



Jashore University of Science & Technology
Computer Science & Engineering

Course Code: CSE-3202

A Documentation on

Design a VLAN with 3 switch and one Router

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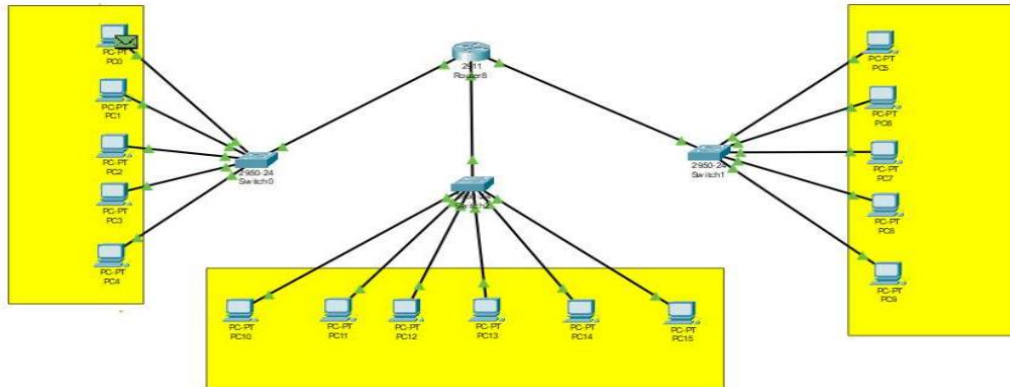
Submission Date: 17.09.2022

Experiment no: 2

Experiment name: Design a VLAN with 3 switch and one Route

Setup process:

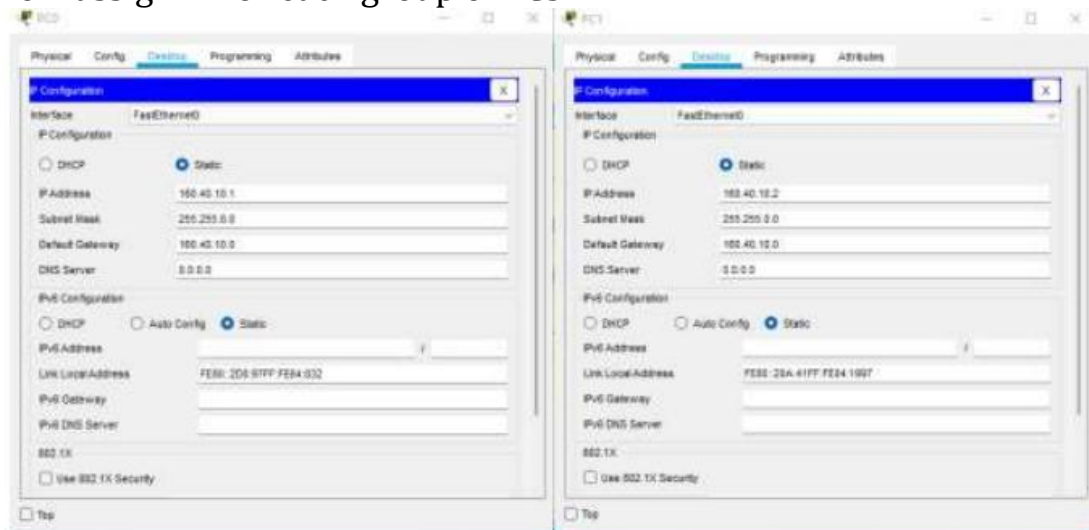
At first open packet tracer and make such diagram.

