

Лабораторная работа №4

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Цель работы:

Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

ХОД РАБОТЫ

1.

С помощью команды `pwd` я определила полное имя домашнего каталога (рис.1).

2.

Далее я перешла в каталог `/tmp`, вывела на экран его содержимое (рис.1), а также попробовала использовать различные опции `ls` (рис.2-5).

```
[asmaslova@fedora report]$ cd
[asmaslova@fedora ~]$ pwd
/home/asmaslova
[asmaslova@fedora ~]$ ls
Desktop Documents Downloads Music Pictures Public stack.yaml Templates Videos work
[asmaslova@fedora ~]$ cd /tmp
[asmaslova@fedora tmp]$ ls
hsperfdata_asmaslova
mozilla_asmaslova0
systemd-private-6368e137ef974f2ea2213319eb667d8e-chrond.service-Am4uW0
systemd-private-6368e137ef974f2ea2213319eb667d8e-colord.service-mEfdeq
systemd-private-6368e137ef974f2ea2213319eb667d8e-dbus-broker.service-bmpYUt
systemd-private-6368e137ef974f2ea2213319eb667d8e-geoclue.service-uqrV6d
systemd-private-6368e137ef974f2ea2213319eb667d8e-low-memory-monitor.service-LSNXxz
systemd-private-6368e137ef974f2ea2213319eb667d8e-ModemManager.service-RbflpI
systemd-private-6368e137ef974f2ea2213319eb667d8e-power-profiles-daemon.service-N2pZ9s
systemd-private-6368e137ef974f2ea2213319eb667d8e-rtkit-daemon.service-r3RgBq
systemd-private-6368e137ef974f2ea2213319eb667d8e-switcheroo-control.service-URp4ze
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-logind.service-eLQMk3
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-oomd.service-ADQ9Vk
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-resolved.service-L0Qo3o
systemd-private-6368e137ef974f2ea2213319eb667d8e-upower.service-Ftxbak
Temp-22184465-2167-4230-801b-79603d9187fc
tracker-extract-3-files.1000
```

рис.1

рис.1 Результат работы функции *pwd* и
переход в каталог *tmp*

```
[asmaslova@fedora tmp]$ ls -a
.
..
.font-unix
haperfdata_asmaslova
.TCE-unix
mozilla_asmaslova0
systemd-private-6368e137ef974f2ea2213319eb667d8e-chrond.service-Am4uN0
systemd-private-6368e137ef974f2ea2213319eb667d8e-colord.service-mEfdq
systemd-private-6368e137ef974f2ea2213319eb667d8e-dbus-broker.service-bmpYUt
systemd-private-6368e137ef974f2ea2213319eb667d8e-geoclue.service-uqrV6d
systemd-private-6368e137ef974f2ea2213319eb667d8e-low-memory-monitor.service-LSNXxz
systemd-private-6368e137ef974f2ea2213319eb667d8e-ModemManager.service-RbflpI
systemd-private-6368e137ef974f2ea2213319eb667d8e-power-profiles-daemon.service-M2pZ9s
systemd-private-6368e137ef974f2ea2213319eb667d8e-rtkit-daemon.service-r3RgBq
systemd-private-6368e137ef974f2ea2213319eb667d8e-switcheroo-control.service-URp4ze
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-logind.service-eLQHK3
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-oomd.service-ADQ9Vk
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-resolved.service-L0Qo3o
systemd-private-6368e137ef974f2ea2213319eb667d8e-upower.service-Ftxbak
Temp-22184465-2167-4230-801b-79603d9187fc
.Test-unix
tracker-extract-3-files.1000
.X0-lock
.X1024-lock
.X1025-lock
.X11-unix
.X1-lock
.XTM-unix
[asmaslova@fedora tmp]$
```

