Lab exercise 3 - Configuring individual domains on primary & secondary servers

Objectives:   Participants should be able to configure primary & secondary name
server for a given domain name and do a zone transfer between them. This should
include creating, modifying, deleting RRs and incrementing Primary name server
serial number. Each participant name servers should be visible from other name
servers since we will use the lab root & gtld server, thus root hint will be
used.

Note:
Each participant's PC has 1 ip address configured on the interface. Configure
your PC to be master of your own domain and also a slave for PCs in your right
side. PC in your left will act as slave for your own domain.

```
PC number    ip address        domain
1            192.168.1.0/24    pc1.net
2            192.168.2.0/24    pc2.net
:            :                 :          :
:            :                 :          :
10           192.168.10.0/24   pc10.net
```

1. Register your domain name and its name server's FQDN (master & slave)
together with their ip addresses to domain name registry. In our lab you should
approach the instructor for registration. Instructor will also act as gtld for
this exercise thus creating the delagation of .net subdomains to every pc in the
lab.

2. Create a new working directory for your master server under /var/named

            % mkdir /var/named/master

3. Create a zone file for your domain under /var/named/master and add necessary
resource records like NS record, A record, txt record, MX record that will
determine which host is receiving mail for your domain

4. Create the configuration file. (named.conf) Please note that the primary
master for pcx.net zone is "type master" and "type slave" for secondary master
for pcx.net zone. Specify your name server working directory.

```
        options {
        directory { "/var/named/master"; };
              };
```

5. In /var/named/master run bind using named -g -c named.conf and see if it's
running properly. Error messages will give you hints where the error is.

6. Once Bind is running, you can do some basic testing using dns tools like
"dig"

Example:
        Testing your name server to  display the SOA  records for your domain.

        %     dig @192.168.x.1  pcx.net   SOA

        Testing your name server to display NS records

        %     dig @192.168.x.1 pcx.net   NS

        Testing your name server to display other resource records like A, MX,
        TXT.

        %     dig @192.168.x.1 ns1.pcx.net   A

        %     dig @192.168.x.1 pcx.net   MX