



# **IT3010**

## **Network Design & Management**

### **3<sup>rd</sup> Year, 1<sup>st</sup> Semester**

**<Assignment 01>**

**<Network Connection on Fedora 28Client>**

Submitted to  
Sri Lanka Institute of Information Technology

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## **Declaration**

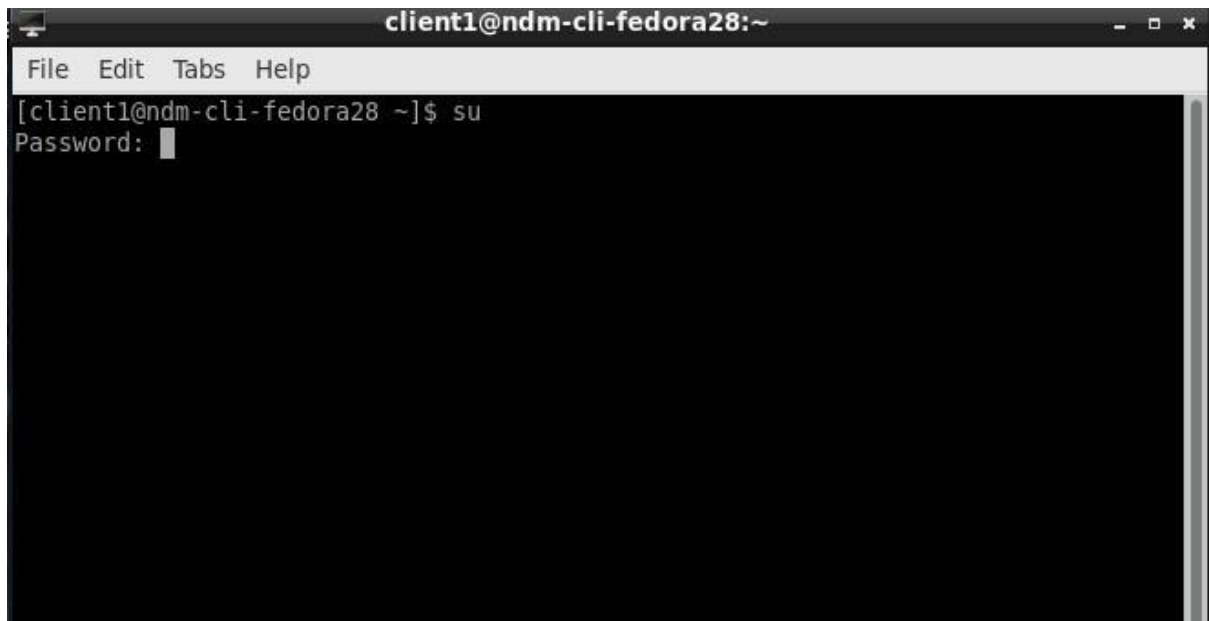
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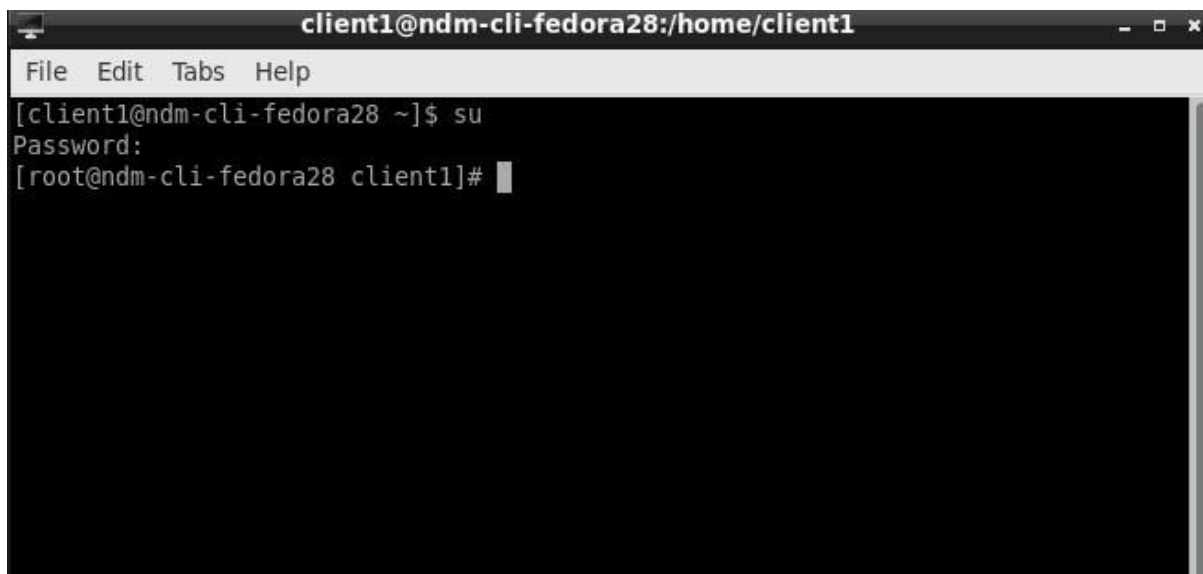
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*Figure 1.1: Login to configure mode*

