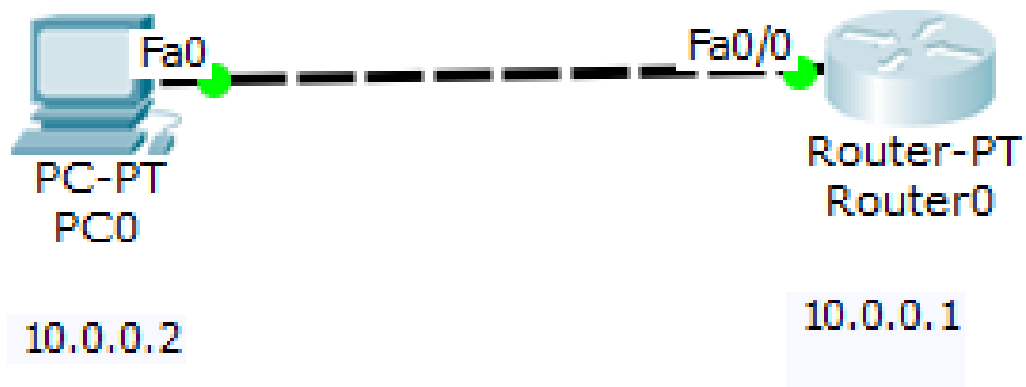


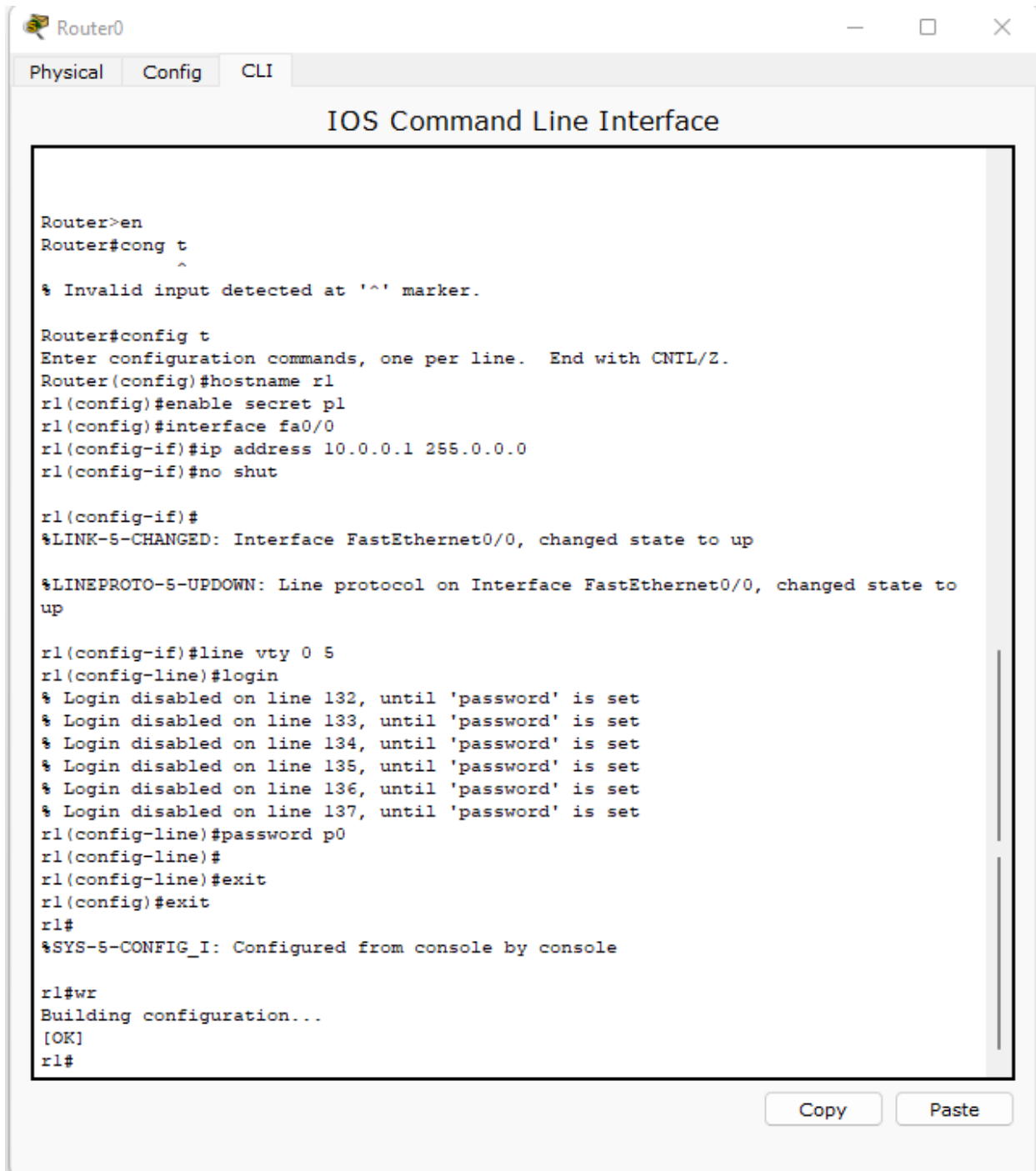
## LAB 12:

