

Отчёт по лабораторной работе №6

**Основы интерфейса взаимодействия пользователя с системой Unix на
уровне командной строки**

Седохин Даниил Алексеевич

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1 Цель работы

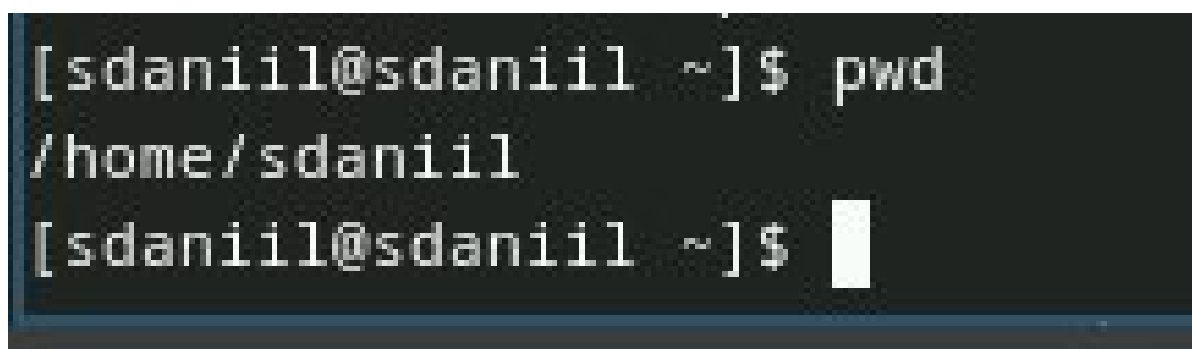
Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

2 Задание

Приобрести практические навыки работы пользователя с системой посредством командной строки

3 Выполнение лабораторной работы

- 1) Определим полное имя домашнего каталога. (рис. 3.1).

A terminal window with a dark background and light gray text. The prompt is [sdaniil@sdaniil ~]\$ and the command entered is pwd. The output is /home/sdaniil. The prompt is repeated on the next line with a white cursor block.

```
[sdaniil@sdaniil ~]$ pwd
/home/sdaniil
[sdaniil@sdaniil ~]$
```

Рис. 3.1: Определение имени домашнего каталога

- 2) Перейдем в каталог /tmp

Выведем на экран содержимое каталога /tmp. Для этого используйте команду ls с различными опциями (рис. 3.2 3.3).

```

[sdaniil@sdaniil ~]$ cd /tmp
[sdaniil@sdaniil tmp]$ ls
sddm-auth-1b042dc6-40d2-4e74-81b1-92da33ce406e
sddm--Slpplp
systemd-private-414f1c2cf627444aade704e67034e6e9-chronyd.service-zkuzHZ
systemd-private-414f1c2cf627444aade704e67034e6e9-dbus-broker.service-hcqUaN
systemd-private-414f1c2cf627444aade704e67034e6e9-ModemManager.service-OnlSkN
systemd-private-414f1c2cf627444aade704e67034e6e9-polkit.service-QvAY48
systemd-private-414f1c2cf627444aade704e67034e6e9-power-profiles-daemon.service-
Kdfi80
systemd-private-414f1c2cf627444aade704e67034e6e9-rtkit-daemon.service-WnHkaW
systemd-private-414f1c2cf627444aade704e67034e6e9-switcheroo-control.service-ytr
oKI
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-logind.service-C8Vql0
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-oomd.service-LXmqju
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-resolved.service-EmG2d
L
systemd-private-414f1c2cf627444aade704e67034e6e9-upower.service-JpVCWW
Temp-ae95f008-belf-4e18-8ee1-004a264410db
vboxguest-Module.symvers
[sdaniil@sdaniil tmp]$ ls -a
.
..
.font-unix
.ICE-unix
sddm-auth-1b042dc6-40d2-4e74-81b1-92da33ce406e
sddm--Slpplp
systemd-private-414f1c2cf627444aade704e67034e6e9-chronyd.service-zkuzHZ
systemd-private-414f1c2cf627444aade704e67034e6e9-dbus-broker.service-hcqUaN
systemd-private-414f1c2cf627444aade704e67034e6e9-ModemManager.service-OnlSkN
systemd-private-414f1c2cf627444aade704e67034e6e9-polkit.service-QvAY48
systemd-private-414f1c2cf627444aade704e67034e6e9-power-profiles-daemon.service-
Kdfi80
systemd-private-414f1c2cf627444aade704e67034e6e9-rtkit-daemon.service-WnHkaW
systemd-private-414f1c2cf627444aade704e67034e6e9-switcheroo-control.service-ytr
oKI
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-logind.service-C8Vql0
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-oomd.service-LXmqju
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-resolved.service-EmG2
L
systemd-private-414f1c2cf627444aade704e67034e6e9-upower.service-JpVCWW

