



IT3010

Network Design & Management

3rd Year, 1st Semester

<Assignment 01>

<Assignment Name/Lab Report Name>

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Declaration

I certify that this report does not incorporate without acknowledgement, any material previously submitted for a degree or diploma in any university, and to the best of my knowledge and belief it does not contain any material previously published or written by another person, except where due reference is made in text.

Registration Number : **IT17055154**

Name : **Gallage S.J.**

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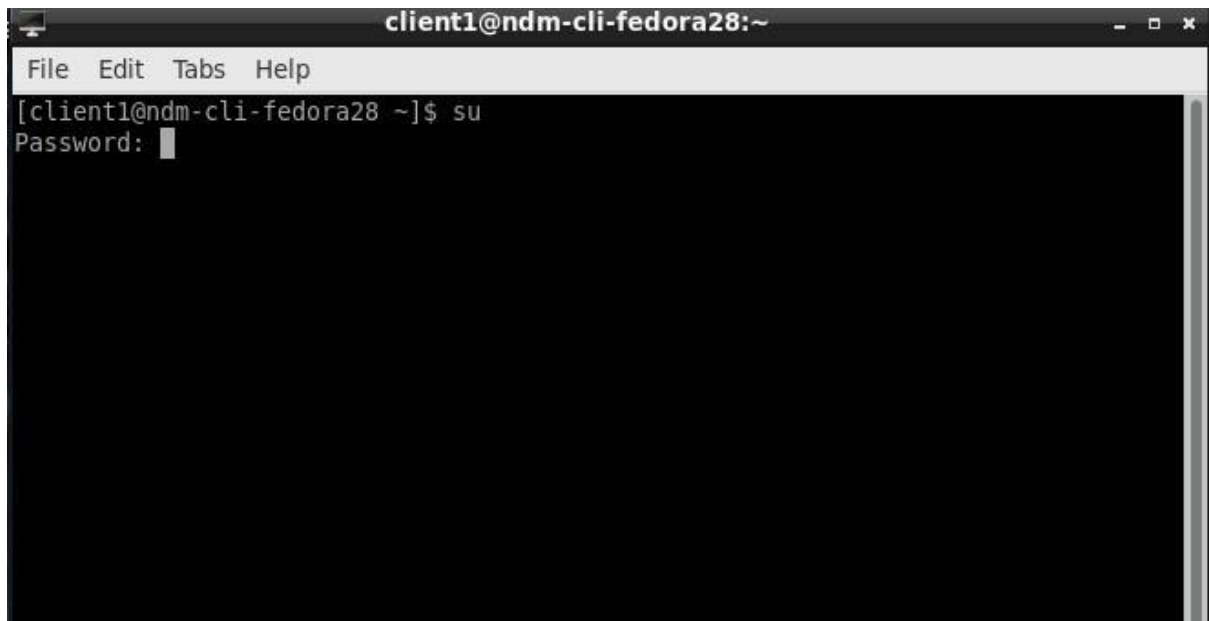
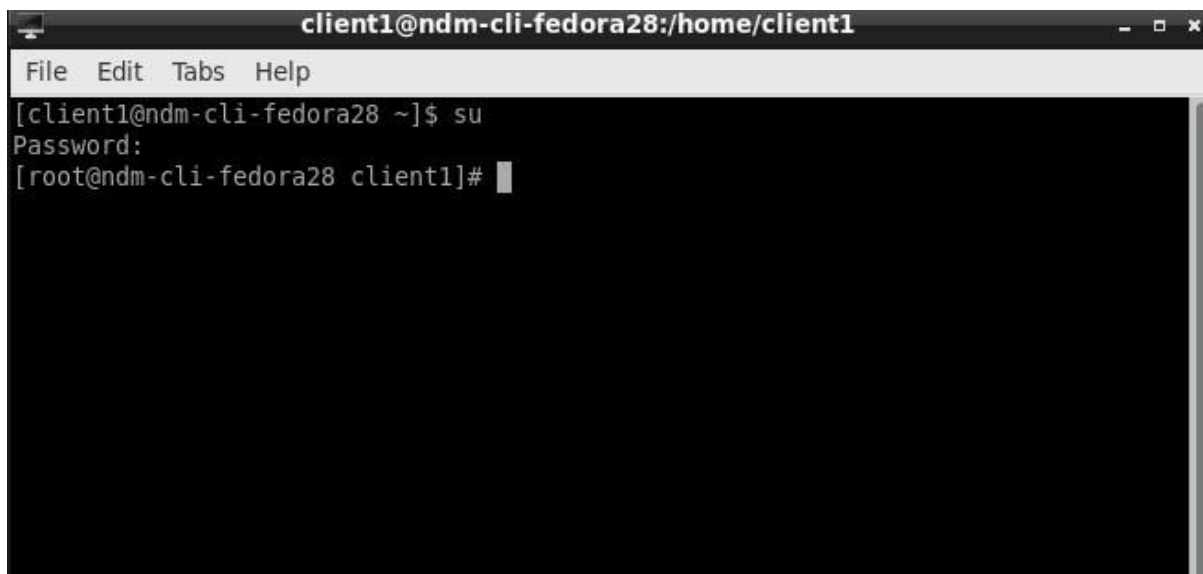