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

**Topology:**



## Configuration: Router 0 CLI:



The screenshot shows a window titled "Router0" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The interface shows a series of commands entered at the "Router#" prompt, followed by their outputs. The commands include enabling privileged EXEC mode, entering configuration mode, setting the hostname to "r1", enabling secret passwords, configuring the FastEthernet0/0 interface with IP address 10.0.0.1 and 255.0.0.0, and configuring the VTY lines with login and password "p0". The output shows the interface state changing to up and the VTY lines being configured.

```
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 pl
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

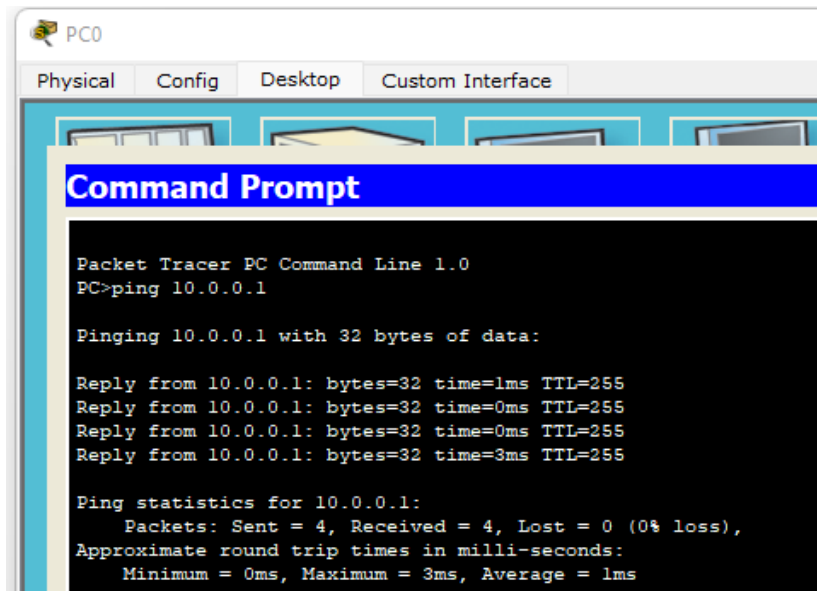
r1(config-if)#line vty 0 5
r1(config-line)#login
% Login disabled on line 132, until 'password' is set
% Login disabled on line 133, until 'password' is set
% Login disabled on line 134, until 'password' is set
% Login disabled on line 135, until 'password' is set
% Login disabled on line 136, until '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
r1#
%SYS-5-CONFIG_I: Configured from console by console

r1#wr
Building configuration...
[OK]
r1#
```

Copy Paste

## Command Prompt:

### PC0 to Router:



The screenshot shows a Packet Tracer window for PC0. The 'Command Prompt' window is open, displaying the results of a ping command to 10.0.0.1. The output shows four successful replies with 32 bytes of data, 0% loss, and round trip times of 1ms, 0ms, 0ms, and 3ms.