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', followed by a 'Password:' prompt. After an invisible password entry, 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

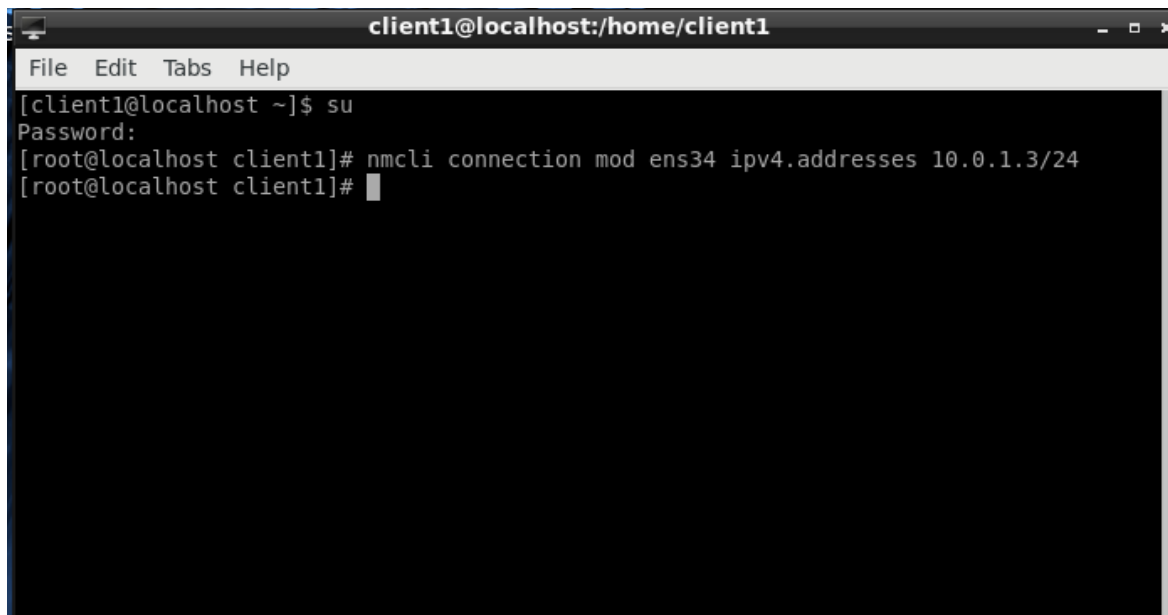
A terminal window titled 'client1@ndm-cli-fedora28:/home/client1' with a menu bar (File, Edit, Tabs, Help). The prompt is '[client1@ndm-cli-fedora28 ~]\$'. The user enters 'su', followed by a 'Password:' prompt. After an invisible password entry, the prompt changes to '[root@ndm-cli-fedora28 client1]#'. The user enters 'clear', then 'nmcli device'. The output shows a table of network devices.

```
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	--

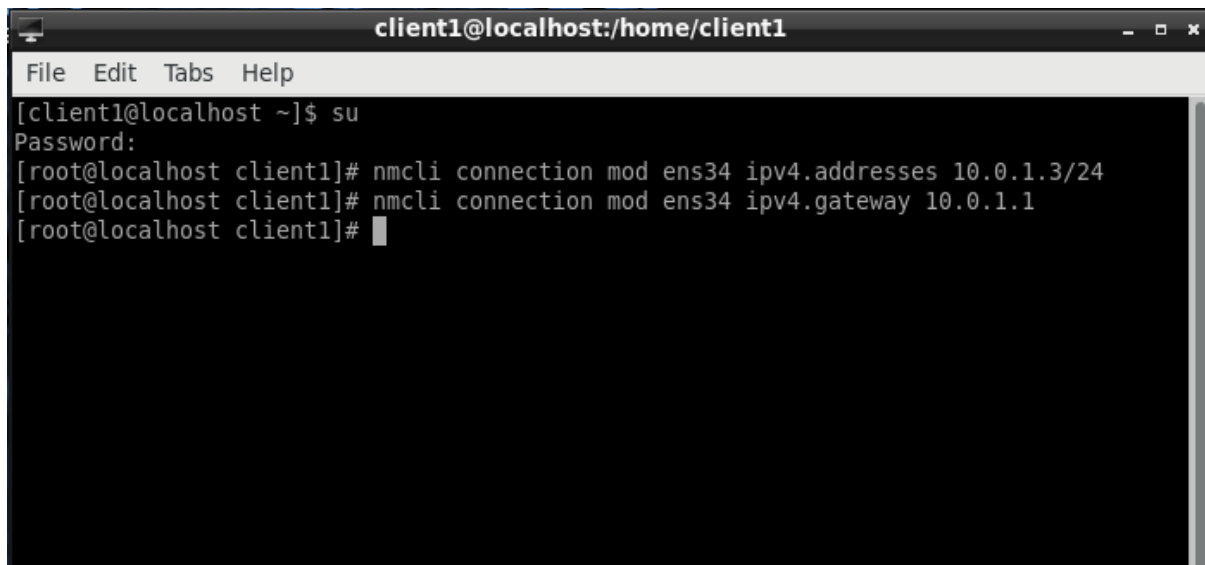
Figure 3.1: Check the connection

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]#
```

