Task1.Part1

1) Log in to the system as root.

```
Ubuntu 14.04.3 LTS CsnKhai tty1

CsnKhai login: student
Password:
Last login: Tue Feb 15 15:38:02 UTC 2022 from 192.168.0.106 on pts/0
Welcome to Ubuntu 14.04.3 LTS (GNU/Linux 3.13.0-63-generic i686)

 * Documentation:  https://help.ubuntu.com/
New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

student@CsnKhai:~$ sudo su
[sudo] password for student:
root@CsnKhai:/home/student# _
```

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

```
Ubuntu 14.04.3 LTS CsnKhai tty1

CsnKhai login: student
Password:
Last login: Tue Feb 15 15:38:02 UTC 2022 from 192.168.0.106 on pts/0
Welcome to Ubuntu 14.04.3 LTS (GNU/Linux 3.13.0-63-generic i686)

 * Documentation:  https://help.ubuntu.com/
New release '16.04.7 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

student@CsnKhai:~$ sudo su
[sudo] password for student:
root@CsnKhai:/home/student# passwd
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
root@CsnKhai:/home/student#
```

passwd command changes /etc/shadow file

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?

```
Retype new UNIX password:
passwd: password updated successfully
root@CsnKhai:/home/student# /etc/passwd
bash: /etc/passwd: Permission denied
root@CsnKhai:/home/student# cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologi
n
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
libuuid:x:100:101::/var/lib/libuuid:
syslog:x:101:104::/home/syslog:/bin/false
messagebus:x:102:105::/var/run/dbus:/bin/false
sshd:x:103:65534::/var/run/sshd:/usr/sbin/nologin
student:x:1000:1000:Student KhAI,,,:/home/student:/bin/bash
root@CsnKhai:/home/student#
```

additional information: username, password, user id, group id, user id info, home directory, shell

4) Change personal information about yourself.

```
root@CsnKhai:/home/student# chfn student
Changing the user information for student
Enter the new value, or press ENTER for the default
        Full Name [Student KhAI]: Yaroslav
        Room Number []: 404
        Work Phone []: 999-000
        Home Phone []: 999-000
        Other []: brief information
root@CsnKhai:/home/student#
```

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.

help command

```
root@CsnKhai:/home/student# chfn student
Changing the user information for student
Enter the new value, or press ENTER for the default
        Full Name [Student KhAI]: Yaroslav
        Room Number []: 404
        Work Phone []: 999-000
        Home Phone []: 999-000
        Other []: brief information
root@CsnKhai:/home/student# chfn --help
Usage: chfn [options] [LOGIN]

Options:
  -f, --full-name FULL_NAME    change user's full name
  -h, --home-phone HOME_PHONE  change user's home phone number
  -o, --other OTHER_INFO       change user's other GECOS information
  -r, --room ROOM_NUMBER       change user's room number
  -R, --root CHROOT_DIR        directory to chroot into
  -u, --help                   display this help message and exit
  -w, --work-phone WORK_PHONE  change user's office phone number

root@CsnKhai:/home/student# _
```

man command

```
LAST,LASTB(1)          Linux System Administrator's Manual          LAST,LASTB(1)

NAME
       last, lastb - show listing of last logged in users

SYNOPSIS
       last  [-R] [-num] [ -n num ] [-adFiowx] [ -f file ] [ -t YYYYMMDDHHMMSS
       ] [name...]  [tty...]
       lastb [-R] [-num] [ -n num ] [ -f file ] [-adFiowx] [name...]  [tty...]

DESCRIPTION
       Last searches back through the file /var/log/wtmp (or the  file  desig-
       nated  by  the -f flag) and displays a list of all users logged in (and
       out) since that file was created.  Names of  users  and  tty's  can  be
       given,  in  which  case  last will show only those entries matching the
       arguments.  Names of ttys can be abbreviated, thus last 0 is  the  same
       as last tty0.

       When last catches a SIGINT signal (generated by the interrupt key, usu-
       ally control-C) or a SIGQUIT signal (generated by the quit key, usually
       control-\), last will show how far it has searched through the file; in
       the case of the SIGINT signal last will then terminate.

       The pseudo user reboot logs in each time the system is rebooted.   Thus
       last  reboot will show a log of all reboots since the log file was cre-
       ated.

       Lastb is the same as last, except that by default it shows a log of the
       file /var/log/btmp, which contains all the bad login attempts.
Manual page last(1) line 1/87 45% (press h for help or q to quit)
```

```
        -i      This  option is like -d in that it displays the IP number of the
                remote host, but it displays the IP number  in  numbers-and-dots
                notation.

        -o      Read  an  old-type  wtmp  file  (written by linux-libc5 applica-
                tions).

        -w      Display full user and domain names in the output.

        -x      Display the system shutdown entries and run level changes.

NOTES
        The files wtmp and btmp might not be found. The system only logs infor-
        mation  in  these files if they are present. This is a local configura-
        tion issue. If you want the files to be used, they can be created  with
        a simple touch(1) command (for example, touch /var/log/wtmp).

FILES
        /var/log/wtmp
        /var/log/btmp

AUTHOR
        Miquel van Smoorenburg, miquels@cistron.nl

SEE ALSO
        shutdown(8), login(1), init(8)

                              Jul 31, 2004                        LAST,LASTB(1)
 Manual page last(1) line 57/87 (END) (press h for help or q to quit)
```