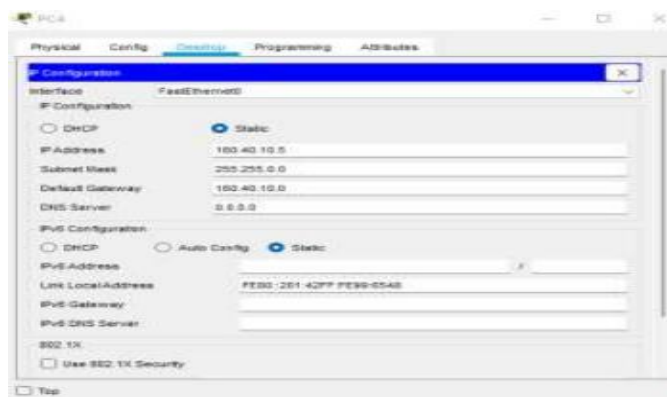
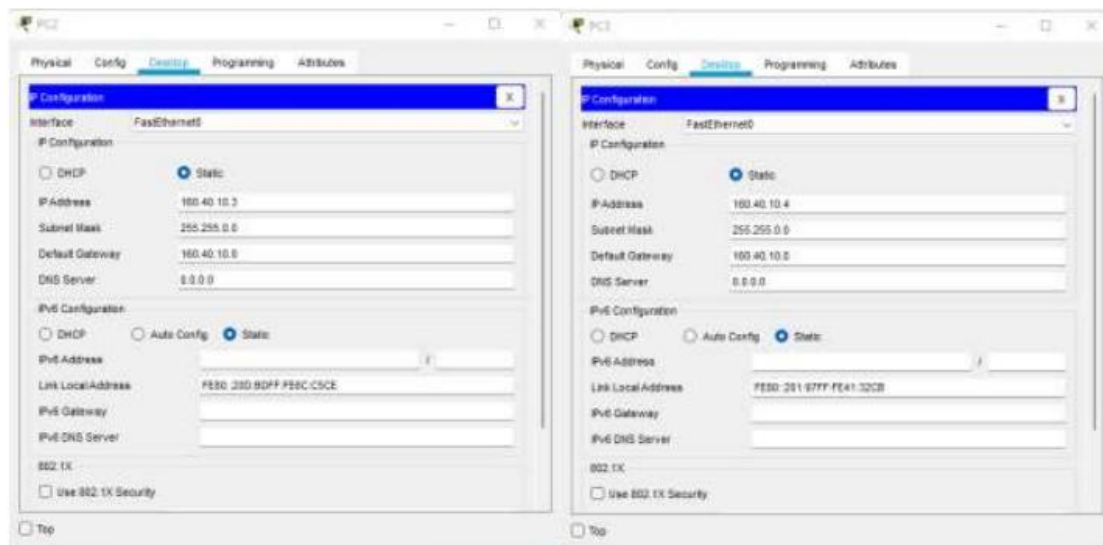