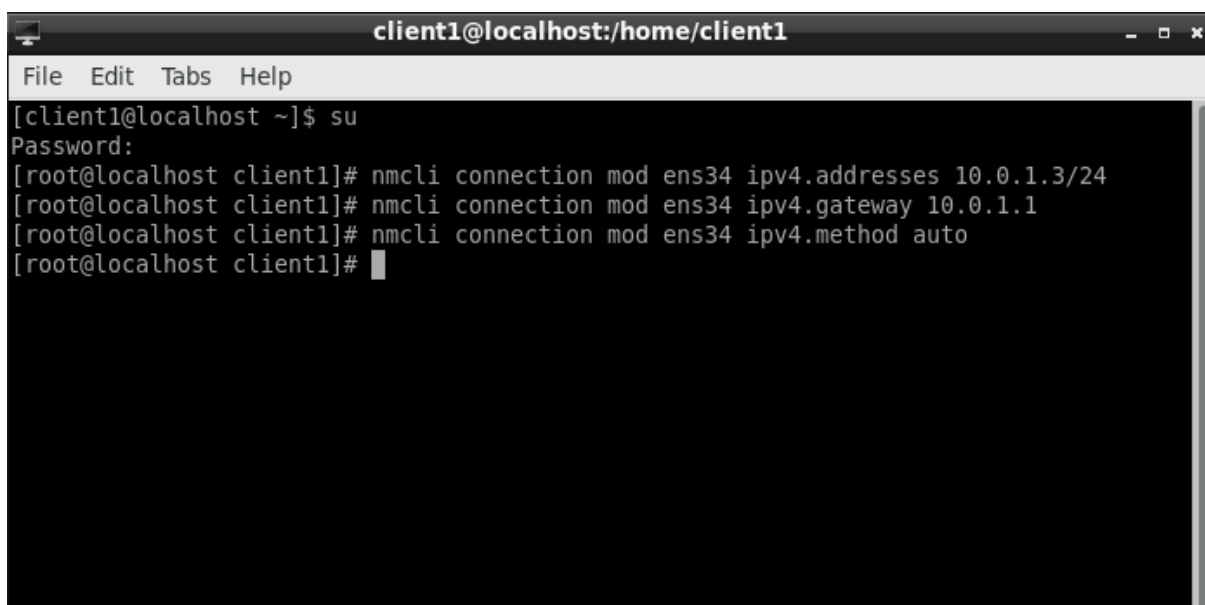
*Figure 4.1:Assign the ip address*

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 using nmcli to modify the 'ens34' connection. The commands and their outputs are: [client1@localhost ~]\$ su, Password: [root@localhost client1]#, nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24, nmcli connection mod ens34 ipv4.gateway 10.0.1.1, and [root@localhost client1]#.

```
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]#
```

