NETWORKING PROJECT 1

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Tittle: Ping to Google.com

Purpose:

- Ping is a simple network diagnostic tool that checks if a specific host (like a website or server) is reachable from your computer and measures the round-trip time for data packets sent to the destination.
- It helps determine if the target is online, reachable, or experiencing network issues.

How it Works:

- Ping sends ICMP Echo Request packets to the target, which then responds with ICMP Echo Replies.
- The time between sending the request and receiving the reply is measured to determine the network delay.

Common Results:

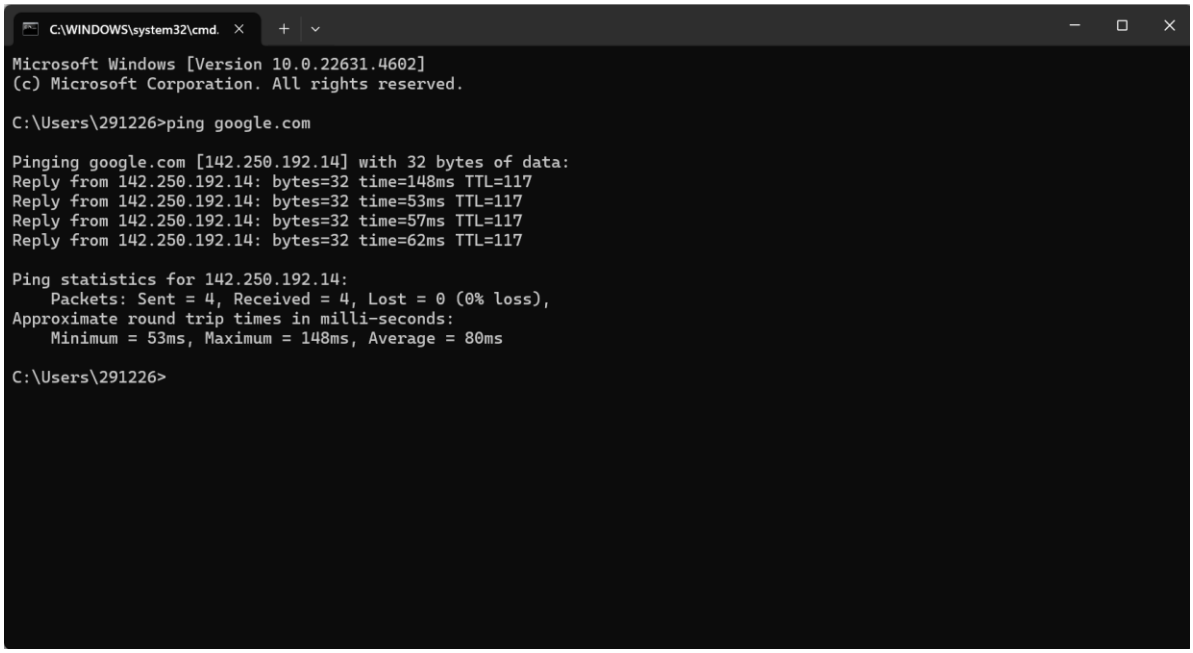
- Success: Replies indicate the target is reachable.
- Failure: No replies suggest network issues or the target is unreachable.
- Packet Loss: Indicates possible network congestion or routing issues.

Practical:

Steps to Tracert to Google.com

Ping to Google.com

- **Step 1:** Press the **Windows key** or click on the **Start** button.
- **Step 2:** Type cmd and hit **Enter** to open the Command Prompt.
- **Step 3:** In the Command Prompt window, type the following command and press **Enter** ping google.com
- **Step 4:** Wait for the results. The Command Prompt will display the round-trip time (RTT) for each packet sent to google.com.



EID: 291226 Name: J Prashanth

Title: Tracert to Google.com

Purpose:

- Tracert is a network diagnostic tool that traces the route data packets take from your computer to a specific host (like google.com).
- It helps determine the path and measure the round-trip time (RTT) for each hop along the route to the destination.

How it Works:

- Tracert sends a series of ICMP Echo Request packets with increasing TTL (Time-to-Live) values to the target.
- Each router or hop along the route decrements the TTL by 1. When TTL reaches 0, the router sends an ICMP Time Exceeded message back to the sender, revealing the route.
- The round-trip time for each hop is measured and displayed.

Common Results:

- **Success:** Shows the route and round-trip times to each hop and the destination.
- **Timeout:** Some hops may show a "Request Timed Out" message, indicating that a router is not responding to ICMP requests (this is often due to firewalls or network configurations).
- **Delays:** High RTT at certain hops may indicate network congestion or delays at specific points along the route.

Practical: Steps to Tracert to Google.com

- **Step 1:** Press the Windows key or click on the Start button.
- **Step 2:** Type cmd and hit Enter to open the Command Prompt.
- **Step 3:** In the Command Prompt window, type the following command.
- Enter: tracert google.com
- **Step 4:** Wait for the results. The Command Prompt will display the route taken by the data packets, showing each hop's IP address and the RTT for each.