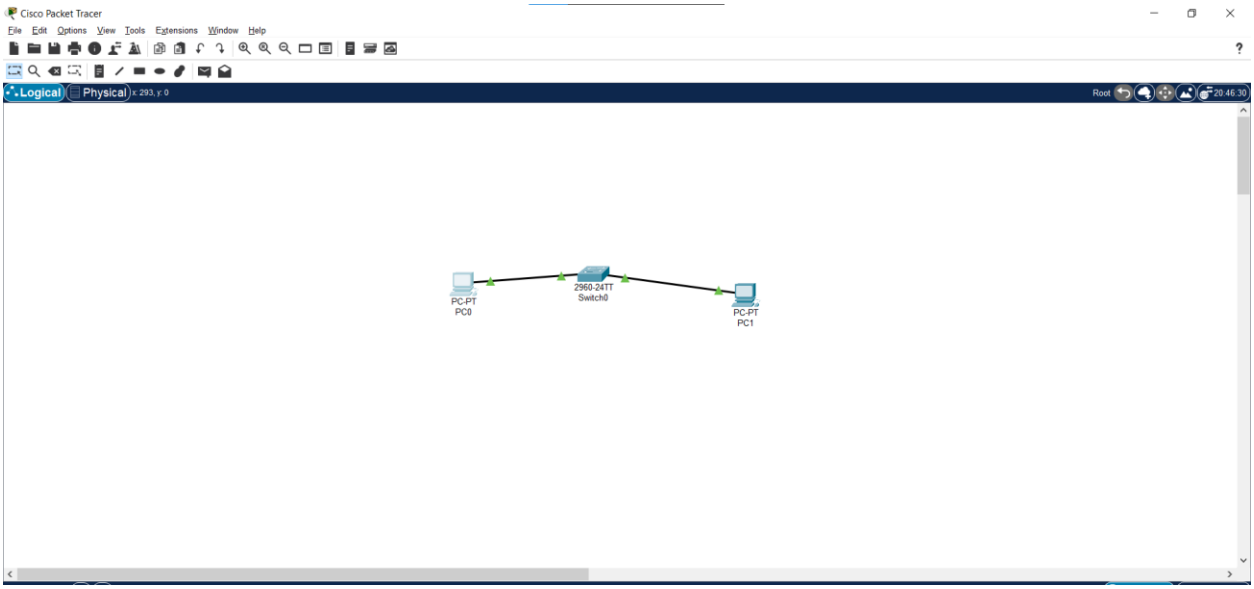
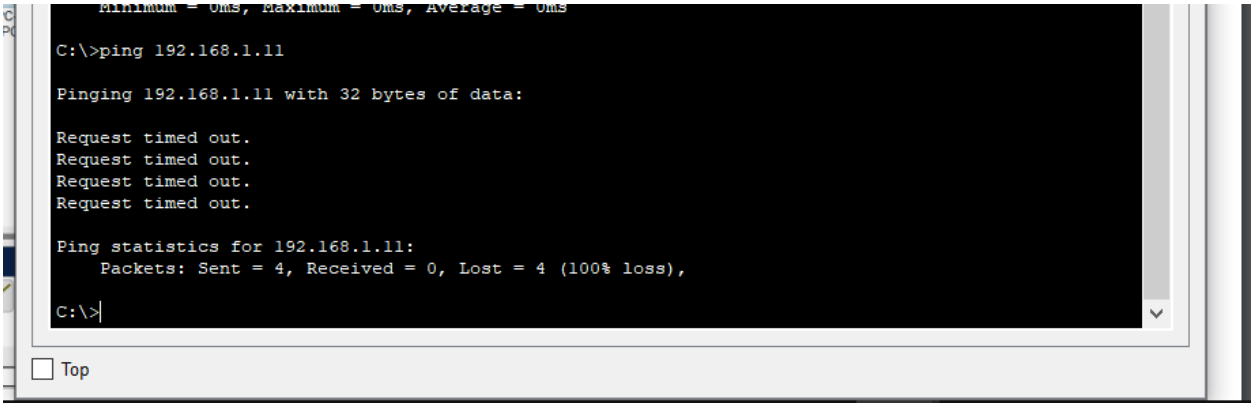
Troubleshoot Ethernet Communication with ping and traceroute -> Using cisco packet tracer:

• Create a simple LAN setup with two Linux machines connected via a switch.

• Ping from one machine to the other. If it fails, use ifconfig to ensure the IP addresses are configured correctly.

• Use traceroute to identify where the packets are being dropped if the ping fails





Tracerouting

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C:\>tracert 192.178.1.11

Tracing route to 192.178.1.11 over a maximum of 30 hops:

  1    *        *        *        Request timed out.
  2    *        *        *        Request timed out.
  3    *        *        *        Request timed out.
  4    *        *        *        Request timed out.
  5    *        *        *        Request timed out.
  6    *        *        *        Request timed out.
  7    *        *        *        Request timed out.
  8    *        *        *        Request timed out.
  9    *        *        *        Request timed out.
  10   *        *        *        Request timed out.
  11   *        *        *        Request timed out.
  12   *        *        *        Request timed out.
  13   *        *        *        Request timed out.
  14   *        *        *        Request timed out.
  15   *        *        *        Request timed out.
  16   *        *        *        Request timed out.
  17   *        *        *        Request timed out.
  18   *        *        *        Request timed out.
  19   *        *        *        Request timed out.
  20   *        *        *        Request timed out.
  21   *        *        *        Request timed out.
  22   *        *        *        Request timed out.
  23   *        *        *        Request timed out.
  24   *        *        *        Request timed out.
  25   *        *        *        Request timed out.
  26   *        *        *        Request timed out.
  27   *        *        *        Request timed out.
  28   *        *        *        Request timed out.
  29   *        *        *        Request timed out.
  30   *        *        *        Request timed out.

Trace complete.

C:\>
```

Ping

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Trace complete.

C:\>ping 192.168.1.20

Pinging 192.168.1.20 with 32 bytes of data:

Reply from 192.168.1.20: bytes=32 time<1ms TTL=128
Reply from 192.168.1.20: bytes=32 time=7ms TTL=128
Reply from 192.168.1.20: bytes=32 time<1ms TTL=128
Reply from 192.168.1.20: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 7ms, Average = 1ms

C:\>
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