

LAB 2

Objectives:

- What is Ubuntu?
- Discover your network.
- what is Network analyzer ?
- WireShark installation and using.

What Is Ubuntu?

- What is Ubuntu?

- open source operating system.
- A Linux distribution based on the Debian architecture
- Ubuntu is published by Canonical Ltd, which is a UK-based privately held computer software company founded and funded by South African entrepreneur Mark Shuttleworth
- Popular on network servers.
 - multiuser operating system (More than one user can log on and use a Linux computer at the same time)
 - Features, Security, Usage and price is much better

- Basic Ubuntu Commands

- \$ **pwd** → print working directory, display the directory in which you are currently working.
- \$ **ls** → list, view all of the files and folders in your current working directory.
- \$ **cd** → change directory, change the directory in which you are currently working.
- \$ **cp** → copy, copy files or folders in a directory.
- \$ **touch** → create new file.
- \$ **mkdir** → make directory, create new Folder
- \$ **mv** → move, move your files from one folder to another.
- \$ **rm** → remove, remove any files or folders.
- \$ **sudo** → superuser do, a sudo command allows you to run other commands with administrative privilege.
- \$ **man** → view the manual (help) for a command

Discover Your Network

Google it 

Network Analyzer

- What is Network analyzer ?

- Network Analyzer is a hardware device or server software that captures packets transmitted in a network for inspection and problem detection
- Also called a sniffer, packet sniffer, packet analyzer, packet sampler, traffic analyzer or protocol analyzer. .

- Why to use?

- Provide detailed statistics for recent activity on the network.
- Detect unusual levels of network traffic.
- Monitor bandwidth use by application, protocol, or IP Address.
- Identify packet sources or destinations.
- Configure alarms for defined threats.

- A lot of Free network analyzers available!

- Wireshark
- NAST (Network Analyzer Sniffer Tool)
- Zenmap
- Angry IP Scanner
- Caspa

WireShark

- What is a WireShark ?

- free-ware application widely used for network monitoring and analysis
- capturing traffic on networks, record and view the details of every packet sent and received by the computer.
- can be installed on any standard platform such as Windows, Linux, Solaris, etc.
- Website: <https://www.Wireshark.org/>

- Installation :

How to Install Application in Ubuntu ?

1. Use Packaging Tool (APT)

- search for a software package

\$ apt-cache search [keyword]

- install the package

\$ apt-get install [package name]

ex:

\$ apt-get install wireshark

2. If you have already downloaded any software in the package format, i.e. .deb or RPM

\$ sudo dpkg -i filename.deb

3. download and build the source code package (package format, i.e. .tar.gz, tgz or tar.bz2)

Let's have fun

1. Checking your Ubuntu version from the terminal
2. Shows details of the network interfaces that are up and running in your computer and find your connection details. (using **ifconfig** command)
3. Check connection details from network setting
4. Find your IP address
5. Install wireshark.
6. Check Wireshark version that you have installed