Linux

Training Assignment/Lab

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RECORD OF CHANGES

No	Effective Date	Change Description	Reason	Reviewer	Approver
1	12/03/2022	Create a new Assignment/Lab	Create new	ThuongDD	VinhNV

Contents

Day 1. Unit 1: Set up Lab

Assignment : Install Ubuntu on Vmware/Virtualbox

- Install Vmware/Virtualbox on laptop/PC.

- Download Ubuntu iso and install.

- Config network connect to internet

- Show the current date and time, show the calendar for the previos month, current month and next month.

- Look up the man page for the command.

Objectives:

- Install Ubuntu OS successful

- Connect to Ubuntu from your machine via SSH

- Update your Ubuntu

Problem Descriptions:

Assumptions:

Technical Requirements:

- Know Virtualization, OS and network

Questions to answer:

Estimated Time to complete: 180 mins

Assignment : Manage files and directories

- Create, copy, move files and directories, use tree, locate command.
- Show the fulll path name of your home directory.
- Change permission file/directory (read, write, execute).
- Compress, extract files and directories with zip, tar, 7z, …
- Edit file by vim, nano.
- Use winscp transfer files from other machine to Ubuntu.

Objectives:

- Manage files and directories.
- Use common editor competently.
- Transfer file to Ubuntu.

Problem Descriptions:

Assumptions:

Technical Requirements:

- Know compress and extract tool.
- Know winscp tool.

Questions to answer:

Estimated Time to complete: 180 mins

Day 2. Unit 3: System Management

Assignment 1: Managing software, system and network

- Using apt, apt-get, dpkg, … manage package update, install, remove software (nginx, apache2, sql, …).
- Managing system (task, service, …) use tool: ps, top, htop, kill, grep process.
- Managing network (IP, port, display network, domain,…) use tool: netstat, …

Objectives:

- Manage package software
- Control process and network

Problem Descriptions:

Assumptions:

Technical Requirements:

- Know process system
- Know network

Questions to answer:

Estimated Time to complete: 180 mins

Assignment 2: Manage user & group permission, file permission

- Show all user who are currently logged in, use the utility that displays user's name
- Show the ID number of the terminal that you are using
- Show your user ID
- Check group of username
- Change user, group file's permission (read, write, execute)

Objectives:

- Manage user and group
- Manage file's permission

Problem Descriptions:

Assumptions:

Technical Requirements:

Questions to answer:

Estimated Time to complete: 180 mins

Day 3. Unit 4: Shell Scripts

Assignment 1: Write scripts

- Config crontab auto create, remove file, run scripts update, shutdown machine.

- Learn about variable, funtion, conditionals, Input, Output to write scripts.

- Write scripts install, set up service, auto scan ip, port, …

Objectives:

- Use crontab do assignment job.

- Write scripts do job auto.

Problem Descriptions:

Assumptions:

Technical Requirements:

- Have knownledge about programing.

Questions to answer:

Estimated Time to complete: 300 mins

Day 4. Unit 5: Do assignment

Assignment 1: Work with team

Divide the class to group for search, presentation and disscussion:

- User/group management in Linux

- Task/process management in Linux

- Software management in Linux

- File/Directories in Linux

- Editor software in Linux

- Shell scripting, crontab in Linux

- Remote and Transfer file in Linux

Objectives:

- Disscuss, research and presentation with team 2-4 persons

- Know about this topic and answer question

Problem Descriptions:

Assumptions:

Technical Requirements:

Questions to answer:

Estimated Time to complete: 480 mins

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