рис.2

рис.2 Выполнение функции $/s$ с опцией $-a$

```
[asmaslova@fedora tmp]$ ls -F
hsperfdata_asmaslova/
mozilla_asmaslova0/
systemd-private-6368e137ef974f2ea2213319eb667d8e-chronyd.service-Am4uW6/
systemd-private-6368e137ef974f2ea2213319eb667d8e-colord.service-mEfdeq/
systemd-private-6368e137ef974f2ea2213319eb667d8e-dbus-broker.service-bmpYUt/
systemd-private-6368e137ef974f2ea2213319eb667d8e-geoclue.service-uqrV6d/
systemd-private-6368e137ef974f2ea2213319eb667d8e-low-memory-monitor.service-LSNXxz/
systemd-private-6368e137ef974f2ea2213319eb667d8e-ModemManager.service-RbflpI/
systemd-private-6368e137ef974f2ea2213319eb667d8e-power-profiles-daemon.service-N2pZ9s/
systemd-private-6368e137ef974f2ea2213319eb667d8e-rtkit-daemon.service-r3Rgbq/
systemd-private-6368e137ef974f2ea2213319eb667d8e-switcheroo-control.service-URp4ze/
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-logind.service-eLQMK3/
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-oomd.service-ADQ9Vh
systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-resolved.service-LC
systemd-private-6368e137ef974f2ea2213319eb667d8e-upower.service-Ftxbak/
Temp-22184465-2167-4236-801b-79603d9187fc/
tracker-extract-3-files.1000/
[asmaslova@fedora tmp]$
```

рис.3 Выполнение функции `ls` с опцией `-F`

```

[asmaslova@fedora tmp]$ ls -l
total 0
drwxr-xr-x. 2 asmaslova asmaslova 40 Apr 30 02:26 hsuperfdata_asmaslova
drwx-----, 2 asmaslova asmaslova 40 Apr 30 02:33 mozilla_asmaslova0
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-chrond.service-Am
4uW0
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-colord.service-mEf
deq
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-dbus-broker.servic
e-bmpYUt
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-geoclue.service-ug
rV6d
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-low-memory-monitor
.service-LSMXxz
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-ModemManager.servi
ce-RbflpI
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-power-profiles-dae
mon.service-W2pZ9s
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-rtkit-daemon.servi
ce-r3RgBq
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-switcheroo-control
.service-URp4ze
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-logind.ser
vice-eLQmk3
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-oomd.servi
ce-ADQ9Vvk
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-resolved.s
ervice-LOQo3e
drwx-----, 3 root      root      60 Apr 29 23:02 systemd-private-6368e137ef
bak
drwx-----, 3 asmaslova asmaslova 60 Apr 30 02:31 Temp-22184465-2167-4238-86
drwx-----, 2 asmaslova asmaslova 40 Apr 30 02:33 tracker-extract-3-files.16
[asmaslova@fedora tmp]$

```

рис.4 Выполнение функции `ls` с опцией `-l`

```

[asmaslova@fedora tmp]$ ls -alF
total 16
drwxrwxrwt. 24 root root 560 Apr 30 02:44 ./
dr-xr-xr-x. 1 root root 152 Oct 26 2021 ../
drwxrwxrwt. 2 root root 40 Apr 29 23:02 .font-unix/
drwxr-xr-x. 2 asmaslova asmaslova 40 Apr 30 02:26 hyperfdata_amaslova/
drwxrwxrwt. 2 root root 80 Apr 29 23:03 .ICE-unix/
drwx-----. 2 asmaslova asmaslova 40 Apr 30 02:33 mozilla_amaslova/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-chronyd.service-
Am4uW0/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-colord.service-m
Efdeq/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-dbus-broker.serv
ice-bmpYUt/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-geoclue.service-
uqrV6d/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-low-memory-monit
or.service-LSMXsz/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-ModemManager.ser
vice-RbflpI/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-power-profiles-d
aemon.service-N2pZ9s/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-rtkit-daemon.ser
vice-r3Rgba/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-switcheroo-contr
ol.service-URp4ze/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-logind.s
ervice-elQMK3/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-oomd.ser
vice-ADQ9Vh/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-systemd-resolved
.service-L0Qe3o/
drwx-----. 3 root root 60 Apr 29 23:02 systemd-private-6368e137ef974f2ea2213319eb667d8e-upower.service-F
txbak/
drwx-----. 3 asmaslova asmaslova 60 Apr 30 02:31 Temp-22184465-2167-4230-801b-79603d9187fc/
drwxrwxrwt. 2 root root 40 Apr 29 23:02 .Test-unix/
drwx-----. 2 asmaslova asmaslova 40 Apr 30 02:33 tracker-extract-3-files.1000/
-r--r--r--. 1 asmaslova asmaslova 11 Apr 29 23:03 .X0-lock
-r--r--r--. 1 gdm gdm 11 Apr 29 23:02 .X1024-lock
-r--r--r--. 1 gdm gdm 11 Apr 29 23:02 .X1025-lock
drwxrwxrwt. 2 root root 120 Apr 29 23:03 .X11-unix/
-r--r--r--. 1 asmaslova asmaslova 11 Apr 29 23:03 .X1-lock
drwxrwxrwt. 2 root root 40 Apr 29 23:02 .X11-unix/
[asmaslova@fedora tmp]$

