.conf.default-zones [-M--] 0 L:[ 7+37 44/ 44] *(749 / 749b) <E0F> [*][X]
// be authoritative for the localhost forward and reverse zones, and for
// broadcast zones as per RFC 1912

zone "localhost" {
<----->type master;
<----->file "/etc/bind/db.localhost";
};

zone "127.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.127";
};

zone "0.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.0";
};

zone "255.in-addr.arpa" {
<----->type master;
<----->file "/etc/bind/db.255";
};

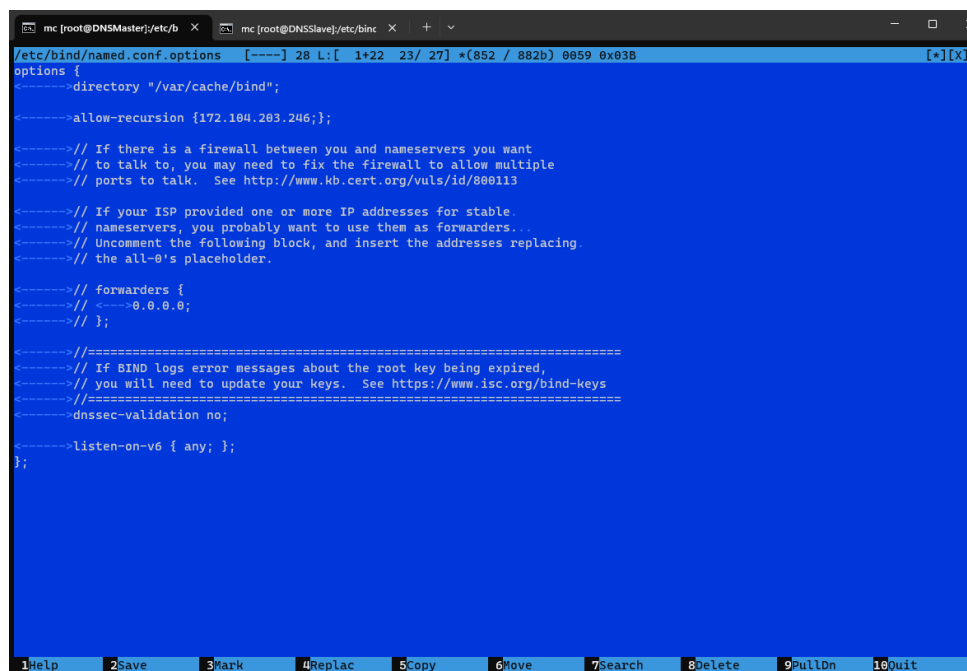
zone "danielpiekarczyk.pl" {
<----->type master;

<----->allow-transfer {172.104.251.216;};
<----->allow-update { none; };
<----->notify yes;
<----->file "/etc/bind/db.danielpiekarczyk.pl";
};

zone "piekarczyk.pl" {
<----->type forward;
<----->forward only;
<----->forwarders {172.104.251.216;};
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

dnssec-validation na „no”



```
/etc/bind/named.conf.options [-----] 28 L:[ 1+22 23/ 27] *(852 / 882b) 0059 0x03B [*][X]
options {
<----->directory "/var/cache/bind";

<----->allow-recursion {172.104.203.246;};

<----->// If there is a firewall between you and nameservers you want
<----->// to talk to, you may need to fix the firewall to allow multiple
<----->// ports to talk. See http://www.kb.cert.org/vuls/id/800113

<----->// If your ISP provided one or more IP addresses for stable
<----->// nameservers, you probably want to use them as forwarders.
<----->// Uncomment the following block, and insert the addresses replacing
<----->// the all-0's placeholder.

<----->// forwarders {
<----->// <----->0.0.0.0;
<----->// };

<----->// If BIND logs error messages about the root key being expired,
<----->// you will need to update your keys. See https://www.isc.org/bind-keys
<----->// =====
<----->dnssec-validation no;

<----->listen-on-v6 { any; };
};

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit
```

Test przekazywania dalej: Działa

```
root@DNSMaster:~# nslookup
> server 172.104.203.246
Default server: 172.104.203.246
Address: 172.104.203.246#53
> piekarczyk.pl
Server:      172.104.203.246
Address:     172.104.203.246#53

Non-authoritative answer:
Name:   piekarczyk.pl
Address: 172.104.251.216
Name:   piekarczyk.pl
Address: 2a01:7e01::f03c:93ff:fef3:e3fb
>
```

13. Osobna konfiguracja dla naszego komputera oraz dla innych adresów IP.

```
Wiersz polecenia - ssh root@mc [root@DNSSlave] /etc/bind
/etc/bind/named.conf.default-zones [B---] 18 L: [ 1+ 3 4/ 58] *(117 /1056b) 0010 0x00A
// prime the server with knowledge of the root servers
view "internal" {
    match-clients {any};
    recursion yes;

    zone "." {
        <----->type hint;
        <----->file "/usr/share/dns/root.hints";
    };

    // be authoritative for the localhost forward and reverse zones, and for
    // broadcast zones as per RFC 1912
    zone "localhost" {
        <----->type master;
        <----->file "/etc/bind/db.localhost";
    };

    zone "127.in-addr.arpa" {
        <----->type master;
        <----->file "/etc/bind/db.127";
    };

    zone "0.in-addr.arpa" {
        <----->type master;
        <----->file "/etc/bind/db.0";
    };

    zone "255.in-addr.arpa" {
        <----->type master;
        <----->file "/etc/bind/db.255";
    };

    zone "danielpiekarczyk.pl" {
        <----->type slave;
        <----->masters {172.104.203.246};
        <----->file "/var/cache/bind/db.danielpiekarczyk.pl";
    };

    zone "gliwice.danielpiekarczyk.pl" {
        <----->type master;
        <----->file "/etc/bind/db.gliwice.danielpiekarczyk.pl";
    };

    zone "piekarczyk.pl" {
        <----->type master;
        <----->file "/etc/bind/db.piekarczyk.pl";
    };
};
1Help      2Save      3Mark      4Replac    5copy      6move      7search    8Delete    9pullon   10quit
```

```
view "external" {
    match-clients {31.6.221.158};
    recursion no;
    zone "gliwice.danielpiekarczyk.pl" {
        <----->type master;
        <----->file "/etc/bind/external.gliwice.danielpiekarczyk.pl";
    };
};
```



```
C:\Users\t33lx>ping www.gliwice.danielpiekarczyk.pl

Pinging www.gliwice.danielpiekarczyk.pl [1.1.1.1] with 32 bytes of data:
Reply from 1.1.1.1: bytes=32 time=14ms TTL=55
Reply from 1.1.1.1: bytes=32 time=12ms TTL=55
Reply from 1.1.1.1: bytes=32 time=12ms TTL=55

Ping statistics for 1.1.1.1:
    Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 12ms, Maximum = 14ms, Average = 12ms
Control-C
^C
C:\Users\t33lx>
```