MAXX POTENTIAL

Part 2: Networking Byte-by-Byte!

1. What happens when you open google.com in a web browser? Here are some terms you may consider in your discussion:
- Internet Service Provider (ISP)
- Web Browser
- IP Address
- Local Router
- DNS
- Network Switch
- Web Server
- Packet
- Protocol
- URL
- Top Level Domain

2. Which of the following commands can you use to find your server's Local IP Address?
```
$ iwconfig
$ ifconfig
$ netstat -N
$ netstat -c
```

3. Experiment with this hosted Traceroute Tool (https://tools.keycdn.com/traceroute), are you surprised by what you see?

4. Try trace-routing maxxpotential.com & google.com. What are some of the differences you see?

5. What is a web server? Is it hardware or software?

6. Let's play with the web server running by executing the following command:
```
$ ip addr show eth0 | grep inet | awk '{ print $2; }' | sed 's/\/.*$//'
```

You'll receive a few lines, you can try each in your web browser to see if they work.

Another method:
```
$ curl -4 icanhazip.com
```

12. What happens when you type: Can you still see the site at the server's ip address?
```
$ systemctl stop nginx
```

13. What about:
```
$ systemctl start nginx
```

14. Can you access another group's web server? Why or why not?

Bonus Challenge: What is the full path to the **index.html** that is currently displayed at your server's IP address?

Bonus Commands
```
$ curl
$ scp
$ nmap
$ grep
$ tree
$ netstat
$ reboot
$ apt-get update && apt-get install sl && sl
$ apt-get install rig && rig
```