Figure 1.1: Login to configure mode

Login to configure mode to configuring the network setting

A terminal window titled 'client1@ndm-cli-fedora28:/home/client1' with a menu bar (File, Edit, Tabs, Help). The prompt is '[client1@ndm-cli-fedora28 ~]\$'. The user enters 'su', and the prompt changes to '[root@ndm-cli-fedora28 client1]#'.

```
client1@ndm-cli-fedora28:/home/client1
File Edit Tabs Help
[client1@ndm-cli-fedora28 ~]$ su
Password:
[root@ndm-cli-fedora28 client1]#
```

Figure 2.1: configuration mode on

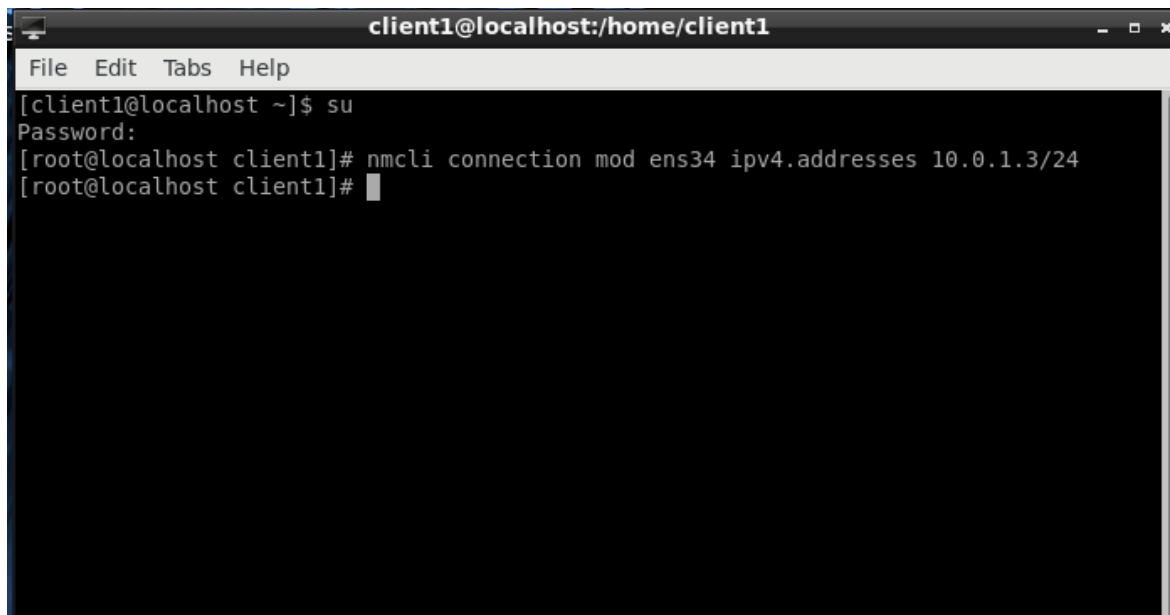
A terminal window titled 'client1@ndm-cli-fedora28:/home/client1' with a menu bar (File, Edit, Tabs, Help). The prompt is '[client1@ndm-cli-fedora28 ~]\$'. The user enters 'su', and the prompt changes to '[root@ndm-cli-fedora28 client1]#'. The user enters 'clear', and the prompt changes to '[root@ndm-cli-fedora28 client1]#'. The user enters 'nmcli device', and the output is a table showing network device status.

```
client1@ndm-cli-fedora28:/home/client1
File Edit Tabs Help
[client1@ndm-cli-fedora28 ~]$ su
Password:
[root@ndm-cli-fedora28 client1]# clear
[root@ndm-cli-fedora28 client1]# nmcli device
```

DEVICE	TYPE	STATE	CONNECTION
ens34	ethernet	connected	ens34
ens33	ethernet	connecting (getting IP configuration)	ens33
lo	loopback	unmanaged	--

