Task Implementation:

- At first, I've researched about the CVE-1999-0016 and read about the LAND Attack and gathered information about the DOS & DDOS attack and their working
- Later, I've selected a Vulnerable Operating System on which I can perform the task
- Then, I thought I would need a virtual router to make the VMs talk with each other but when I tried making some changes to the network adapters then the VMs were able to talk with each other without the need of a router
- Create a Host-only Network Adapter if you do not have one already created in the VirtualBox for Internal Networking
- I've chosen hping3 tool to flood the target with poison packets (TCP SYN packets IP spoofing)
- Turned off the Firewall settings & installed apache server using the older version of Xampp (for supportability) on Windows XP so that I can connect to it through the Ubuntu VM and
- To connect & to verify externally whether the target was vulnerable or not to the LAND Attack performed, I've taken Web Page response time into consideration i.e. I've tried to connect to the target http server using its IP address. The normal response time is < 2 seconds (but mostly < 0.5 second), so therefore if the response time is more than 2 seconds then the target is vulnerable to LAND attacks
- While implementing the program code, do mention the IP address as an argument along with command as shown below:

  sudo python task.py <IP_ADDRESS>

Software Used:

- VirtualBox 5.1.30

Operating Systems Used:

- Windows XP SP2 (Target)
- Ubuntu 16.04 LTS (Verifier)

Tools Used:

- Hping3
- Apache, Xampp 1.6.1

Programming Language Used: Python

NOTE: The two VMs had to be in running state