

M01TU01: Final Exam (Theory) Help

Practical Exercise 2

- a) Meaning of aptitude update
- b) Meaning of aptitude upgrade
- c) File sources.list

Read the section Before starting the practical exercise → Point 1

Practical Exercise 3

- a) Directory
- b) Directory tree
- c) Linux directory structure
- d) Important files and directories

Read Documentation → The Linux directory structure. Important files and their paths. Command tree → Point a) What is a directory?

Read Documentation → The Linux directory structure. Important files and their paths. Command tree → Point b) What is a directory tree?

Read Documentation → The Linux directory structure. Important files and their paths. Command tree → Point c) The Linux directory structure and important files paths.

Practical Exercise 4

- a) IP, Mask, Router, DNS, MAC
- b) DHCP vs Static Configuration
- c) /etc/resolv.conf
- d) Network Manager
- e) What is the purpose of ip, ifconfig, route and ping
- f) Working with ping

Read Documentation Point 2 about Basic network concepts

Read Documentation Point 3 about Basic network concepts

Read Documentation Point 4 about Basic network concepts

Read your practical exercise: Part 1 and Part 2

Practical Exercise 5

- a) Size disk prefixes
- b) What is a partition?
- b) BIOS: Basic ideas, limitations and MBR Partition table
- c) UEFI and GPT basic ideas
- d) What is GParted?
- g) Disk device files. Disk device files and numbers. SATA (sata0, sata1..)

Read Links points 1 to 6

Practical Exercise 6

- a) Introduction
- b) Traditional Linux access permissions: owner, group, others, rwx
- c) symbolic vs numeric.
- d) Recursion
- e) Default file and directory permissions and umask

Read Documentation 1

Read Documentation 2 → Particularly the beginning, numeric and symbolic modes, meaning of recursion, umask and writing proper sentences.

Practical Exercise 7

- a) setuid
- b) ACL
- c) Effective and real user
- d) Effective permissions and umask

Read Practical exercise 7a → Documentation → Points 2 and 3

Read Practical exercise 7b → Documentation → Points 1, 6,7 and 8

Practical Exercise 8

- a) sudo
- b) Users and groups
- c) /etc/passwd, /etc/shadow, /etc/group
- d) Features of users and groups

Read Documentation → Using sudo to execute commands as a root

Read Documentation → Configuring users and group accounts → Point 1: Introduction

Read Documentation → useradd → Options and their meanings

Read Documentation → groupadd → Options and their meanings

Practical Exercise 9

- a) Basic ideas.
- b) Signals
- c) Nice value. Nice and renice

Read Documentation → Point 1: Basic Ideas

Read Documentation → Point 3: Sending Signals → Point 3.1: kill command and signals

Read Documentation → Point 4 → First two paragraphs

Practical Exercise 10

- a) What is a server?
- b) Shutting down and restarting the system: Suspend, hibernate, poweroff and reboot

Practical exercise 10a → Read Documentation → Point 1: What is a server (or daemon)?

Practical exercise 10b → Read Documentation → Point 1: Shutting down and restarting the system → Meaning of poweroff, halt, reboot.

Practical exercise 10b → Read Documentation → Point 3: Suspending and hibernating the system.

Practical Exercise 11

- a) Partition vs Installing filesystem vs mounting
- b) Disk device files. Disk device files and numbers. SATA (sata0, sata1..)
- c) Mountpoint
- d) Typical file systems and their identifiers
- e) SWAP
- f) LVM

Read Documentation --> Point 1 → Basic ideas about filesystems

Read Documentation --> Point 2 → Basic ideas about LVM

Practical Exercise 12

- a) Schedule and examples of use
- b) cron
- c) general crontab
- d) user's personal crontab
- e) Entries and meaning of each field
- f) Special characters and strings

Read Documentation --> Point 1 → Introduction

Read Documentation --> Point 2 → Working with /etc/crontab

Read Documentation → Point 3 → Working with users personals crontab files

Practical Exercise 13

- a) Boot process
- b) /etc/default/grub and main configuration variables
- c) /etc/grub.d
- d) update-grub
- e) /boot/grub/grub.cfg
- f) grub-install

Read Practical exercise 13a → Documentation → Point 1 and 2

Practical Exercise 14

- a) Image
- b) Container
- c) Virtual Machine vs Container
- d) Docker Hub

Read (or play) Documentation --> Point 1 → a, b, c, e and f. Point d) is not required.