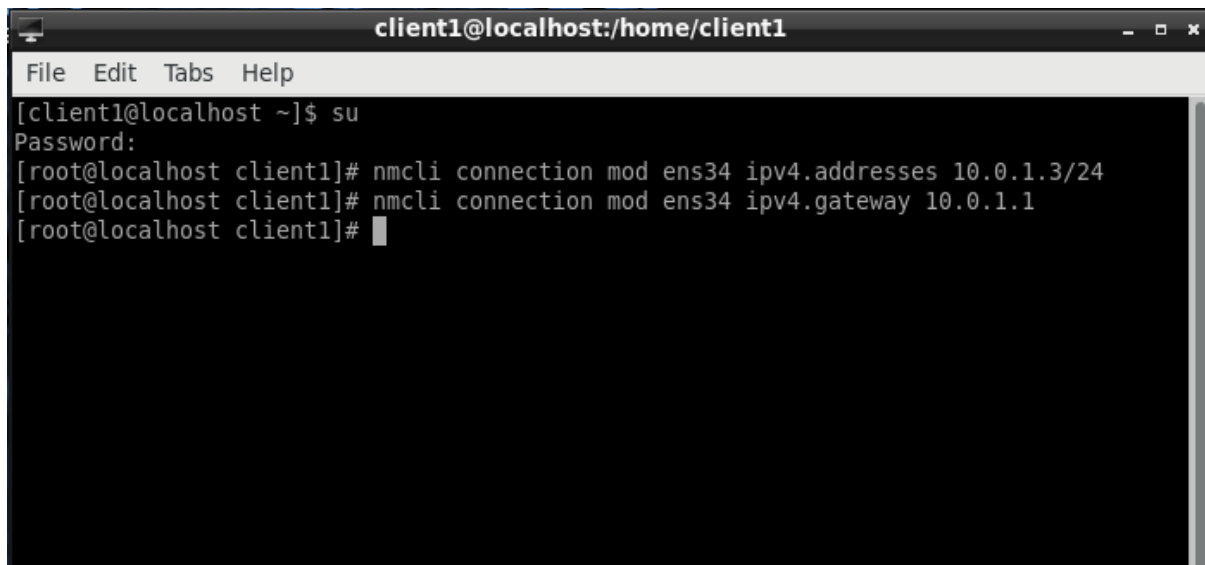
Figure 3.1: Check the connection

Check the connection using [nmcli device] command. It was showing us to assigned ip address and gateways.



```
client1@localhost:/home/client1
File Edit Tabs Help
[client1@localhost ~]$ su
Password:
[root@localhost client1]# nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24
[root@localhost client1]#
```

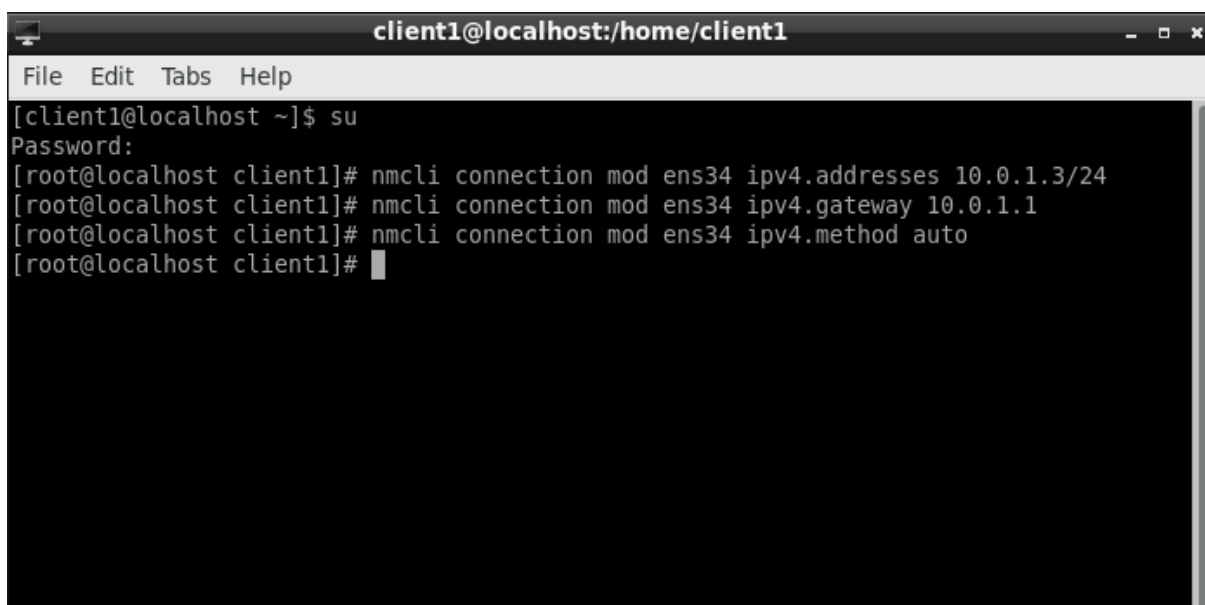
Figure 4.1:Assign the ip address

A terminal window titled 'client1@localhost:/home/client1' with a menu bar (File, Edit, Tabs, Help). The terminal shows a user switching to root and running two 'nmcli' commands to modify the 'ens34' connection. The first command sets the IPv4 address to 10.0.1.3/24, and the second sets the IPv4 gateway to 10.0.1.1.

```
client1@localhost:/home/client1
File Edit Tabs Help
[client1@localhost ~]$ su
Password:
[root@localhost client1]# nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24
[root@localhost client1]# nmcli connection mod ens34 ipv4.gateway 10.0.1.1
[root@localhost client1]#
```

