**"Kyiv Vocational College of Communication"**

**Cyclic Commission of Computer Engineering**

**EXECUTION REPORT**

**LABORATORY WORK No. 5**

from the discipline: "Operating systems"

**Topic**: **"Getting to know file system navigation commands and managing files and directories"**

**Performed by students of the group:**

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Sushanova V.S

**Work of group students КСМ-13Б Team:** **PMC wolf group**

**Kyiv 2023**

**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 provision of classes**

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

**The material was prepared by student Барабаш Матвій**

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

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| --- | --- |
| **uname -a** | **Prints information about the operating system** |
| **cat /etc/os-release** | **Prints information about the operating system** |
| **ls -l** | **Lists files in the current directory** |
| **pwd** | **Prints the current directory** |
| **cd** | **Changes the current directory** |
| **mkdir dir\_name** | **Creates a new directory** |
| **rmdir dir\_name** | **Removes a directory** |
| **touch file\_name** | **Creates a new file** |
| **rm file\_name** | **Removes a file** |
| **echo "Hello, world!" > file\_name** | **Writes a line to a file** |
| **cat file\_name** | **Prints the contents of a file** |
| **man command\_name** | **Prints a manual page for a command** |
| **history** | **Prints a list of recent commands** |
| **cp source\_file destination\_file** | **Copies a file** |
| **mv source\_file destination\_file** | **Moves a file** |
| **nano file\_name** | **Opens a file in a text editor** |
| **vim file\_name** | **Opens a file in the Vim text editor** |
| **less file\_name** | **Views a file** |
| **head file\_name** | **Prints the first few lines of a file** |
| **tail file\_name** | **Prints the last few lines of a file** |
| **grep pattern file\_name** | **Finds lines that contain a specified substring** |
| **sort file\_name** | **Sorts a file** |
| **uniq file\_name** | **Removes duplicate lines from a file** |
| **sudo command\_name** | **Executes a command with elevated privileges** |
| **sudo -l** | **Prints a list of commands that can be executed with elevated privileges** |
| **sudo su** | **Enters a root shell** |
| **useradd user\_name** | **Creates a new user** |
| **passwd user\_name** | **Changes a user's password** |
| **userdel user\_name** | **Deletes a user** |
| **groupadd group\_name** | **Creates a new group** |
| **gpasswd -a user\_name group\_name** | **Adds a user to a group** |
| **gpasswd -d user\_name group\_name** | **Removes a user from a group** |
| **groups user\_name** | **Prints a list of groups to which a user belongs** |
| **mount /dev/sda1 /mnt** | **Mounts a partition to a directory** |
| **umount /mnt** | **Unmounts a partition from a directory** |
| **df -h** | **Prints a list of partitions and their sizes** |
| **fdisk -l** | **Prints a list of partitions on a disk** |
| **mkfs.ext4 /dev/sda1** | **Formats a partition in the ext4 file system** |
| **ifconfig** | **Prints a list of network interfaces** |

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| --- | --- |
| **ip addr** | **Prints a list of network addresses** |
| **ping IP\_address** | **Sends ICMP packets to a specified IP address** |
| **traceroute IP\_address** | **Traces the path of packets to a specified IP address** |
| **etstat -an** | **Prints a list of open ports** |

**The material was prepared by student Погребняк Ілля**   
5) Command cd /

The cd / command changes the current directory to the root directory, which is the top level of the file system.

Command cd /home

The cd /home command changes the current directory to the /home directory, which is the default directory for users.

Command cd ~

The cd ~ command changes the current directory to the home directory of the user who is executing the command.

Command cd (without argument)

The cd command without an argument changes the current directory to the directory that was the current directory before the cd command was executed.

Command cd ..

The cd .. command changes the current directory to the directory one level up in the directory tree.

Command cd ../..

The cd ../.. command changes the current directory to the directory two levels up in the directory tree.

Command cd -

The cd - command changes the current directory to the directory that was the current directory before the previous cd command was executed.