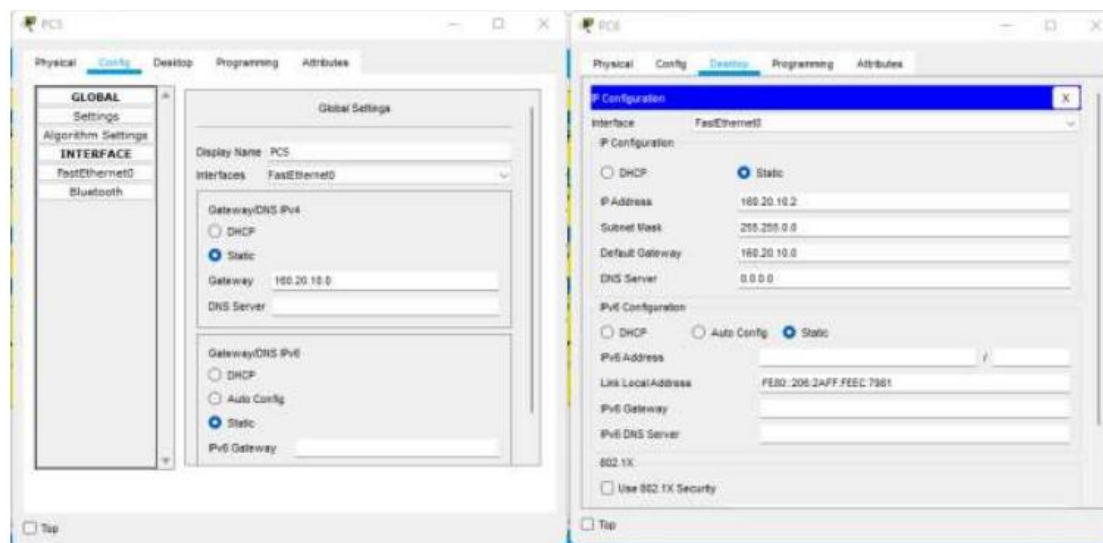
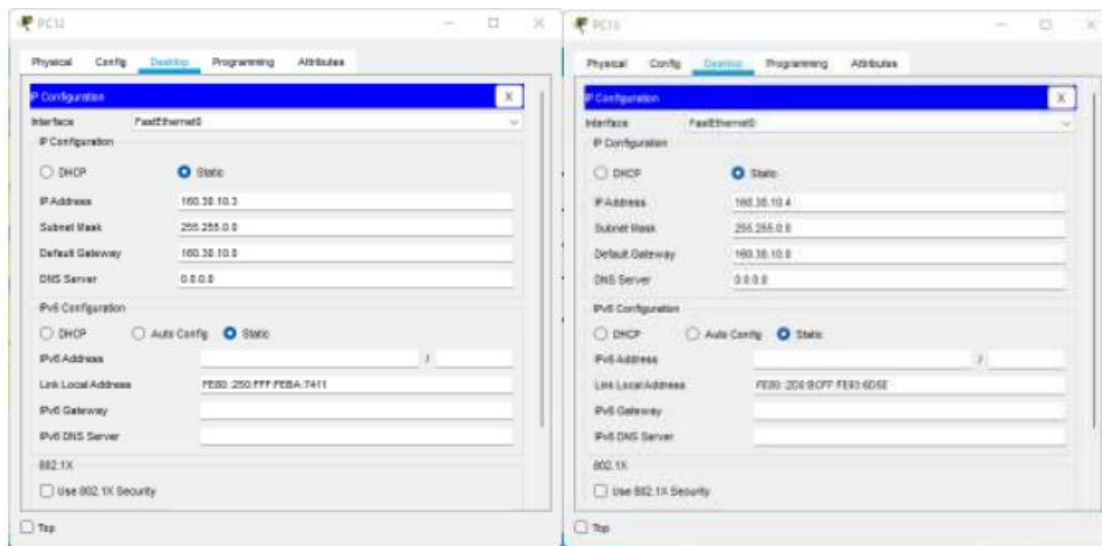
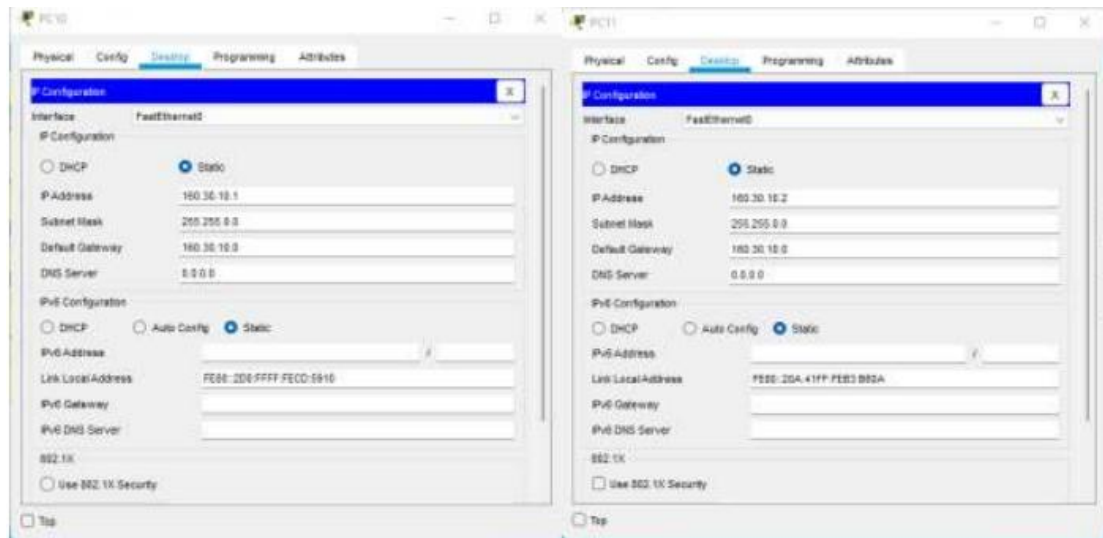
Here we use total 16 PCs (PC0 – PC15), 3 switches (2950-24), and one router (2911).

