“Київський фаховий коледж зв’язку”

Циклова комісія Комп’ютерної та програмної інженерії

ЗВІТ ПО ВИКОНАННЮ

ЛАБОРАТОРНОЇ РОБОТИ №3

з дисципліни: «Операційні системи»

Тема: “Знайомство з базовими командами CLI-режиму в Linux”

Виконали

студенти

групи РПЗ-03

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**The goal of the work:**

1. Getting practical skills for working with the Bash command shell.

2. Familiarity with basic file system navigation commands.

3. Familiarity with basic commands for managing files and directories.

**Material support to occupy:**

1. IBM PC type computer.

2. OS family Windows (Windows 7).

3. Virtual machine - Virtual Box (Oracle).

4. GNU/Linux operating system - CentOS.

5. Cisco network academy site netacad.com and its online Linux courses

**Tasks for preliminary preparation.**

1. Read the short theoretical information for the laboratory work and make a small dictionary

basic English terms for command assignments and their parameters.

2. On the basis of the considered material, answer the following questions:

2.1. Compare the file structures of a Windows-like system and a Linux-like system.

2.2. Explain the concept of FHS. How is this standard used in the context of file systems?

2.3. List the basic commands for working with files and directories in Linux: create,

move, copy, delete.

3. Study the materials of the online course of the Cisco Academy “NDG Linux Essentials”:

- Chapter 7 - Navigating the Filesystem

- Chapter 8 - Managing Files and Directories

4. Take the test in the NDG Linux Essentials course on the following topics:

- Chapter 07 Exam

- Chapter 08 Exam

5. Prepare the initial version of the report electronically:

- Title page, topic and purpose of the work

- Glossary of terms

- Answers to items 2.1-2.3 from tasks for preliminary preparation

**Progress.**

1. Initial work in CLI mode in Linux OS of the Linux family:

1.1. Start the VirtualBox virtual machine, select CentOS and run it. Log in

under user: CentOS, password for login: reverse (if you run LR in 401 aud.) and run

terminal.

1.2. Start the Ubuntu\_PC virtual machine (if you are doing the LR tasks through the netacad academy)

1.3. Start your Linux family operating system (if you are working on your own PC and its

installed) and launch the terminal.

2. Work through all the command examples presented in the NDG Linux Essentials course labs - Lab 7: Navigating the Filesystem and Lab 8: Managing Files and Directories. Create a table for description of these commands\*\*\*

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3. Working in the terminal (consolidation of practical skills), you must present your screenshots:

- Define your current working directory;

- Go to the root directory and define your current working directory (two commands);

- View the contents of the current directory in long format (use the appropriate key

ls commands);

- Go to the /usr/share directory and define your current working directory (two commands)

- View the contents of the current directory, including hidden files

(use the corresponding key of the ls command);

- Go to the /etc directory;

- Browse the contents of a given directory, but only output filenames starting with

the letters of your name;

- Browse the contents of a given directory, but only output files whose names consist of 6

letters;

- Browse the contents of a given directory, but only display files whose names end with

the letters of your names, for example, if your names are Ivan, Anna, Maks, then I will make a selection for the names

files ended with the letters [i,a,m];

- Go to the current user's home directory and view its contents in

recursive (back to alphabetical) format (perform this action through the command pipeline);

- In the current directory, create a directory with the name of your group;

- View the updated contents of the current user's home directory. Take advantage

with the -r switch of the ls command, what information do you get?

- Go to the directory you created with the name of your group and create an empty file in it

lab5

- Create in this directory 3 directories with the surnames of students of your team surname1,

surname2, surname3\* (multi argument mkdir command, so all three directories can be created

one team);

- Go to the first subdirectory surname1 and create an empty file with the name of the first student

name1;

- Using the command echo "Hello, my name is Name1" &gt; name1 enter data about

student (the symbol &gt; allows the output of the echo command to be redirected immediately to the file name1;

- View the contents of the file name1 using the command cat name1 (should contain the just typed

you information)

- Make a copy of the first file name1 and rename it to a file with the second name of your student

commands name2;

- Browse the contents of the directory, both files should appear;

- Review the contents of the second file cat name2 (it should by now contain a full copy of the contents of the file

name1)

- Replace the contents of the file name2 to contain the corresponding name of the second student using

commands echo "Hello, my name is Name2"; &gt; name2

- Review the contents of the second file cat name2 (it should already contain the updated information)

- Move the name2 file to the surname2 directory;

- Make a copy of the first file name1 and rename it to a file with the third name of your student

command name3;

- Move the name3 file to the surname3 directory;

- Go to the directory surname3;

- View the contents of the third file with the cat name3 command (it should contain data about the second

student)

- Replace the contents of the file name3 to contain the corresponding name of the third student with help

commands echo "Hello, my name is Name3" &gt; name3

- View the contents of the file using cat name3 (it should already contain the updated information)

- Return to the user's home directory;

- View the contents of this directory, but to display only your subdirectory with the name of the group and

all its contents (subdirectories surname1, surname2, surname3 and files name1, name2, name3) to

the same files and directories were separated by colors (use the appropriate key -R

ls command and don't forget to use the custom glob template [directory name]\*)

**Control questions:**

1. How can you view the path to the user's home directory using the echo command? Exist

2 ways, give both examples in the terminal (the answer is in the cisco academy materials on the website

netacad.com)

2. Is it possible to view the contents of the root directory while in the user's home directory

without going to the root directory? Demonstrate this on the command line.

3. How can you add information to an empty file in the terminal?

4. How to copy and delete an existing directory? Will there be a difference in commands if the directory is not

empty at the same time

5. In which of the following examples does a file move occur? renaming it?

both actions at the same time?

- mv /work/tech/comp.png. /Desktop

- mv /work/tech/comp.png. /work/tech/my\_car.png

- mv /work/tech/comp.png. /Desktop/computer.png