```

Рис. 3.2: Вывод на экран содержимого каталога /tmp

```

[sdaniil@sdaniil tmp]$ ls -l
итого 28
srwxr-xr-x. 1 root    root          0 map 16 16:53 sddm-auth-1b042dc6-40d2-4e74-8
1b1-92da33ce406e
srwx-----, 1 sddm    sddm          0 map 16 16:53 sddm--Slpplp
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-chronyd.service-zkuzHZ
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-dbus-broker.service-hcqUaN
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-ModemManager.service-On1skN
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-polkit.service-QvAY48
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-power-profiles-daemon.service-Kdfi80
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-rtkit-daemon.service-WnHkaW
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-switcheroo-control.service-ytroKI
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-systemd-logind.service-C8Vq10
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-systemd-oemd.service-LXmqju
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-systemd-resolved.service-EmG2dL
drwx-----, 3 root    root          60 map 16 16:52 systemd-private-414f1c2cf62744
4aade704e67034e6e9-upower.service-JpVCWW
drwx-----, 2 sdaniil sdaniil      40 map 16 16:56 Temp-ae95f008-be1f-4e18-8ee1-0
04a264410db
-rw-r--r--. 1 root    root        28086 map 16 16:53 vboxguest-Module.symvers
[sdaniil@sdaniil tmp]$ ls -f
.
..
.X11-unix
.ICE-unix
.XIM-unix
.font-unix
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-oemd.service-LXmqju
systemd-private-414f1c2cf627444aade704e67034e6e9-systemd-resolved.service-EmG2d
L
systemd-private-414f1c2cf627444aade704e67034e6e9-dbus-broker.service-hcqUaN

```

Рис. 3.3: Вывод на экран содержимого каталога /tmp

3) Определим, есть ли в каталоге /var/spool подкаталог с именем cron? (рис. 3.4).


```
[sdaniil@sdaniil tmp]$ ls /var/spool
abrt  abrt-upload  anacron  at  cron  cups  lpd  mail  plymouth
[sdaniil@sdaniil tmp]$
```

Рис. 3.4: /var/spool

- 4) Перейдем в свой домашний каталог и выведем на экран его содержимое.
(рис. 3.5)

```
[sdaniil@sdaniil tmp]$ cd ~
[sdaniil@sdaniil ~]$ ls -l
итого 20
drwxr-xr-x. 1 sdaniil sdaniil   34 мар 16 19:04 Downloads
drwxr-xr-x. 1 sdaniil sdaniil  166 мар  5 23:02 git-extended
drwxr-xr-x. 1 sdaniil sdaniil   96 мар  8 15:44 lab.pres
drwxr-xr-x. 1 sdaniil sdaniil   60 мар  8 16:07 lab.reprot
-rw-r--r--. 1 sdaniil sdaniil 18657 мар 16 18:03 LICENSE
drwxr-xr-x. 1 sdaniil sdaniil   14 мар  2 03:19 media
drwxr-xr-x. 1 sdaniil sdaniil   10 мар  2 03:19 sf_work
drwxr-xr-x. 1 sdaniil sdaniil   10 мар  2 04:52 work
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 Видео
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 Документы
drwxr-xr-x. 1 sdaniil sdaniil 51018 мар  2 20:08 Загрузки
drwxr-xr-x. 1 sdaniil sdaniil   936 мар 16 17:16 Изображения
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 Музыка
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 Общедоступные
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 'Рабочий стол'
drwxr-xr-x. 1 sdaniil sdaniil    0 мар  2 00:08 Шаблоны
[sdaniil@sdaniil ~]$
```