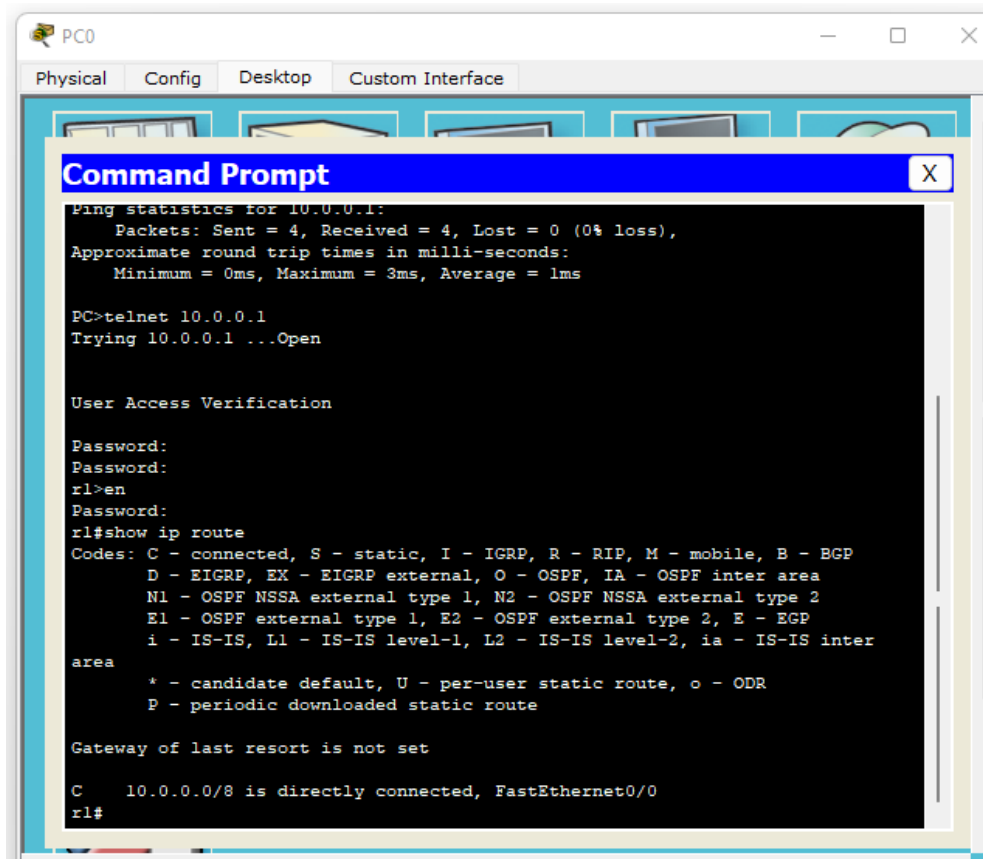
```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.1

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
```

### Accessing the router in server room from a PC in IT office.



The screenshot shows a Packet Tracer window for PC0. The 'Command Prompt' window is open, displaying the results of a telnet command to 10.0.0.1. The output shows a successful connection to the router, followed by a 'show ip route' command. The router's routing table shows a directly connected network of 10.0.0.0/8 on FastEthernet0/0.

```
Packet Tracer PC Command Line 1.0
PC>telnet 10.0.0.1
Trying 10.0.0.1 ...Open

User Access Verification

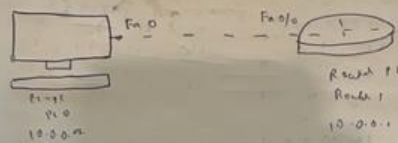
Password:
Password:
rl>en
Password:
rl#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - 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
rl#
```

As a network engineer, you are asked to configure a router in a network. The router is connected to a PC in the office.

Topology



Procedure

1. Connect a topology to the switch

2. Configure the IP address & gateway for PC

3. Configure

4. Step 1: Enable

5. Config T

6. Hostname R1

7. Enable Serial 1/1

8. Interface Serial 1/1

9. IP address 10.0.0.1 255.0.0.0

10. No shut

11. Run bgp 0.5

12. Log

13. Run show ip

14. Run show ip

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