```



рис.5 Выполнение функции `ls` с опцией `-a/F`

После с помощью команды *ls -a* я обнаружила, что в каталоге */var/spool* не существует подкаталог с именем *cron* (рис.6)

```
[asmaslova@fedora ~]$ cd /var/spool
[asmaslova@fedora spool]$ ls
abrt  abrt-upload  cups  lpd  mail  plymouth
[asmaslova@fedora spool]$ ls -F
abrt/  abrt-upload/  cups/  lpd/  mail/  plymouth/
[asmaslova@fedora spool]$ ls -a
.  ..  abrt  abrt-upload  cups  lpd  mail  plymouth
[asmaslova@fedora spool]$
```

рис.6 Поиск подкаталога cron в /var/spool

С помощью команды *ls -a/F* я узнала, кто является владельцем файлов и подкаталогов (рис.7)

```

[asmaslova@fedora spool]$ cd
[asmaslova@fedora ~]$ ls -aLF
total 48
drwx-----, 1 asmaslova asmaslova 602 Apr 30 02:17 ./
drwxr-xr-x, 1 root root 18 Apr 22 21:59 ../
-rw-----, 1 asmaslova asmaslova 4728 Apr 30 02:44 .bash_history
-rw-r--r--, 1 asmaslova asmaslova 18 Jul 21 2021 .bash_logout
-rw-r--r--, 1 asmaslova asmaslova 141 Jul 21 2021 .bash_profile
-rw-r--r--, 1 asmaslova asmaslova 492 Jul 21 2021 .bashrc
drwx-----, 1 asmaslova asmaslova 440 Apr 30 00:41 .cache/
drwxr-xr-x, 1 asmaslova asmaslova 282 Apr 29 23:10 .config/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Desktop/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Documents/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 30 02:33 Downloads/
-rw-rw-r--, 1 asmaslova asmaslova 424 Apr 22 22:57 .gitconfig
drwx-----, 1 asmaslova asmaslova 134 Apr 30 02:34 .gnupg/
drwx-----, 1 asmaslova asmaslova 20 Apr 22 21:59 .local/
drwxr-xr-x, 1 asmaslova asmaslova 48 Apr 22 22:53 .mozilla/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Music/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Pictures/
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Public/
drwx-----, 1 asmaslova asmaslova 80 Apr 22 22:47 .ssh/
drwxrwxr-x, 1 asmaslova asmaslova 166 Apr 26 02:07 .stack/
-rw-----, 1 asmaslova asmaslova 2207 Apr 26 02:07 stack.yaml
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Templates/
drwxrwxr-x, 1 asmaslova asmaslova 18 Apr 30 02:17 .texlive2021/
-rw-r-----, 1 asmaslova asmaslova 5 Apr 29 23:03 .vboxclient-clipboard.pid
-rw-r-----, 1 asmaslova asmaslova 6 Apr 30 02:51 .vboxclient-display-svga-x11.pid
-rw-r-----, 1 asmaslova asmaslova 5 Apr 29 23:03 .vboxclient-draganddrop.
-rw-r-----, 1 asmaslova asmaslova 5 Apr 29 23:03 .vboxclient-seamless.pic
drwxr-xr-x, 1 asmaslova asmaslova 0 Apr 22 21:59 Videos/
-rw-rw-r--, 1 asmaslova asmaslova 180 Apr 28 18:56 .wget-hsts
drwxrwxr-x, 1 asmaslova asmaslova 10 Apr 22 22:57 work/
[asmaslova@fedora ~]$

```

рис.7 Выполнение функции *ls* с опцией *-aLF* на корневом каталоге

3.

