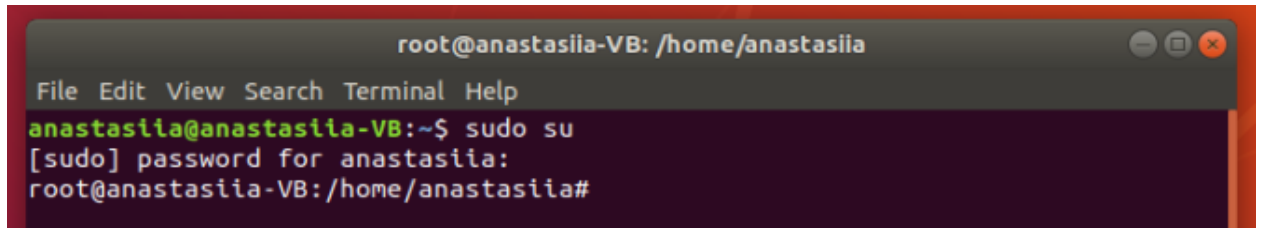1. Log in to the system as root.
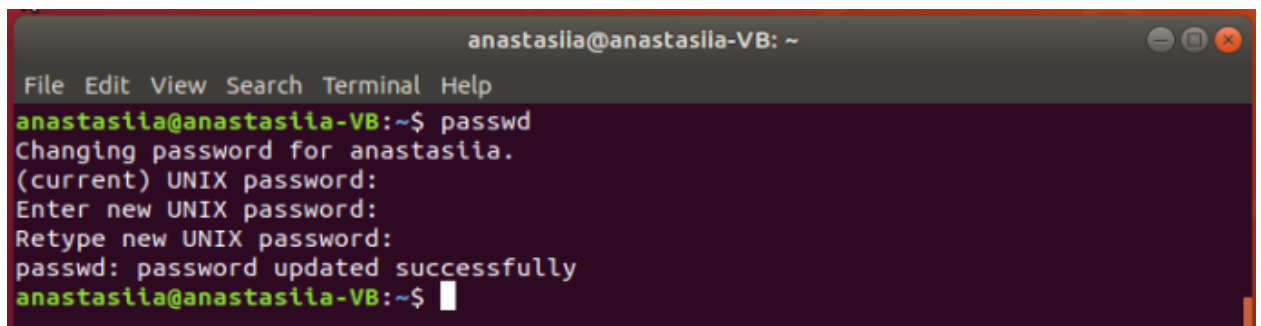
To log in as root, enter the following command in the terminal:


```
root@anastasiia-VB: /home/anastasiia
File  Edit  View  Search  Terminal  Help
anastasiia@anastasiia-VB:~$ sudo su
[sudo] password for anastasiia:
root@anastasiia-VB:/home/anastasiia#
```

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

To change the password, use the following command:


```
anastasiia@anastasiia-VB: ~
File  Edit  View  Search  Terminal  Help
anastasiia@anastasiia-VB:~$ passwd
Changing password for anastasiia.
(current) UNIX password:
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
anastasiia@anastasiia-VB:~$
```

passwd command has options, some of them are:

-l   This option is used to lock the specified account and it is available to root only. The locking is performed by rendering the encrypted password into an invalid string (by prefixing the encrypted string with an !).
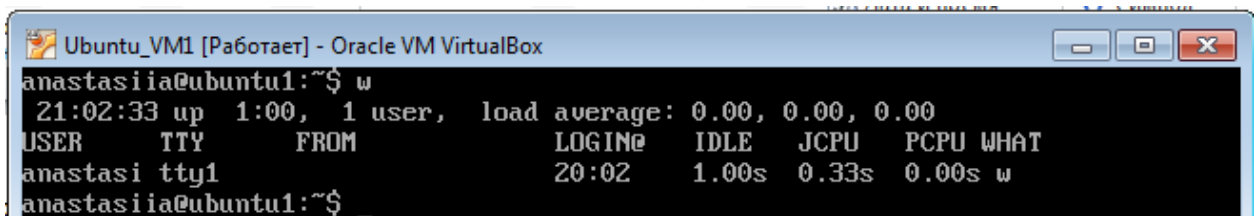
-u   This is the reverse of the -l option - it will unlock the account password by removing the ! prefix. This option is available to root only. By default passwd will refuse to create a passwordless account (it will not unlock an account that has only "!" as a password). The force option -f will override this protection.