Рис. 3.5: Вывод домашнего каталога

- 5) В домашнем каталоге создадим новый каталог с именем newdir. В каталоге ~/newdir создадим новый каталог с именем morefun. (рис. 3.6).

```
[sdaniil@sdaniil ~]$ mkdir newdir
[sdaniil@sdaniil ~]$ mkdir mewdir/morefun
mkdir: невозможно создать каталог «mewdir/morefun»: Нет такого файла или каталога
[sdaniil@sdaniil ~]$ mkdir newdir/morefun
[sdaniil@sdaniil ~]$
```

Рис. 3.6: Новый каталог newdir и подкаталог

- 6) В домашнем каталоге создадим одной командой три новых каталога с именами letters, memos, misk. Затем удалим эти каталоги одной командой. (рис. 3.7).

```
[sdaniil@sdaniil ~]$ mkdir letters memos misk
[sdaniil@sdaniil ~]$ rmdir letters memos misk
```

Рис. 3.7: Создание и удаление новых каталогов

- 7) Попробуем удалить ранее созданный каталог ~/newdir командой rm. Удалим каталог ~/newdir/morefun из домашнего каталога. (рис. 3.8).

```
[sdaniil@sdaniil ~]$ rm newdir
rm: невозможно удалить 'newdir': Это каталог
[sdaniil@sdaniil ~]$ rmdir newdir/morefun
[sdaniil@sdaniil ~]$
```

Рис. 3.8: Удаление каталога newdir

- 8) С помощью команды man определим, какую опцию команды ls нужно использовать для просмотра содержимое не только указанного каталога, но и подкаталогов, входящих в него. (рис. 3.9 3.10 3.11).

```

-q, --hide-control-chars
    print ? instead of nongraphic characters

--show-control-chars
    show nongraphic characters as-is (the default, unless program
    is 'ls' and output is a terminal)

-Q, --quote-name
    enclose entry names in double quotes

--quoting-style=WORD
    use quoting style WORD for entry names: literal, locale, shell,
    shell-always, shell-escape, shell-escape-always, c, escape
    (overrides QUOTING_STYLE environment variable)

-r, --reverse
    reverse order while sorting

-R, --recursive
    list subdirectories recursively

-s, --size
    print the allocated size of each file, in blocks

-S      sort by file size, largest first

--sort=WORD
    sort by WORD instead of name: none (-U), size (-S), time (-t),
    version (-v), extension (-X), width

--time=WORD
    select which timestamp used to display or sort; access time
    (-u): atime, access, use; metadata change time (-c): ctime,
    status; modified time (default): mtime, modification; birth
    time: birth, creation;

    with -l, WORD determines which time to show; with --sort=time,
    sort by WORD (newest first)

--time-style=TIME_STYLE
    time/date format with -l; see TIME_STYLE below

```

```
Manual page ls(1) line 127 (press h for help or q to quit)
```

Рис. 3.9: Работа с командой man

```

        print the allocated size of each file, in blocks

-S      sort by file size, largest first

--sort=WORD
        sort by WORD instead of name: none (-U), size (-S), time (-t),
        version (-v), extension (-X), width

--time=WORD
        select which timestamp used to display or sort; access time
        (-u): atime, access, use; metadata change time (-c): ctime,
        status; modified time (default): mtime, modification; birth
        time: birth, creation;

        with -l, WORD determines which time to show; with --sort=time,
        sort by WORD (newest first)

--time-style=TIME_STYLE
        time/date format with -l; see TIME_STYLE below

-t      sort by time, newest first; see --time

-T, --tabsize=COLS
        assume tab stops at each COLS instead of 8

-u      with -lt: sort by, and show, access time; with -l: show access
        time and sort by name; otherwise: sort by access time, newest
        first

-U      do not sort; list entries in directory order

-v      natural sort of (version) numbers within text

-w, --width=COLS
        set output width to COLS. 0 means no limit

-x      list entries by lines instead of by columns

-X      sort alphabetically by entry extension

-Z, --context
        print any security context of each file

