**“Київський фаховий коледж зв’язку”**

**Циклова комісія Комп’ютерної та програмної інженерії**

**ЗВІТ ПО ВИКОНАННЮ**

**ЛАБОРАТОРНОЇ РОБОТИ №5**

з дисципліни: «Операційні системи»

**Тема:** **“Знайомство з командами навігації по файловій системі та керування файлами та каталогами”**

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**Мета роботи:**

**1. Отримання практичних навиків роботи з командною оболонкою Bash.**

**2. Знайомство з базовими командами навігації по файловій системі.**

**3. Знайомство з базовими командами для керування файлами та каталогами.**

**Матеріальне забезпечення занять**

**1. ЕОМ типу IBM PC.**

**2. ОС сімейства Windows (Windows 7).**

**3. Віртуальна машина – Virtual Box (Oracle).**

**4. Операційна система GNU/Linux – CentOS.**

**5. Сайт мережевої академії Cisco netacad.com та його онлайн курси по Linux**

**Хід роботи**

**Виконав роботу Міньков Ілля**

1. **Як можна переглянути шлях до домашньої директорії користувача за допомогою команди echo? Існує 2 способи, наведіть обидва приклади у терміналі**

You can view the path to a user's home directory using the echo command and the HOME environment variable. Here are two methods:

Method 1: Using $HOME:

echo $HOME

This command will output the absolute path to the home directory of the current user.

Method 2: Using ~ (tilde):

echo ~

This command will also display the absolute path to the home directory of the current user. The use of the tilde in this context is a shorthand for the user's home directory.

**Виконав роботу Міньков Ілля**

1. **Чи можна переглянути вміст кореневого каталогу, перебуваючи у домашньому каталозі користувача без переходу у кореневий каталог? Продемонструйте це в командному рядку.**

Yes, you can view the contents of the root directory while being in a user's home directory without the need to switch to the root directory. You can do this by using the absolute path to the root directory. Here's an example using the ls command to display the contents of the root directory while in a user's home directory:

ls /

This command will list the files and folders in the root directory, regardless of your current location (in your home directory or elsewhere). You use the absolute path / to reference the root directory, even if you are in a different directory.

**Виконав роботу Міньков Ілля**

**3. Яким чином в терміналі можна додати інформацію в порожній файл?**

To add information to an empty file in the terminal, you can use various commands such as echo, printf, or cat. Here are examples of each of these methods:

Using the echo command:



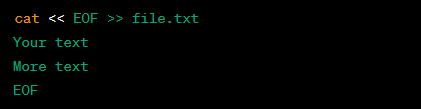
This command will append "Your text" to a file named file.txt. If the file does not exist, it will be created.

Using the printf command:



This command will also add "Your text" to the file.txt file.

Using the cat command (for appending text to an existing file):



This command allows you to add a substantial amount of text to a file and can use the EOF string to specify the beginning and end of the text to be appended to the file.

Instead of file.txt, you can specify the path and name of the file to which you want to add information.

**Виконав роботу Міньков Ілля**

**4. Як скопіювати та видалити існуючий каталог? Чи буде відмінність в командах, якщо каталог буде не**

**порожній при цьому**

To copy and delete an existing directory in Linux, you can use the cp and rm commands. The commands differ when the directory is not empty.

Copying an Empty Directory:



Here, source\_directory is the source you're copying from, and destination\_directory is where you're copying to. The -r option instructs cp to recursively copy the contents of the directory.

Copying a Non-Empty Directory:

To copy a non-empty directory along with its contents, you can also use cp with the -r option. Here's an example:



This command is used to copy a directory and its contents.

Deleting an Empty Directory:



This command deletes an empty directory. Make sure the directory is empty before attempting to delete it.

Deleting a Non-Empty Directory:

To delete a non-empty directory and its contents, use the rm command with the -r (recursive) option. Be careful, as this will irreversibly delete the directory and all its files and subdirectories:



Note that recursive deletion with the rm command does not prompt for confirmation, so be cautious to avoid unintended data loss.

**Виконав Колотуша Микола**

**5. У якому з наведених нижче прикладів відбувається переміщення файлу? його перейменування?**

**одночасно обидві дії?**

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

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

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

**In the provided examples, the following actions take place:**

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

File Movement: The file /work/tech/comp.png is moved to the /Desktop directory.

No renaming occurs.

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

File Movement: The file /work/tech/comp.png is moved to the /work/tech directory and is given a new name as /work/tech/my\_car.png.

Both movement and renaming happen simultaneously.

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

File Movement: The file /work/tech/comp.png is moved to the /Desktop directory and is renamed as /Desktop/computer.png.

Both movement and renaming occur simultaneously.

**Conclusion:**

The purpose of this work was to acquire practical skills in working with the Bash command-line shell, familiarize oneself with basic file system navigation commands, and learn basic commands for managing files and directories.

Throughout the completion of the assignment, practical skills in working with the Bash command-line shell were gained. The basic commands for navigating the file system and managing files and directories were explored. These skills are essential for efficient operation in Unix-like operating systems, such as Linux.

By utilizing navigation commands, users can easily traverse directories, view the contents of the current directory, and determine their location within the file system. Commands for file management enable the creation, copying, moving, renaming, and deletion of files and directories.

The acquired skills can be invaluable when working with the Linux operating system or any other system that utilizes the command-line interface. Bash commands empower users to have finer control over the file system and execute various tasks in text mode.

Thus, the knowledge and skills gained will enable users to interact more effectively with the operating system at the command-line level, which can be beneficial in a variety of computer usage scenarios.