-S   This will output a short information about the status of the password for a given account. Available to root user only.

Since /etc/passwd is usually readable, hidden password schemes or a shadow password mechanism are usually used for security purposes. Of course, this will redirect encrypted passwords to a restricted file that may contain additional information (/etc/shadow).

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

w command displays information about the users currently on the machine, and their processes
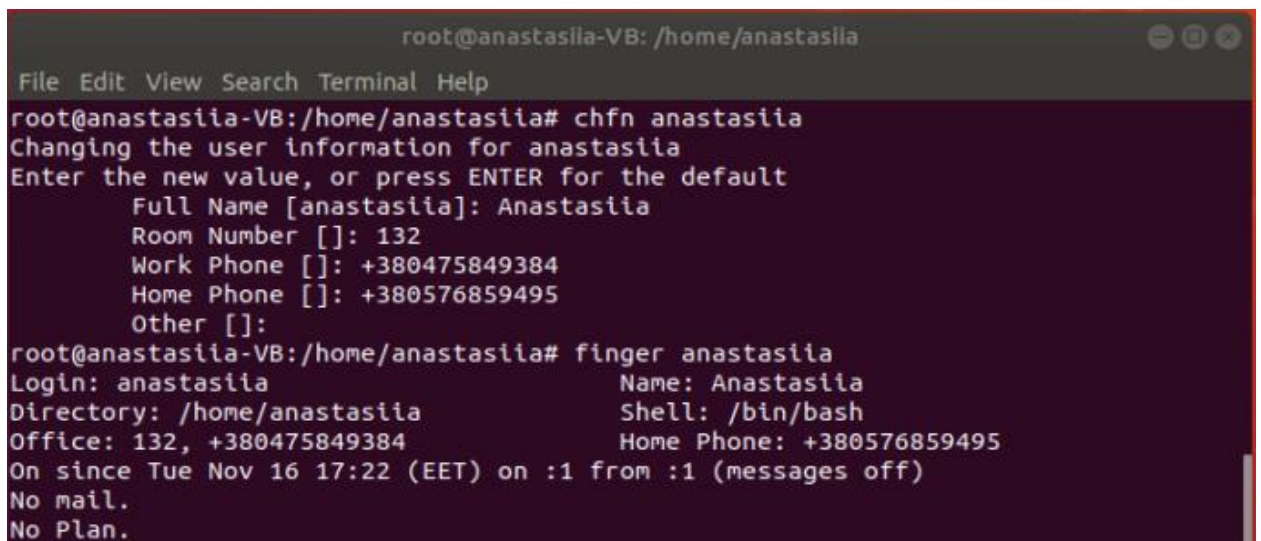
The following entries are displayed for each user: login name, the tty name, the remote host, login time, idle time, JCPU, PCPU, and the command line of their current process.
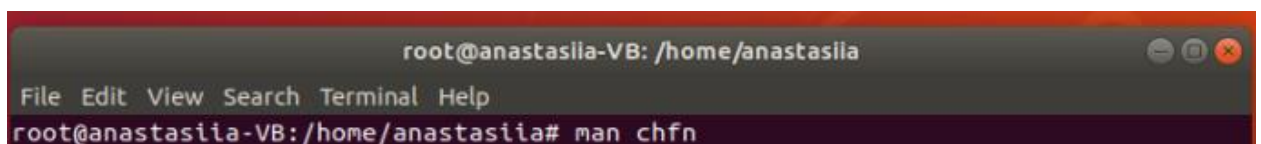
4. Change personal information about yourself

The chfn command changes user fullname, office room number, office phone number, and home number indormation for a user's account. This information is typically printed by finger program.