```

```
Manual page ls(1) line 150/249 75% (press h for help or q to quit)
```

Рис. 3.10: Работа с командой man

```
    fault), slash (-p), file-type (--file-type), classify (-F)

-i, --inode
    print the index number of each file

-I, --ignore=PATTERN
    do not list implied entries matching shell PATTERN

-k, --kibibytes
    default to 1024-byte blocks for file system usage; used only
    with -s and per directory totals

-l      use a long listing format

-L, --dereference
    when showing file information for a symbolic link, show infor-
    mation for the file the link references rather than for the
    link itself

-m      fill width with a comma separated list of entries

-n, --numeric-uid-gid
    like -l, but list numeric user and group IDs

-N, --literal
    print entry names without quoting

-o      like -l, but do not list group information

-p, --indicator-style=slash
    append / indicator to directories

-q, --hide-control-chars
    print ? instead of nongraphic characters

--show-control-chars
    show nongraphic characters as-is (the default, unless program
    is 'ls' and output is a terminal)

-Q, --quote-name
    enclose entry names in double quotes

--quoting-style=WORD

Manual page ls(1) line 96/249 53% (press h for help or q to quit)
```

Рис. 3.11: Работа с командой man

9) С помощью команды man определии набор опций команды ls, позволяю-

ший отсортировать по времени последнего изменения выводимый список содержимого каталога с развёрнутым описанием файлов (рис. 3.12).

```
[sdaniil@sdaniil ~]$ ls -tl
итого 20
drwxr-xr-x. 1 sdaniil sdaniil    0 map 16 19:12 newdir
drwxr-xr-x. 1 sdaniil sdaniil   34 map 16 19:04 Downloads
-rw-r--r--. 1 sdaniil sdaniil 18657 map 16 18:03 LICENSE
drwxr-xr-x. 1 sdaniil sdaniil   936 map 16 17:16 Изображения
drwxr-xr-x. 1 sdaniil sdaniil    60 map  8 16:07 lab.reprot
drwxr-xr-x. 1 sdaniil sdaniil    96 map  8 15:44 lab.pres
drwxr-xr-x. 1 sdaniil sdaniil   166 map  5 23:02 git-extended
drwxr-xr-x. 1 sdaniil sdaniil 51018 map  2 20:08 Загрузки
drwxr-xr-x. 1 sdaniil sdaniil    10 map  2 04:52 work
drwxr-xr-x. 1 sdaniil sdaniil    14 map  2 03:19 media
drwxr-xr-x. 1 sdaniil sdaniil    10 map  2 03:19 sf_work
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 Видео
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 Документы
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 Музыка
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 Общедоступные
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 'Рабочий стол'
drwxr-xr-x. 1 sdaniil sdaniil    0 map  2 00:08 Шаблоны
[sdaniil@sdaniil ~]$
```

Рис. 3.12: Сортировка по времени последнего изменения

- 10) Используем команду `man` для просмотра описания следующих команд: `cd`, `pwd`, `mkdir`, `rmdir`, `rm`. (рис. 3.13). (рис. 3.14). (рис. 3.15). (рис. 3.16). (рис. 3.17).

NAME

`:`, `..`, `[`, `alias`, `bg`, `bind`, `break`, `builtin`, `caller`, `cd`, `command`, `comp-gen`, `complete`, `compgen`, `continue`, `declare`, `dirs`, `disown`, `echo`, `enable`, `eval`, `exec`, `exit`, `export`, `false`, `fc`, `fg`, `getopts`, `hash`, `help`, `history`, `jobs`, `kill`, `let`, `local`, `logout`, `mapfile`, `popd`, `printf`, `pushd`, `pwd`, `read`, `readarray`, `readonly`, `return`, `set`, `shift`, `shopt`, `source`, `suspend`, `test`, `times`, `trap`, `true`, `type`, `typeset`, `ulimit`, `umask`, `unalias`, `unset`, `wait` - bash built-in commands, see **bash(1)**

BASH BUILTIN COMMANDS

Unless otherwise noted, each builtin command documented in this section as accepting options preceded by `-` accepts `--` to signify the end of the options. The `:`, **true**, **false**, and **test**/`[` builtins do not accept options and do not treat `--` specially. The **exit**, **logout**, **return**, **break**, **continue**, **let**, and **shift** builtins accept and process arguments beginning with `-` without requiring `--`. Other builtins that accept arguments but are not specified as accepting options interpret arguments beginning with `-` as invalid options and require `--` to prevent this interpretation.