В домашнем каталоге я создала новый каталог с именем `newdir`. В каталоге `~/newdir` я создала новый каталог с именем `morefun`. В домашнем каталоге я создала одной командой три новых каталога с именами `letters`, `memos`, `misk`. Затем я удалила эти каталоги одной командой. Далее я попробовала удалить ранее созданный каталог `~/newdir` командой `rm`, но не смогла, так как без спец. опций функция *rm* не может удалять каталоги. Далее я удалила каталог `~/newdir/morefun` из домашнего каталога с помощью *rmdir -ignore-fail-on-non-empty* (рис.8).

```

[asmaslova@fedora ~]$ mkdir newdir
[asmaslova@fedora ~]$ cd ~/newdir/
[asmaslova@fedora newdir]$ mkdir morefun
[asmaslova@fedora newdir]$ cd
[asmaslova@fedora ~]$ mkdir letters memos misk
[asmaslova@fedora ~]$ ls
Desktop  Downloads  memos  Music  Pictures  stack.yaml  Videos
Documents  letters  misk  newdir  Public  Templates  work
[asmaslova@fedora ~]$ rm newdir/
rm: cannot remove 'newdir/': Is a directory
[asmaslova@fedora ~]$ rmdir newdir/
rmdir: failed to remove 'newdir/': Directory not empty
[asmaslova@fedora ~]$ rmdir -f newdir/
rmdir: invalid option -- 'f'
Try 'rmdir --help' for more information.
[asmaslova@fedora ~]$ rmdir --help
Usage: rmdir [OPTION]... DIRECTORY...
Remove the DIRECTORY(ies), if they are empty.

    --ignore-fail-on-non-empty
                        ignore each failure that is solely because a directory
                        is non-empty
    -p, --parents       remove DIRECTORY and its ancestors; e.g., 'rmdir -p a/b/c' is
                        similar to 'rmdir a/b/c a/b a'
    -v, --verbose       output a diagnostic for every directory processed
    --help              display this help and exit
    --version           output version information and exit

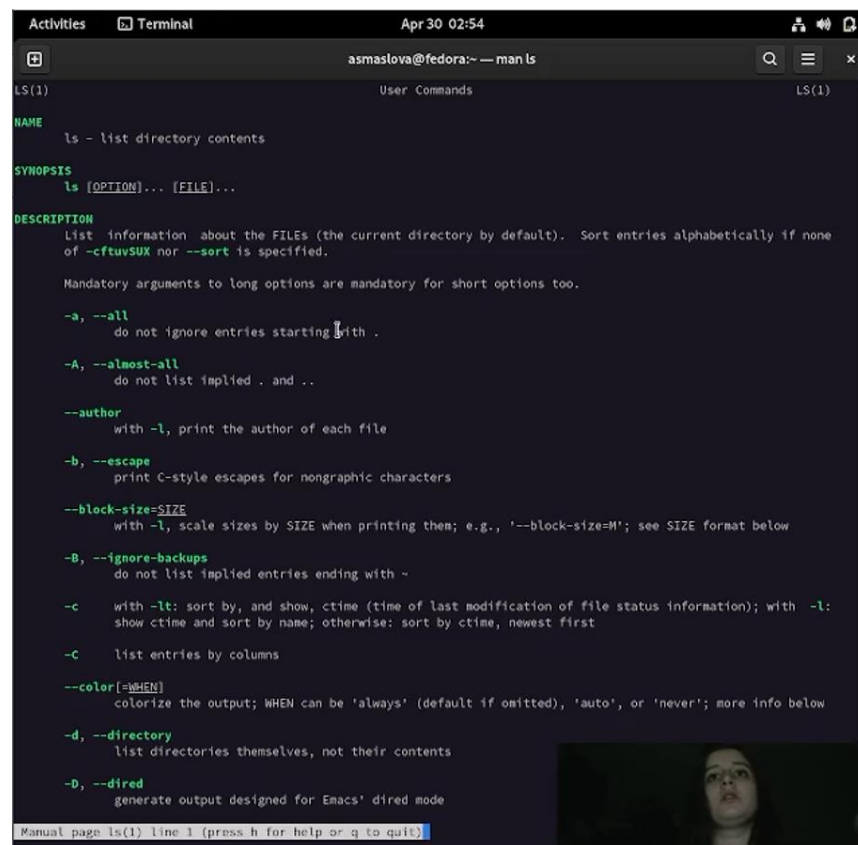
GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/rmdir>
or available locally via: info '(coreutils) rmdir invocation'
[asmaslova@fedora ~]$ rmdir --ignore-fail-on-non-empty newdir/
[asmaslova@fedora ~]$ ls
Desktop  Downloads  memos  Music  Pictures  stack.yaml  Videos
Documents  letters  misk  newdir  Public  Templates  work
[asmaslova@fedora ~]$ man

