**Task1.Part1**

1. Log in to the system as root.

>>sudo

1. Use the passwd command to change the password. Examine the basic parameters of the command. What system file does it change \*?

>> /etc/passwd

1. Determine the users registered in the system, as well as what commands they execute. What additional information can be gleaned from the command execution?

>> nano /etc/passwd

>> user format -> login : password : UID : GID : GECOS : home : shell

>> active users -> w

1. Change personal information about yourself.

>> usermod (change user parameters)

>> chfn (change user info)

1. Become familiar with the Linux help system and the man and info commands. Get help on the previously discussed commands, define and describe any two keys for these commands. Give examples.

>> Change full name -> sudo chfn –f ZKaster zkaster

>>Change home phone -> sudo chfn -h 0111-111111 zkaster

1. Explore the more and less commands using the help system. View the contents of files .bash\* using commands.

>> cat <filename>

>> history

>> finger

>> whoami

>> id

1. \* Describe in plans that you are working on laboratory work 1. Tip: You should read the documentation for the finger command.

>> At first I have to install ‘finger’

>> sudo apt install finger

>> This command help us to determine changes (shows information about system users)

>> Keys: -s login names; -l multiline format

1. \* List the contents of the home directory using the ls command, define its files and directories. Hint: Use the help system to familiarize yourself with the ls command.

>> -a, --all do not ignore entries starting with .

--author with -l, print the author of each file

-b, --escape print C-style escapes for nongraphic characters

--block-size=SIZE with -l, scale sizes by SIZE when printing them; e.g.,

-B, --ignore-backups

do not list implied entries ending with ~

-c with -lt: sort by, and show, ctime (time of last

modification of file status information); with -l: show

ctime and sort by name; otherwise: sort by ctime, newest

first

-C list entries by columns

**Task1.Part2**

1. Examine the **tree** command. Master the technique of applying a template, for example, display all files that contain a character **c**, or files that contain a specific sequence of characters. List subdirectories of the root directory up to and including the second nesting level.

>> Have to install(Ubuntu server) sudo apt install tree  
>> tree –P \*c\*

1. What command can be used to determine the type of file (for example, text or binary)? Give an example.

>> This command is ‘file <NAME>’

1. Master the skills of navigating the file system using relative and absolute paths. How can you go back to your home directory from anywhere in the filesystem?

>>cd

1. Become familiar with the various options for the **ls** command. Give examples of listing directories using different keys. Explain the information displayed on the terminal using the **-l** and **-a** switches.

>> ‘ls –l’ shows all info about files (owner, time, access mode) in line

>> ‘ls -a’ shows all files

1. Perform the following sequence of operations:
   * create a subdirectory in the home directory;

>> mkdir subdir

* + in this subdirectory create a file containing information about directories located in the root directory (using I/O redirection operations);

>> cd subdir/  
>> touch filezkaster

* + view the created file;

>> ls, cat or nano filezkaster

* + copy the created file to your home directory using relative and absolute addressing.

>> sudo cp filezkaster /home/filezkasternew

* + delete the previously created subdirectory with the file requesting removal;

>>rm –r subdir/

* + delete the file copied to the home directory.

>> sudo rm filezkasternew

1. Perform the following sequence of operations:
   * create a subdirectory **test** in the home directory;
   * copy the **.bash\_history** file to this directory while changing its name to **labwork2**;

>> mkdit test

>> cd test/

>> sudo cp .bash\_history labwork2

* + create a hard and soft link to the **labwork2** file in the test subdirectory;

>>sudo ln –s labwork2 softlink

>>ln labwork2 hardlink

* + how to define soft and hard link, what do these concepts;

>> A hard link is a file that points to the same underlying inode, as another file. In case you delete one file, it removes one link to the underlying inode. Whereas a symbolic link (also known as soft link) is a link to another filename in the filesystem.

* + change the data by opening a symbolic link. What changes will happen and why

>> The data is changes for soft and hard links, and file

* + rename the hard link file to **hard\_lnk\_labwork2**;

>> mv or install rename

>> sudo mv hardlink hard\_lnk\_labwork2

* + rename the soft link file to **symb\_lnk\_labwork2 file**;

>> sudo mv softlink soft\_lnk\_labwork2

* + then delete the **labwork2**. What changes have occurred and why?

>>Soft link become red and occurs to the error “no such file or directory”.

>>Hard link is ok.

1. Using the locate utility, find all files that contain the squid and traceroute sequence.

>> sudo apt install mlocate

>>locate <name>

1. Determine which partitions are mounted in the system, as well as the types of these partitions.

>> mount

1. Count the number of lines containing a given sequence of characters in a given file.

>> sudo wc hard\_lnk\_labwork2

1. Using the **find** command, find all files in the /etc directory containing the

**host** character sequence.

>> sudo find /etc/ -type f - name host\*

1. List all objects in /etc that contain the ss character sequence. How can I duplicate a similar command using a bunch of **grep**?

>> sudo find /etc/ -type f - name \*ss\*

>> grep ss mysql\_dump.sql

>> count how much -> grep -c ss mysql\_dump.sql

1. Organize a screen-by-screen print of the contents of the /etc directory. Hint: You must use stream redirection operations.

>> ls /etc >> myls

1. What are the types of devices and how to determine the type of device? Give examples.

>> procinfo //cpu

>> lsscsi //devices cd, disk

1. How to determine the type of file in the system, what types of files are there?

>> df

1. \* List the first 5 directory files that were recently accessed in the **/etc** directory.

>> ls /etc/ –lt | head -6