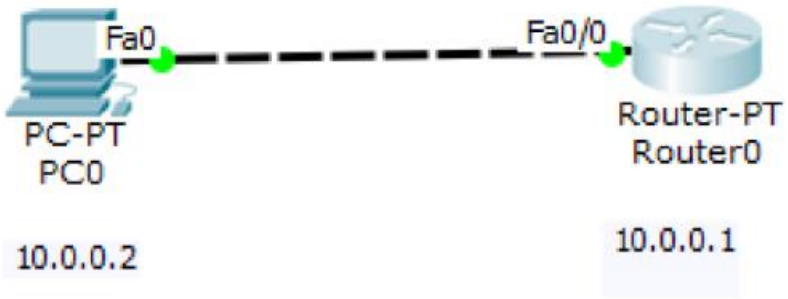
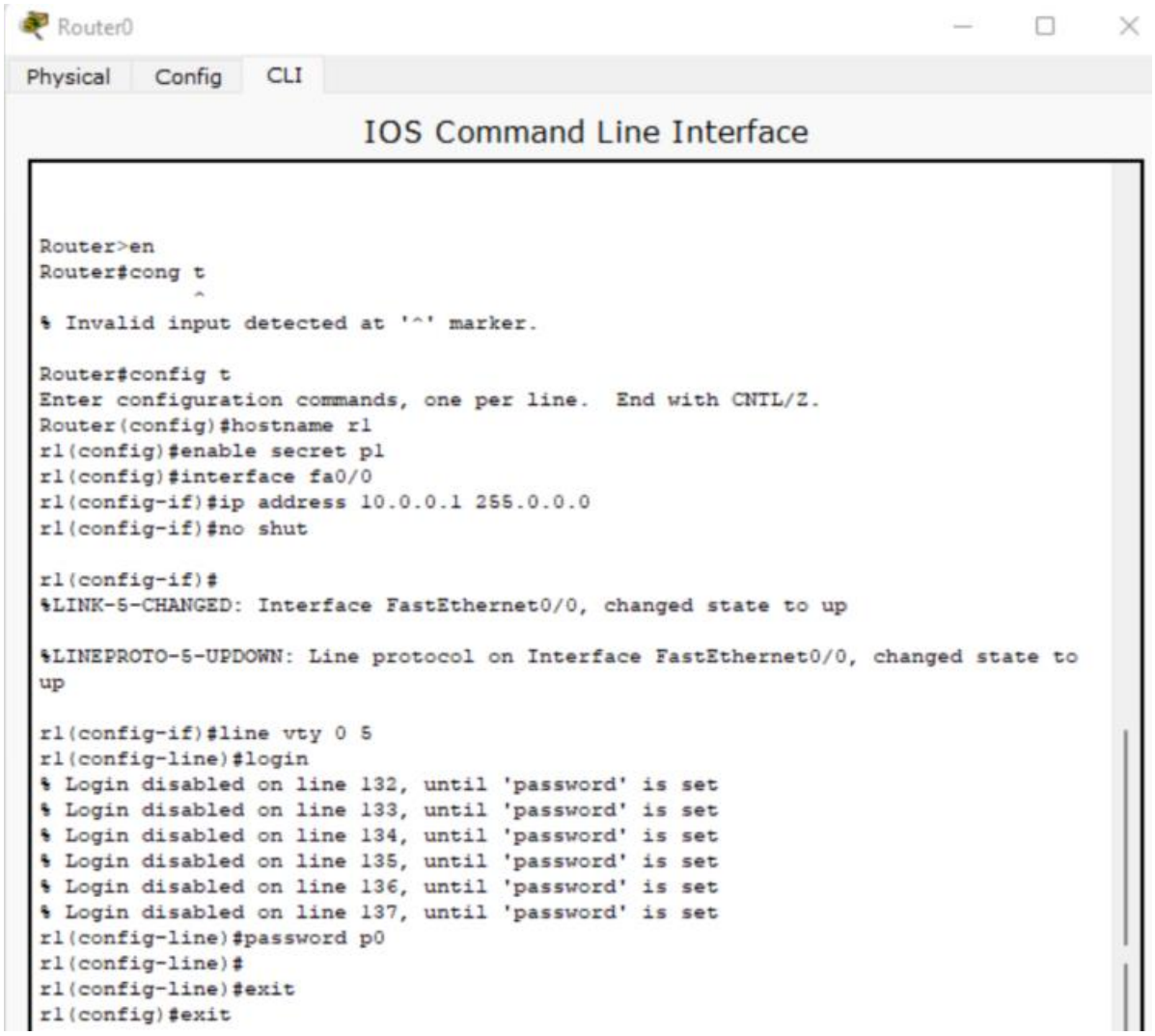
Experiment - 12

Aim: To understand the operation of TELNET by accessing the router in server room from a PC in IT office.