```

рис.8 Создание новых подкаталогов и попытка их удалить

4.

С помощью команды `man` я определила, что с командой `ls` нужно использовать опцию `-R` для просмотра содержимого не только указанного каталога, но и подкаталогов, входящих в него (рис.9-10).



```
Activities Terminal Apr 30 02:54 asmaslova@fedora:~ -- man ls
LS(1) User Commands LS(1)

NAME
  ls - list directory contents

SYNOPSIS
  ls [OPTION]... [FILE]...

DESCRIPTION
  List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

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

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

  -A, --almost-all
      do not list implied . and ..

  --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., '--block-size=M'; see SIZE format below

  -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

  --color[=WHEN]
      colorize the output; WHEN can be 'always' (default if omitted), 'auto', or 'never'; more info below

  -d, --directory
      list directories themselves, not their contents

  -D, --dired
      generate output designed for Emacs' dired mode

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

рис.9 Результат вывода *man ls*

```

Makefile presentation.md

./work/study/2021-2022/OC/os-intro/project-personal/stage6/report:
bib image Makefile pandoc report.md

./work/study/2021-2022/OC/os-intro/project-personal/stage6/report/bib:
cite.bib

./work/study/2021-2022/OC/os-intro/project-personal/stage6/report/image:
placeimg_800_600_tech.jpg

./work/study/2021-2022/OC/os-intro/project-personal/stage6/report/pandoc:
csl

./work/study/2021-2022/OC/os-intro/project-personal/stage6/report/pandoc/csl:
gost-r-7-8-5-2008-numeric.csl

./work/study/2021-2022/OC/os-intro/template:
presentation report

./work/study/2021-2022/OC/os-intro/template/presentation:
CHANGELOG.md History.md LICENSE package.json presentation README.git-flow.md README.md

./work/study/2021-2022/OC/os-intro/template/presentation/presentation:
Makefile presentation.md

./work/study/2021-2022/OC/os-intro/template/report:
CHANGELOG.md LICENSE package.json README.git-flow.md README.md README.ru.md report scripts

./work/study/2021-2022/OC/os-intro/template/report/report:
bib image Makefile pandoc report.md

./work/study/2021-2022/OC/os-intro/template/report/report/bib:
cite.bib

./work/study/2021-2022/OC/os-intro/template/report/report/image:
placeimg_800_600_tech.jpg

