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Practical Exercise
Communication System II (Rechnernetze II)
Domain Name Server (DNS)

Exercise 1:

Make a DNS configuration, first you need to configure your IP to be 192.168.1.x:

After you become a super user, then change your working directory into bind directory

cd /etc/bind/

Then make a new database file where we will declare the computer as DNS server. You can make your own name for your new file, and then we can just copy the files from default bind's file, namely `db.local`

It will be like: `db.xxx`

The next step is editing the files with your editor. (You can choose any editors)

```
;
; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA ns.yourdomain. root.yourdomain. (
                              1 ; Serial
                         604800 ; Refresh
                          86400 ; Retry
                        2419200 ; Expire
                         604800 ) ; Negative Cache TTL
;
@       IN    NS        ns.yourdomain.
        IN    A         your ip
ns      IN    A         your ip
www     IN    CNAME     ns
ftp     IN    CNAME     ns
smtp    IN    CNAME     ns
```

you can use your domain like : google.net or Iamrockstar.com

Exercise 2:

Make a resolver file " *cp db.yourdomain db.IP* "

Edit your resolver file. Delete all lines after this line

```
@    IN    NS    ns.yourdomain.
```

And add this line and save :

```
1    IN    PTR    ns.yourdomain.
```

Note: 1 is your ID from your IP

Exercise 3:

Try to edit the primary bind file. "`named.conf`".

Edit `named.conf` file, after this comment:

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

To be:

```
Zone "yourdomain"
     Type master;
     File "/etc/bind/db.xxx";
};
Zone 1.168.192.in-addr.arpa"{
     Type master;
     File "/etc/bind/db.IP";
```

Please replace XXX with your file name which you made in the first step.

Exercise 4:

Editing DNS client

1. Go to directory *etc*
2. Edit `resolve.conf`
3. Add this character to `resolv.conf` file :

```
Domain yourdomain
Search   yourdomain
Nameserver "your IP"
Nameserver "your Neighbour IP"
```

After your configuration save the file and restart bind with this command:

```
 _/etc/init.d/bind9 restart
```

Then the last step is try to ping your domain

Then use nslookup to show your server IP.

```
Nslookup www.yourdomain or Nslookup yourdomain
```

And you can also use nslookup for your neighbour domain

```
Nslookup www.your_neighbor_domain
```

```
Is it working? Try to check your file once again, and make sure about
space and dot.
```