info command

```
        {yp,nis,}domainname {nisdomain|-F file}  set NIS domain name (from file)
        {yp,nis,}domainname                      display NIS domain name

        dnsdomainname                            display dns domain name

        hostname -V|--version|-h|--help          print info and exit

Program name:
        {yp,nis,}domainname=hostname -y
        dnsdomainname=hostname -d

Program options:
    -a, --alias           alias names
    -A, --all-fqdns       all long host names (FQDNs)
    -b, --boot            set default hostname if none available
    -d, --domain          DNS domain name
    -f, --fqdn, --long    long host name (FQDN)
    -F, --file            read host name or NIS domain name from given file
    -i, --ip-address      addresses for the host name
    -I, --all-ip-addresses all addresses for the host
    -s, --short           short host name
    -y, --yp, --nis       NIS/YP domain name

Description:
    This command can get or set the host name or the NIS domain name. You can
    also get the DNS domain or the FQDN (fully qualified domain name). You can
    Unless you are using bind or NIS for host lookups you can change the
    FQDN (Fully Qualified Domain Name) and the DNS domain name (which is
    part of the FQDN) in the /etc/hosts file.
root@CsnKhai:/home/student# _
```

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

less command


```
                   SUMMARY OF LESS COMMANDS

      Commands marked with * may be preceded by a number, N.
      Notes in parentheses indicate the behavior if N is given.
      A key preceded by a caret indicates the Ctrl key; thus ^K is ctrl-K.

  h  H                    Display this help.
  q  :q  Q  :Q  ZZ     Exit.
 ---------------------------------------------------------------------

                         MOVING

  e  ^E  j  ^N  CR  *  Forward  one line   (or N lines).
  y  ^Y  k  ^K  ^P  *  Backward one line   (or N lines).
  f  ^F  ^V  SPACE  *  Forward  one window (or N lines).
  b  ^B  ESC-v      *  Backward one window (or N lines).
  z                 *  Forward  one window (and set window to N).
  w                 *  Backward one window (and set window to N).
  ESC-SPACE         *  Forward  one window, but don't stop at end-of-file.
  d  ^D             *  Forward  one half-window (and set half-window to N).
  u  ^U             *  Backward one half-window (and set half-window to N).
  ESC-)  RightArrow *  Left  one half screen width (or N positions).
  ESC-(  LeftArrow  *  Right one half screen width (or N positions).
  F                    Forward forever; like "tail -f".
  r  ^R  ^L            Repaint screen.
  R                    Repaint screen, discarding buffered input.
         ------------------------------------------------
         Default "window" is the screen height.
 HELP -- Press RETURN for more, or q when done
```



```
".bash_history" may be a binary file.  See it anyway?
sudo su
top
sudo update.rc ssh defaults
sudo update-rc.d ssh defaults
sudo reboot
sudo shutdown -h now
^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@^@@exit
w
ssh-keygen
ssh student@192.168.00.106
ssh-copy-id student@192.168.00.106
exit
ssh
ls
ssh student@192.168.00.106
exit
w
exit
ssh student@192.168.00.106
exit
ssh student@192.168.00.106
w
exit
ssh student@192.168.00.106
w
su
sudo su
exit
.bash_history (file 1 of 3) (END) - Next: .bash_logout
```

more command

more -10 command (shows first n lines in the file)

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

```
FINGER(1)                  BSD General Commands Manual                  FINGER(1)

NAME
     finger — user information lookup program

SYNOPSIS
     finger [-lmsp] [user ...] [user@host ...]

DESCRIPTION
     The finger displays information about the system users.

     Options are:

     -s    Finger displays the user's login name, real name, terminal name and
           write status (as a ``*'' after the terminal name if write permis-
           sion is denied), idle time, login time, office location and office
           phone number.

           Login time is displayed as month, day, hours and minutes, unless
           more than six months ago, in which case the year is displayed
           rather than the hours and minutes.

           Unknown devices as well as nonexistent idle and login times are
           displayed as single asterisks.

     -l    Produces a multi-line format displaying all of the information
           described for the -s option as well as the user's home directory,
           home phone number, login shell, mail status, and the contents of
           the files ".plan", ".project", ".pgpkey" and ".forward" from the
 Manual page finger(1) line 1 (press h for help or q to quit)
```

```
     them.

     If no arguments are specified, finger will print an entry for each user
     currently logged into the system.

     Finger may be used to look up users on a remote machine.  The format is
     to specify a user as "user@host", or "@host", where the default output
     format for the former is the -l style, and the default output format for
     the latter is the -s style.  The -l option is the only option that may be
     passed to a remote machine.

     If standard output is a socket, finger will emit a carriage return (^M)
     before every linefeed (^J). This is for processing remote finger requests
     when invoked by fingerd(8).

FILES
     ~/.nofinger         If finger finds this file in a user's home directory, it
                         will, for finger requests originating outside the local
                         host, firmly deny the existence of that user.  For this
                         to work, the finger program, as started by fingerd(8),
                         must be able to see the .nofinger file. This generally
                         means that the home directory containing the file must
                         have the other-users-execute bit set (o+x). See
                         chmod(1).  If you use this feature for privacy, please
                         test it with ``finger @localhost'' before relying on it,
                         just in case.
root@CsnKhai:/home/student# finger -s student
Login      Name      Tty       Idle  Login Time    Office      Office Phone
student    Yaroslav  *tty1           Feb 15 15:48  404         999-000
root@CsnKhai:/home/student#
```

8) * 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.

```
root@CsnKhai:/home# ls
student
root@CsnKhai:/home# ls -l
total 4
drwxr-xr-x 4 student student 4096 Feb 15 15:22 student
root@CsnKhai:/home# ls -al
total 12
drwxr-xr-x  3 root    root    4096 Sep 15  2015 .
drwxr-xr-x 21 root    root    4096 Sep 15  2015 ..
drwxr-xr-x  4 student student 4096 Feb 15 15:22 student
root@CsnKhai:/home# _
```