# System and Network Administration

## **Linux Systems**

#### 1. Lab 1: Setting Up a Virtual Machine with VirtualBox/VMware

Install a virtual machine.

#### 2. Lab 2: Linux Installation and Setup

• Install a Linux distribution (Ubuntu, Fedora, etc.) in a virtual machine.

#### 3. Lab 3: Linux commands - MANAGING FILES

- Explore basic Linux commands (1s, cd, pwd, cp, mv, etc.).
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#### 4. Lab 4: Understanding File Permissions

- Explore file permissions (rwx) and ownership.
- Change permissions and ownership using chmod and chown.
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### Windows

Lab #1: Managing User Accounts and File Permissions on Windows

Lab #2: Managing User Accounts and File Permissions on Windows [Part 2]

Lab DHCP Server using router

- What is DHCP Sever slides
- How to configure DHCP server using Cisco packet tracer

#### Lab DNS Server

- What is DNS Server slides
- How to configure DNS server using Cisco packet tracer

Lab Configure DHCP Server on the Router

How to configure DHCP server on the router

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### Week 4: Linux - User and Group Management

#### 1. Practical 1: User Management

Add, delete, and modify user accounts (useradd, usermod, passwd, userdel).

#### 2. Practical 2: Group Management

https://yasirbhutta.github.io/

- Add, delete, and modify groups.
- Assign users to groups and explore /etc/passwd and /etc/group.

### **Week 4: Linux Softwares Management**

- 2. Practical 2: Manage Softwares
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## **Final Project**