./work/study/2021-2022/OC/os-intro/template/report/report/pandoc:

```

рис.10 Часть результата работы *ls -R*

5.

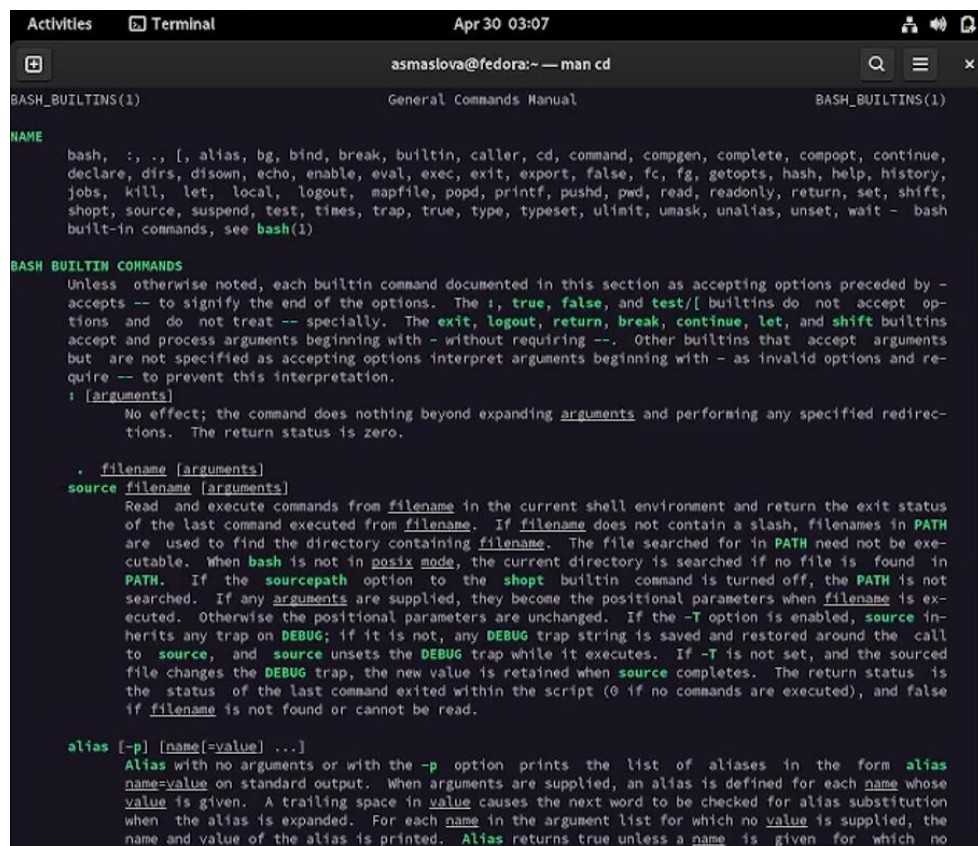
С помощью команды `man` я определила, что опции `-t` `-l` функции `ls` позволяют отсортировать по времени последнего изменения выводимый список содержимого каталога с развёрнутым описанием файлов (рис.11).

```
[asmaslova@fedora ~]$ man ls
[asmaslova@fedora ~]$
[asmaslova@fedora ~]$ ls -t -l
total 4
drwxrwxr-x. 1 asmaslova asmaslova    0 Apr 30 02:52 misk
drwxrwxr-x. 1 asmaslova asmaslova    0 Apr 30 02:52 menos
drwxrwxr-x. 1 asmaslova asmaslova    0 Apr 30 02:52 letters
drwxrwxr-x. 1 asmaslova asmaslova   14 Apr 30 02:52 newdir
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 30 02:33 Downloads
-rw-----. 1 asmaslova asmaslova 2207 Apr 26 02:07 stack.yaml
drwxrwxr-x. 1 asmaslova asmaslova   10 Apr 22 22:57 work
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Music
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Pictures
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Videos
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Desktop
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Documents
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Public
drwxr-xr-x. 1 asmaslova asmaslova    0 Apr 22 21:59 Templates
[asmaslova@fedora ~]$
```

рис.11 Выполнение функции `ls` с опциями `-t -l` на корневом каталоге

6.

С помощью команды `man` я просмотрела описания следующих команд: `cd`, `pwd`, `mkdir`, `rmdir`, `rm` (рис.12-16).