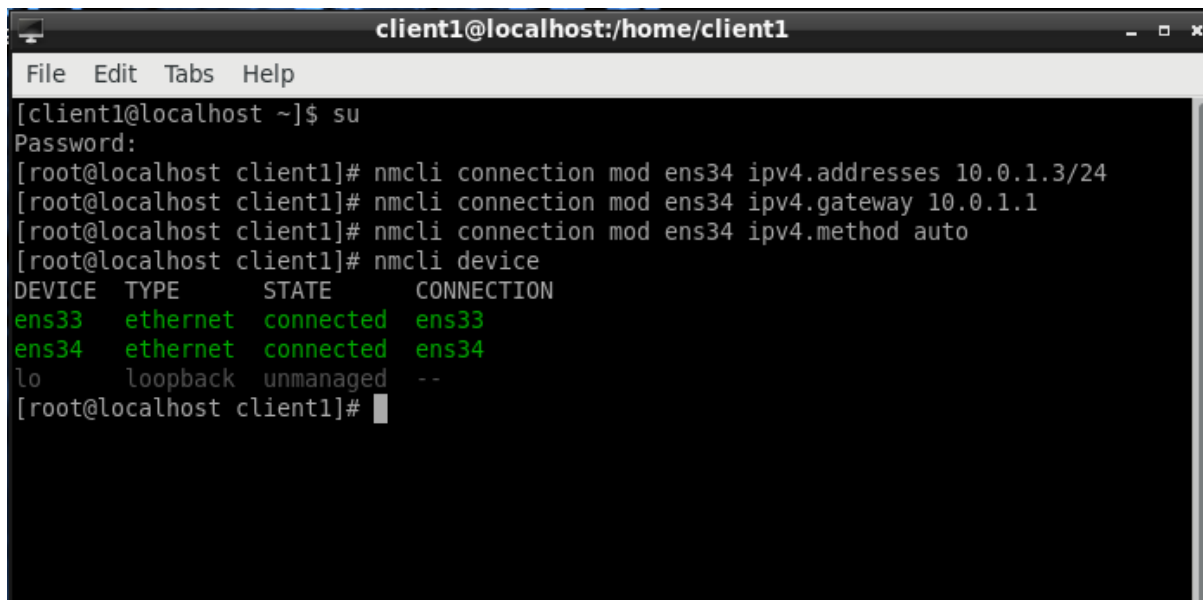
*Figure 5.1:Assign the gateway*

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 using nmcli to modify the 'ens34' connection. The commands and their outputs are: [client1@localhost ~]\$ su, Password: [root@localhost client1]#, nmcli connection mod ens34 ipv4.addresses 10.0.1.3/24, nmcli connection mod ens34 ipv4.gateway 10.0.1.1, nmcli connection mod ens34 ipv4.method auto, and [root@localhost client1]#.

```
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.