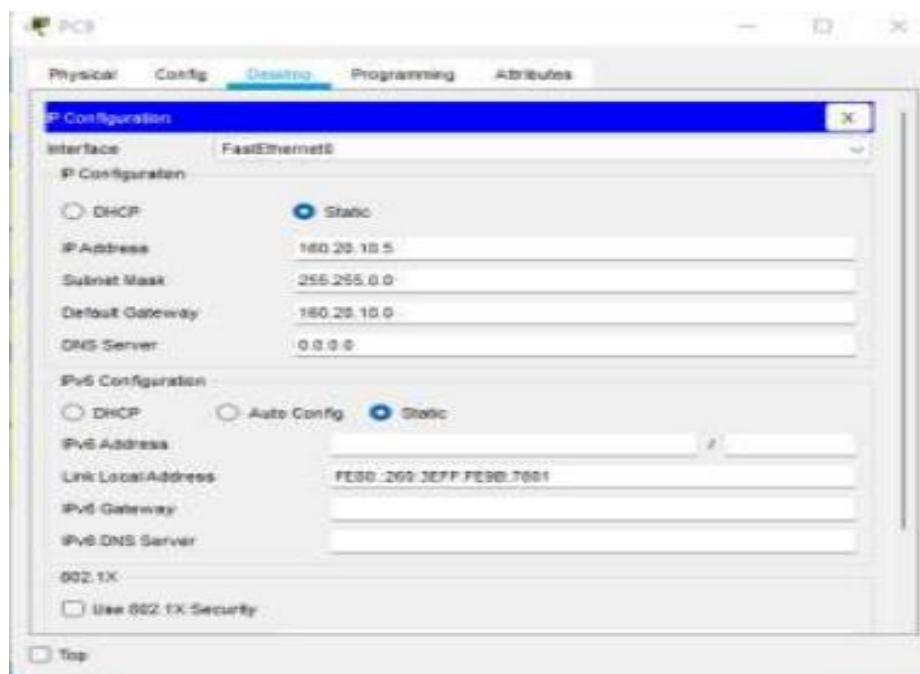
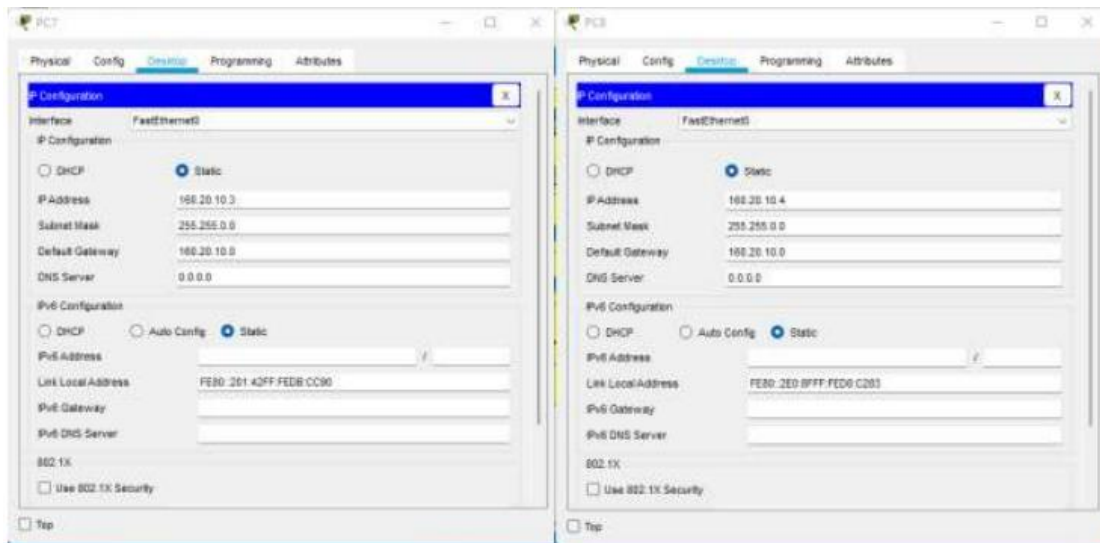
Now let's do sub netting of given IP address 160.40.10.1 we have 3 group and they have 5, 6 and 5 user.

Now assign IP for each group of PCs.









Now configure the router for this 3 groups.

Router>enable

Router#config

Router(config)#interface (port)

Router(config-if)#ip address (ip address)