```
Activities Terminal Apr 30 03:07
asmaslova@fedora:~ — man cd
BASH_BUILTINS(1) General Commands Manual BASH_BUILTINS(1)

NAME
bash, :, ., [, alias, bg, bind, break, builtin, caller, cd, command, compgen, complete, compopt, 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, 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 opti-
ons 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 re-
quire -- to prevent this interpretation.

: [arguments]
No effect; the command does nothing beyond expanding arguments and performing any specified redirec-
tions. 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. The file searched for in PATH need not be exe-
cutable. When bash is not in posix mode, the current directory is searched 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 ex-
ecuted. Otherwise the positional parameters are unchanged. If the -T option is enabled, source in-
herits any trap on DEBUG; if it is not, any DEBUG trap string is saved and restored around the call
to source, and source unsets the DEBUG trap while it executes. If -T is not set, and the sourced
file changes the DEBUG trap, the new value is retained when source completes. The return status is
the status of the last command exited within the script (0 if no commands are executed), and false
if filename is not found or cannot be read.

alias [-p] [name[=value] ...]
Alias with no arguments or with the -p option prints the list of aliases in the form alias
name=value on standard output. When arguments are supplied, an alias is defined for each name whose
value is given. A trailing space in value causes the next word to be checked for alias substitution
when the alias is expanded. For each name in the argument list for which no value is supplied, the
name and value of the alias is printed. Alias returns true unless a name is given for which no
```

рис.12 Часть результата работы команды *man cd*

```
Activities Terminal Apr 30 03:07
asmaslova@fedora:~ — man pwd
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.

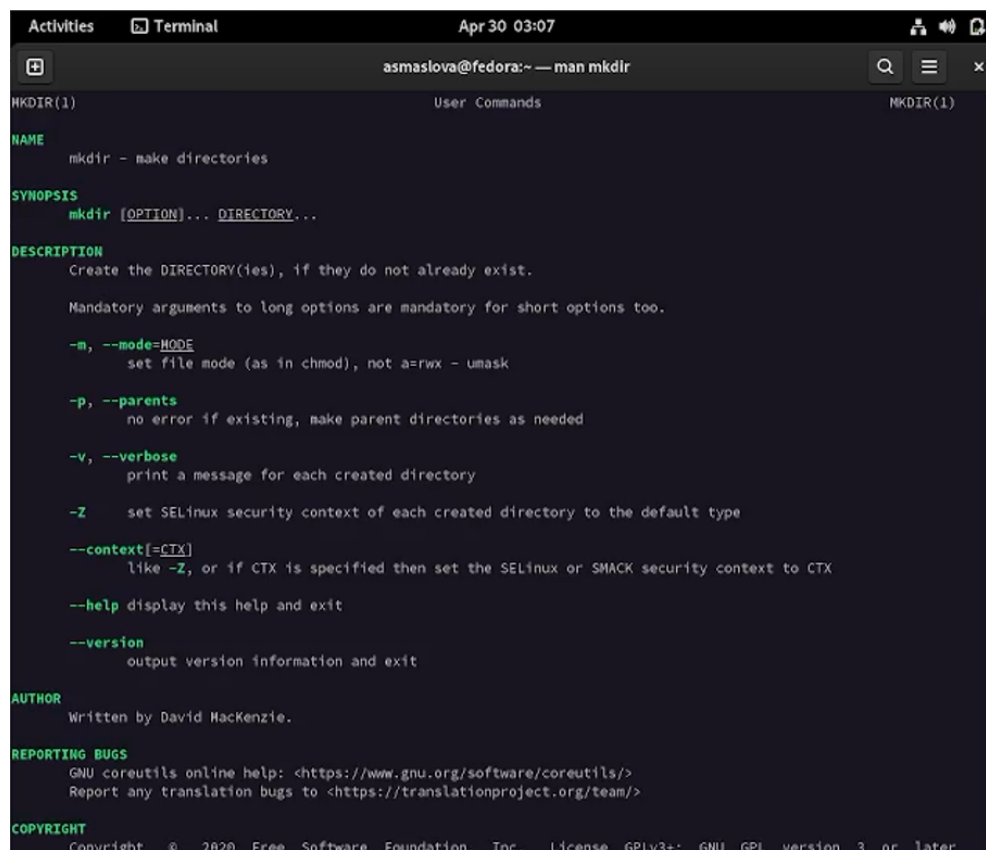
  NOTE: your shell may have its own version of pwd, which usually supersedes the version described here.
  Please refer to your shell's documentation for details about the options it supports.