5. 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.

man is the system's manual pager. Each page argument given to man is normally the name of program, utility or function. The manual page associated with each of these arguments is then found and displayed. A section, if provided, will direct man to look only in that section of the manual. man [-acdfFhkKtwW] [--path] [-m system] [-p string] [-C config_file] [-M pathlist] [-P pager] [-B browser] [-H htmlpager] [-S section_list] [section] name ...

```
                       root@anastasiia-VB: /home/anastasiia                      ●□⊗
File  Edit  View  Search  Terminal  Help
CHFN(1)                         User Commands                         CHFN(1)

NAME
       chfn - change real user name and information

SYNOPSIS
       chfn [options] [LOGIN]

DESCRIPTION
       The chfn command changes user fullname, office room number, office
       phone number, and home phone number information for a user's account.
       This information is typically printed by finger(1) and similar
       programs. A normal user may only change the fields for her own account,
       subject to the restrictions in /etc/login.defs. (The default
       configuration is to prevent users from changing their fullname.) The
       superuser may change any field for any account. Additionally, only the
       superuser may use the -o option to change the undefined portions of the
       GECOS field.

       These fields must not contain any colons. Except for the other field,
       they should not contain any comma or equal sign. It is also recommended
       to avoid non-US-ASCII characters, but this is only enforced for the
       phone numbers. The other field is used to store accounting information
 Manual page chfn(1) line 1 (press h for help or q to quit)
```

The info comman is used to read documentation in Info format: info [OPTION]… [MENU-ITEM...]


```
⬆                      root@anastasiia-VB: /home/anastasiia                      ●□⊗
 File  Edit  View  Search  Terminal  Help
root@anastasiia-VB:/home/anastasiia# info w
                       root@anastasiia-VB: /home/anastasiia                      ●□⊗
 File  Edit  View  Search  Terminal  Help
W(1)                            User Commands                            W(1)

NAME
       w - Show who is logged on and what they are doing.

SYNOPSIS
       w [options] user [...]

DESCRIPTION
       w  displays  information  about the users currently on the machine, and
       their processes.  The header shows, in this order,  the  current  time,
       how  long  the  system  has  been running, how many users are currently
       logged on, and the system load averages for the past 1, 5, and 15  min-
       utes.

       The  following entries are displayed for each user: login name, the tty
       name, the remote host, login time, idle time, JCPU, PCPU, and the  com-
       mand line of their current process.

       The  JCPU  time  is the time used by all processes attached to the tty.
       It does not include past background jobs, but  does  include  currently
       running background jobs.
-----Info: (*manpages*)w, 85 lines --Top----------------------------------------
No menu item 'w' in node '(dir)Top'
```

Description of some flags

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

more is a filter for paging through text one screenful at a time. less is a program similar to more, but has many more features. less does not have to read the entire input file before starting, so with large input files it starts faster than text editors like vi.

Less command

7. Describe in plans that you are working on laboratory work 1. Tip: You should

read the documentation for the finger command.

```
root@anastasiia-VB:/home/anastasiia# echo 'Working on laboratory work!' > ~/.pla
n
root@anastasiia-VB:/home/anastasiia# finger anastasiia
Login: anastasiia                       Name: Anastasiia
Directory: /home/anastasiia             Shell: /bin/bash
Office: 132, +380475849384              Home Phone: +380576859495
On since Wed Nov 17 16:57 (EET) on :1 from :1 (messages off)
No mail.
No Plan.

Login: root                             Name: Anastasiia
Directory: /root                        Shell: /bin/bash
Office: 132, +380678949729              Home Phone: +380678949729
Never logged in.
No mail.
Plan:
Working on laboratory work!
root@anastasiia-VB:/home/anastasiia#
```

8. List the contents of the home directory using the ls command, define its files and directories.

ls command list information about the FILEs.

```
                    root@anastasiia-VB: /home/anastasiia

File  Edit  View  Search  Terminal  Help
root@anastasiia-VB:/home/anastasiia# ls -l
total 44
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Desktop
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Documents
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Downloads
-rw-r--r-- 1 anastasiia anastasiia 8980 лис 16 15:40 examples.desktop
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Music
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Pictures
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Public
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Templates
drwxr-xr-x 2 anastasiia anastasiia 4096 лис 16 15:51 Videos
root@anastasiia-VB:/home/anastasiia#
```