INR Lab 6 - Do Whatever You Want

1. **Network Automation:**
    a. Try to redo one of the labs that you have already done before but this time try to use configuration automation using for example some libraries in python or some scripting engine in your preferred network device

2. **Web Proxy:**
    a. Try to configure a VM to use a proxy application that is installed on your host, This is important in case you want to do some traffic analysis on some application that is running inside the VM.
    b. *Try to deploy a transparent proxy*

3. **Monitoring:**
    a. Try to do traffic monitoring on one of the networking devices from your previous labs and try to monitor and save the traffic that is going from/to a VM, This is very important in case you will have to do some networking investigation.

4. **Traffic Mirroring:**
    a. One of the ways to collect and save a copy of the networking traffic is to do Traffic Mirroring, so try to configure it on one of the previous labs before.

5. **Packet Crafting:**
    a. Use one of the tools/libraries for crafingnetwork packets (for example, scapy) to investigate the vulnerabilities of your network in one of the previous labs. Try different library functionality in practice, for example, to:
    - what data can you intercept
    - what protocols can you modify
    - what devices can you scan
    - what network attacks can you conduct
    - what kind of load testing on communication channels can you implement
    - etc. depending on your aspirations

6. ***Your Idea:***
    a. If you want to explorer an idea that you had and didn't have time to check, you can do it here, if your idea is interesting, **It will be counted as 2 tasks**, **Can be done in a team of 2**.

Notes:

- Make the report as technical as possible (no installation guide please).
- Try to include a network scheme in your report
- If you paste some data (routing table), please make sure it is readable and the format did not change
- If you want to include a command in the report, please highlight it (bold, italic, different format, ...)
- **You need to complete at least 2 task**