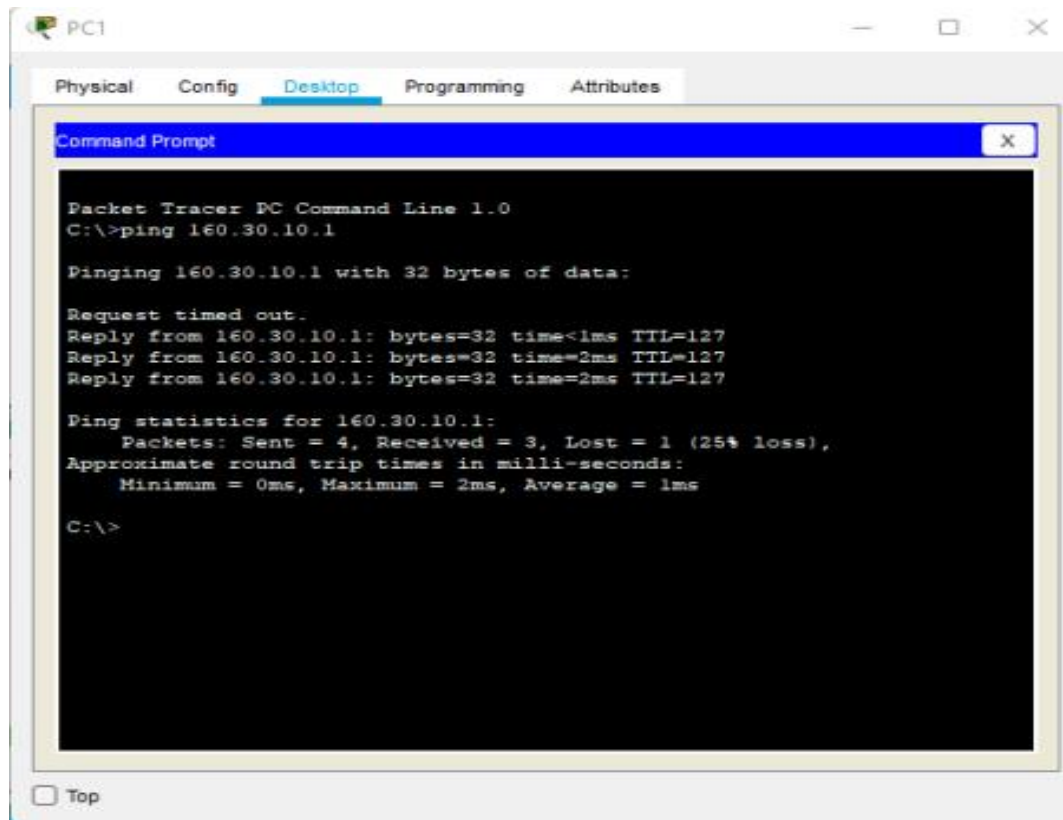
Router(config-if)#no shutdown

Router(config-if)#

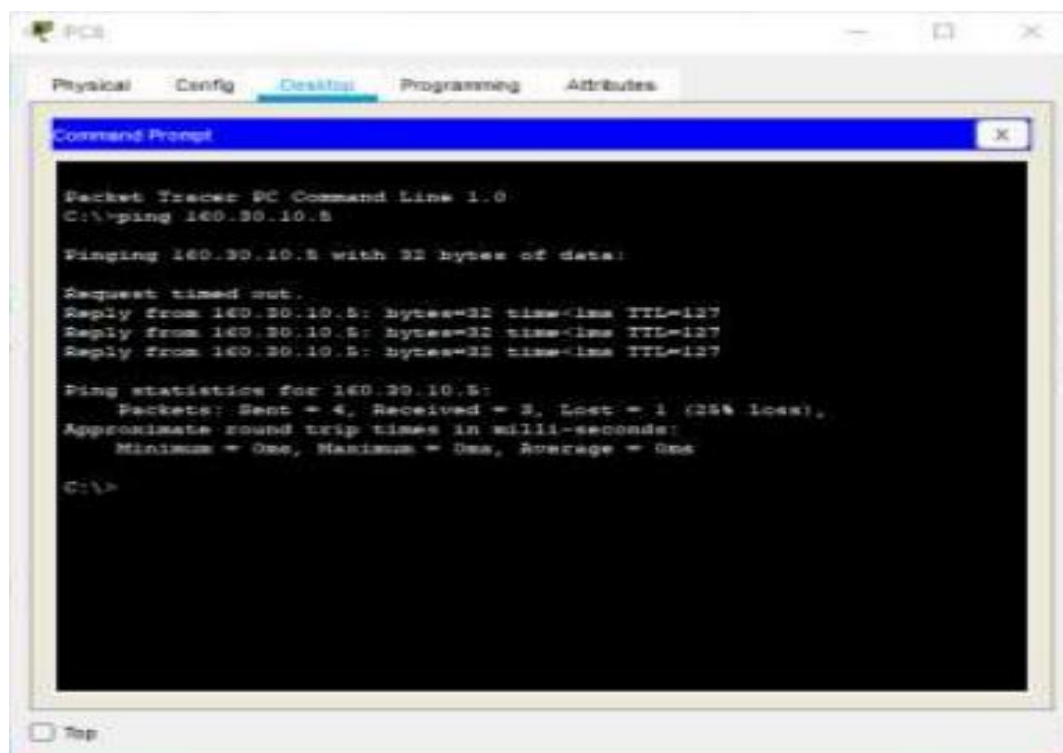
Thus the diagram should establish connection.