: [arguments]

No effect; the command does nothing beyond expanding arguments and performing any specified redirections. The return status is zero.

. filename [arguments]

source filename [arguments]

Read and execute commands from filename in the current shell environment and return the exit status of the last command executed from filename. If filename does not contain a slash, filenames in **PATH** are used to find the directory containing filename, but filename does not need to be executable. The file searched for in **PATH** need not be executable. When **bash** is not in **posix mode**, it searches the current directory if no file is found in **PATH**. If the **sourcepath** option to the **shopt** builtin command is turned off, the **PATH** is not searched. If any arguments are supplied, they become the positional parameters when filename is executed. Otherwise the positional parameters are unchanged. If the **-T** option is enabled, **.** inherits any trap on **DEBUG**; if it is not, any **DEBUG** trap string is saved and restored around the call to **.**, and **.** unsets the **DEBUG** trap while it executes. If **-T** is not set, and the sourced file

Manual page cd(1) line 1 (press h for help or q to quit)

Рис. 3.13: cd

```
PWD(1)                                User Commands                                PWD(1)

NAME
    pwd - print name of current/working directory

SYNOPSIS
    pwd [OPTION]...

DESCRIPTION
    Print the full filename of the current working directory.

    -L, --logical
        use PWD from environment, even if it contains symlinks

    -P, --physical
        avoid all symlinks

    --help display this help and exit

    --version
        output version information and exit

    If no option is specified, -P is assumed.

    NOTE: your shell may have its own version of pwd, which usually super-
    sedes the version described here. Please refer to your shell's docu-
    mentation for details about the options it supports.

AUTHOR
    Written by Jim Meyering.

REPORTING BUGS
    GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
    Report any translation bugs to <https://translationproject.org/team/>

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SEE ALSO
    getcwd(3)

Manual page pwd(1) line 1 (press h for help or q to quit)
```

Рис. 3.14: pwd


```
MKDIR(1)                                User Commands                                MKDIR(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [OPTION]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

    Mandatory arguments to long options are mandatory for short options
    too.

    -m, --mode=MODE
        set file mode (as in chmod), not a=rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed, with
        their file modes unaffected by any -m option.

    -v, --verbose
        print a message for each created directory

    -Z      set SELinux security context of each created directory to the
            default type

    --context[=CTX]
        like -Z, or if CTX is specified then set the SELinux or SMACK
        security context to CTX

    --help display this help and exit

    --version
        output version information and exit

AUTHOR
    Written by David MacKenzie.

REPORTING BUGS
    GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
    Report any translation bugs to <https://translationproject.org/team/>

Manual page mkdir(1) line 1 (press h for help or q to quit)
```

Рис. 3.15: mkdir

```
RMDIR(1)                                User Commands                                RMDIR(1)

NAME
    rmdir - remove empty directories

SYNOPSIS
    rmdir [OPTION]... DIRECTORY...

DESCRIPTION
    Remove the DIRECTORY(ies), if they are empty.

    --ignore-fail-on-non-empty
        ignore each failure to remove a non-empty directory

    -p, --parents
        remove DIRECTORY and its ancestors; e.g., 'rmdir -p a/b' is
        similar to 'rmdir a/b a'

    -v, --verbose
        output a diagnostic for every directory processed

    --help display this help and exit

    --version
        output version information and exit

AUTHOR
    Written by David MacKenzie.

REPORTING BUGS
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    There is NO WARRANTY, to the extent permitted by law.

SEE ALSO
    rmdir(2)

    Full documentation <https://www.gnu.org/software/coreutils/rmdir>
    Manual page rmdir(1) line 1 (press h for help or q to quit)
```