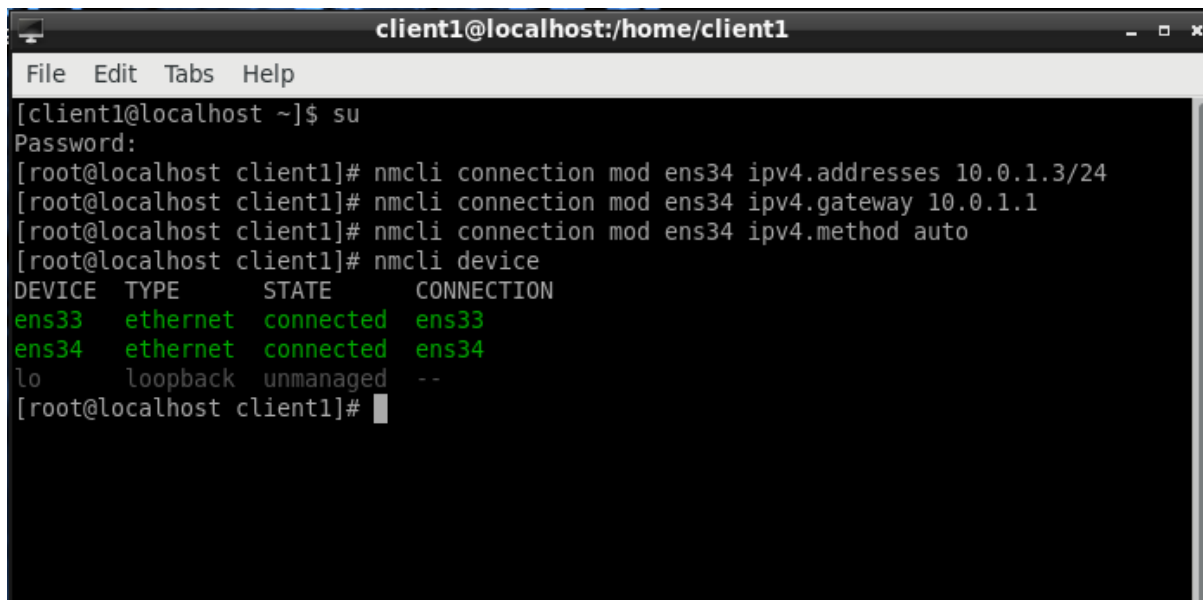
Figure 5.1:Assign the gateway

Controlling the network by assign the client ip address and gateway.

A terminal window titled 'client1@localhost:/home/client1' with a menu bar (File, Edit, Tabs, Help). The terminal shows a user switching to root and running three 'nmcli' commands to modify the 'ens34' connection. The first two commands are the same as in Figure 5.1, and the third sets the IPv4 method to 'auto'.

```
client1@localhost:/home/client1
File Edit Tabs Help
[client1@localhost ~]$ su
Password:
[root@localhost client1]# nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24
[root@localhost client1]# nmcli connection mod ens34 ipv4.gateway 10.0.1.1
[root@localhost client1]# nmcli connection mod ens34 ipv4.method auto
[root@localhost client1]#
```

Figure 6.1:Assign the client method-auto

A terminal window titled 'client1@localhost:/home/client1' with a menu bar (File, Edit, Tabs, Help). The terminal shows a user switching to root via 'su', then using 'nmcli' to modify the 'ens34' connection with IPv4 settings. Finally, 'nmcli device' is used to check the status of network devices.

```
client1@localhost:/home/client1
File Edit Tabs Help
[client1@localhost ~]$ su
Password:
[root@localhost client1]# nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24
[root@localhost client1]# nmcli connection mod ens34 ipv4.gateway 10.0.1.1
[root@localhost client1]# nmcli connection mod ens34 ipv4.method auto
[root@localhost client1]# nmcli device
DEVICE  TYPE      STATE      CONNECTION
ens33   ethernet  connected  ens33
ens34   ethernet  connected  ens34
lo      loopback  unmanaged  --
[root@localhost client1]#
```

Figure 7.1: Again check the connection

Again, check the connection whether it was connected or not.