Lets ping between each group

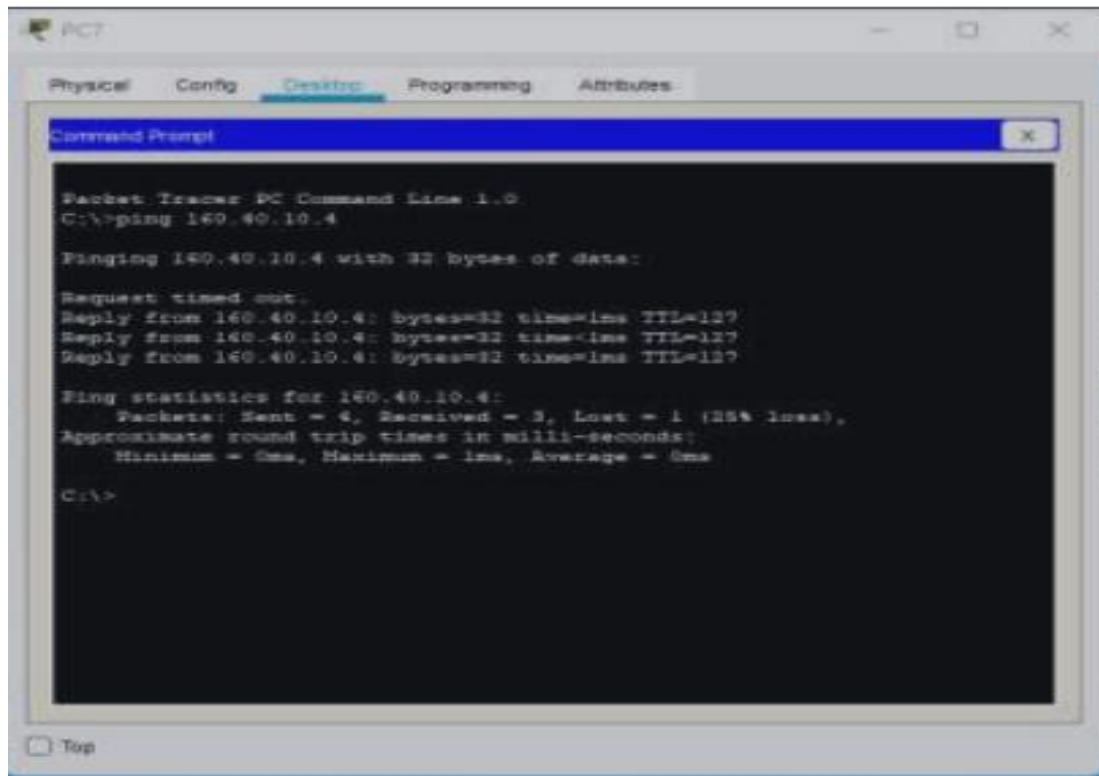
Ping PC1 with PC10



Ping PC6 with PC14



Ping PC7 with PC3



The screenshot shows a Packet Tracer PC Command Line window for PC7. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, displaying a Command Prompt. The Command Prompt shows the execution of the command 'ping 160.40.10.4'. The output indicates that the first request timed out, while the subsequent three requests were successful, each receiving 32 bytes of data with a time of 1ms and a TTL of 127. The ping statistics for 160.40.10.4 show 4 packets sent, 3 received, and 1 lost (25% loss). The approximate round trip times in milliseconds are: Minimum = 0ms, Maximum = 1ms, and Average = 0ms. The Command Prompt ends with the prompt 'C:\>'.

```
Packet Tracer PC Command Line 1.0
C:\>ping 160.40.10.4

Pinging 160.40.10.4 with 32 bytes of data:

Request timed out.
Reply from 160.40.10.4: bytes=32 time=1ms TTL=127
Reply from 160.40.10.4: bytes=32 time=1ms TTL=127
Reply from 160.40.10.4: bytes=32 time=1ms TTL=127

Ping statistics for 160.40.10.4:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```