Рис. 3.16: rmdir

```
RM(1)                                User Commands                                RM(1)

NAME
  rm - remove files or directories

SYNOPSIS
  rm [OPTION]... [FILE]...

DESCRIPTION
  This manual page documents the GNU version of rm. rm removes each
  specified file. By default, it does not remove directories.

  If the -I or --interactive=once option is given, and there are more
  than three files or the -r, -R, or --recursive are given, then rm
  prompts the user for whether to proceed with the entire operation. If
  the response is not affirmative, the entire command is aborted.

  Otherwise, if a file is unwritable, standard input is a terminal, and
  the -f or --force option is not given, or the -i or --interactive=al-
ways option is given, rm prompts the user for whether to remove the
  file. If the response is not affirmative, the file is skipped.

OPTIONS
  Remove (unlink) the FILE(s).

  -f, --force
    ignore nonexistent files and arguments, never prompt

  -i
    prompt before every removal

  -I
    prompt once before removing more than three files, or when re-
    moving recursively; less intrusive than -i, while still giving
    protection against most mistakes

  --interactive[=WHEN]
    prompt according to WHEN: never, once (-I), or always (-i);
    without WHEN, prompt always

  --one-file-system
    when removing a hierarchy recursively, skip any directory that
    is on a file system different from that of the corresponding
    command line argument

Manual page rm(1) line 1 (press h for help or q to quit)
```

Рис. 3.17: rm

- 11) Используя информацию, полученную при помощи команды **history**, выполним модификацию и исполнение нескольких команд из буфера ко-

манд. (рис. 3.18 3.19).

```
foot
ate
49 chezmoi init git@github.com:Daniil2234/dotfiles.git
50 ls bin
51 sudo cp ./bin/chezmoi usr/local/bin
52 sudo cp ./bin/chezmoi /usr/local/bin
53 chezmoi init git@github.com:Daniil2234/dotfiles.git
54 chezmoi diff
55 chezmoi apply -v
56 chezmoi update
57 chezmoi git pull -- --autostash --rebase && chezmoi diff
58 chezmoi apply
59 nano ~/.config/chezmoi/chezmoi.toml
60 git add .
61 git - commit
62 git --commit
63 git add .
64 git commit
65 git push
66 cd
67 pwd
68 cd /tmp
69 ls
70 ls -a
71 ls -l
72 ls -f
73 ls /var/spool
74 cd ~
75 ls -l
76 mkdir newdir
77 mkdir mewdir/morefun
78 mkdir newdir/morefun
79 mkdir letters memos misk
80 rmdir letters memos misk
81 rm newdir
82 rmdir newdir/morefun
83 man ls
84 ls -tl
85 man cd
86 man pwd
87 man mkdir
88 man rmdir
89 man rm
90 history
[sdaniil@sdaniil ~]$
```

Рис. 3.18: Команда history

```

[sdaniil@sdaniil ~]$ !85:s/morefun/
bash: :s/morefun/: substitution failed
[sdaniil@sdaniil ~]$ !71:l/a
bash: l: unrecognized history modifier
[sdaniil@sdaniil ~]$ !71:s/l/a
as -l
as: двусмысленный параметр «-l»; возможные варианты: '-listing-lhs-width' '-listing-lhs-width2' '-listing-rhs-width' '-listing-cont-lines'
[sdaniil@sdaniil ~]$ !71:s/-l/-a
ls -a
.          newdir
..         .npm
.asy       .password-store
.bash_history sf_work
.bash_logout .ssh
.bash_profile .vboxclient-clipboard-tty2-control1.pid
.bashrc      .vboxclient-draganddrop-tty2-control1.pid
.bashrc.d    .vboxclient-hostversion-tty2-control1.pid
.cache       .vboxclient-seamless-tty2-control1.pid
.config      .vimrc
Downloads    .wget-hsts
.gitconfig   work
git-extended .XCompose
.gnupg       Видео
.gtkrc-2.0   Документы
lab.pres     Загрузки
lab.reprot   Изображения
LICENSE      Музыка
.local       Общедоступные
media        'Рабочий стол'
.mozilla     Шаблоны
[sdaniil@sdaniil ~]$

```

Рис. 3.19: Выполнение модификаций

4 Выводы

Я приобрел практические навыки взаимодействия пользователя с системой посредством командной строки.