Router0
Physical
Config
CLI
IOS Command Line Interface
Router>en
Router#cong t
^
% Invalid input detected at '^' marker.
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname r1
r1(config)#enable secret p1
r1(config)#interface fa0/0
r1(config-if)#ip address 10.0.0.1 255.0.0.0
r1(config-if)#no shut
r1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
r1(config-if)#line vty 0 5
r1(config-line)#login
% Login disabled on line 132, until 'password' is set
% Login disabled on line 133, until 'password' is set
% Login disabled on line 134, until 'password' is set
% Login disabled on line 135, until 'password' is set
% Login disabled on line 136, until 'password' is set
% Login disabled on line 137, until 'password' is set
r1(config-line)#password p0
r1(config-line)#
r1(config-line)#exit
r1(config)#exit

Command Prompt

```
Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 1ms

PC>telnet 10.0.0.1
Trying 10.0.0.1 ...Open


User Access Verification

Password:
Password:
r1>en
Password:
r1#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter
area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

C    10.0.0.0/8 is directly connected, FastEthernet0/0
```

Command Prompt

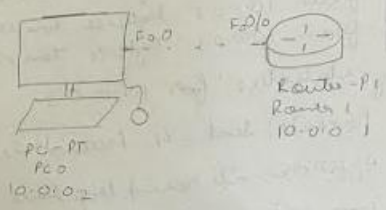
```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.1

Pinging 10.0.0.1 with 32 bytes of data:

Reply from 10.0.0.1: bytes=32 time=1ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=0ms TTL=255
Reply from 10.0.0.1: bytes=32 time=3ms TTL=255

Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 1ms
```

Lab-12

10/9/23

Aim :- To understand the operation of TELNET by accessing the router in server room from a PC in IT office.

Topology :-



Procedure :-

→ create a topology as shown above
→ config the IP address & gateway for PC0
→ config the router by ~~enter~~ executing the following commands

Step 1 : enable
step 2 : config t
step 3 : hostname R1
step 4 : enable secret p1
step 5 : interface fastEthernet 0/0
step 6 : ip address fastEthernet 0/0
step 7 : No shut
step 8 : line vty 0 5
step 9 : login
step 10 : password p0
step 11 : Exit ; Ctrl
Step 12 : Ctrl

→ Ping message to router
Password for User Access verification is P0
password for enable is P1
Accessing router CLI from PC
show ip route

PING OUTPUT -

Packet Tracer PC command line 1.0
PC > Ping 10.0.0.1
Pinging 10.0.0.1 with 32 bytes of data

Reply from 10.0.0.1 : bytes = 32 Time = 0ms TTL = 255
Reply from 10.0.0.1 : bytes = 32 Time = 0ms TTL = 255
Reply from 10.0.0.1 : bytes = 32 Time = 0ms TTL = 255
Reply from 10.0.0.1 : bytes = 32 Time = 0ms TTL = 255

Ping statistics for 10.0.0.1
Packets sent = 4 Received = 4, lost = 0 (0% loss)
Approximate round trip times in milli seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC > telnet 10.0.0.1

Typing 10.0.0.1 open
user Access verification
Password: P0

P1 > enable
Password : P1
R1 # show IP route

C 10.0.0.0/8 is directly connected,
FastEthernet 0/0

Observation :-

→ TELNET stands for Teletype Network. It is a type of protocol that enables one computer to connect to the local computer.

→ It is used as a standard TCP/IP protocol for virtual terminal service provided by ISO.

→ During TELNET operation, whatever is being performed on the remote computer will be displayed by the local computer. Telnet operates on a client/server principle.

31/8/2023