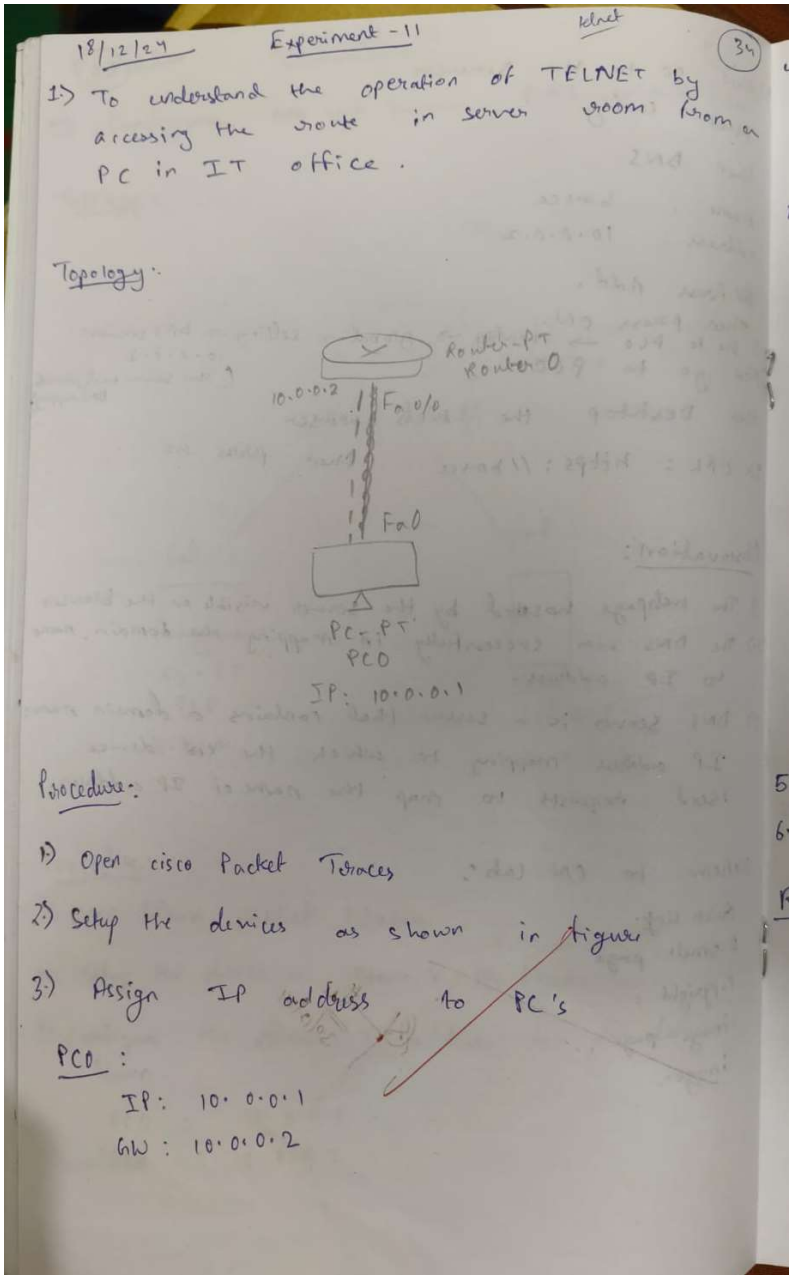
Program 11

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

Topology , Procedure and Observation:



4) In Router 0

CLI

Router > enable

Router # config t

Router (config) # hostname R1

R1 (config) # enable secret Bmsce

R1 (config)# interface fastEthernet 0/0

IP address 10.0.0.2 255.0.0.0

No shut-down

link vty 0 3

login

password <password 2>

exit

exit

wr (To save changes in router)

5.) Go to CMD in PC0 and ping 10.0.0.2

6.) After 1st ping now type Telnet 10.0.0.2

Result:

[Ping]

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2 with bytes 32 time = 0ms TTL=

:

:

Ping statistic:

[Telnet]

Trying 10.0.0.2 - - - open

User access verification

<Enter password 1>

R1> enable

Password: <password 2>

R1# show IP route

Gateway of last route is not set

C: 10.0.0.0/8 is directly connected, Fa0/0

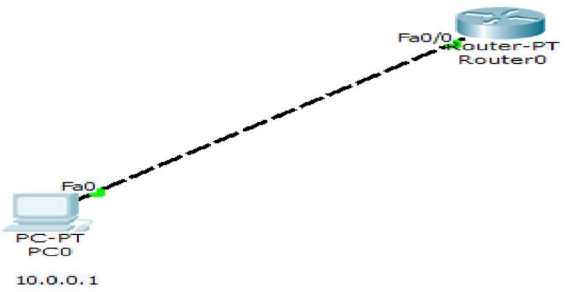
R1#

Observation:

Telnet is a test based protocol that enables remote communication over TCP/IP networks. It allows the execution of commands on a remote device, often used for initial setup & your management.

In the experiment, we see that all configs and commands executed via Telnet mirrored those done directly on the router but from PC interface instead. Disadvantage is that Telnet lacks encryption making it less secure compared to SSH.

Screen Shots:



Command Prompt

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Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.2

Pinging 10.0.0.2 with 32 bytes of data:

Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>telnet 10.0.0.2
Trying 10.0.0.2 ...Open


User Access Verification

Password:
R1>enable
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
R1#
```