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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  permitted by law.
```

рис.13 Часть результата работы команды *man pwd*



```
Activities Terminal Apr 30 03:07
asmaslova@fedora:~ — man mkdir
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

-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/>

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```

рис.14 Часть результата работы команды *man mkdir*

```
Activities Terminal Apr 30 03:07
asmaslova@fedora:~ — man rmdir
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 that is solely because a directory
        is non-empty

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

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

    --help
        display this help and exit

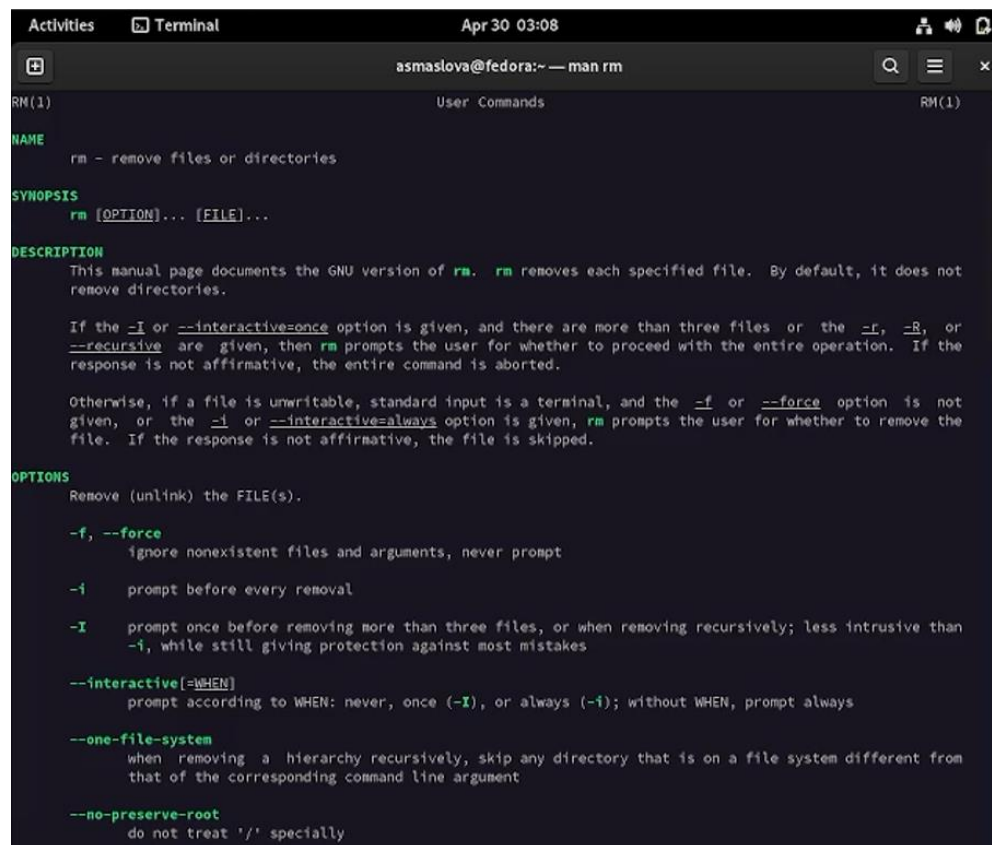
    --version
        output version information and exit

AUTHOR
    Written by David MacKenzie.

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

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    permitted by law.
```

рис.15 Часть результата работы команды *man rmdir*

A terminal window titled 'asmaslova@fedora:~ — man rm' displays the manual page for the 'rm' command. The window has a dark background with light-colored text. The terminal output is as follows:

```
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 -f, -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=always 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 removing 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

  --no-preserve-root
    do not treat '/' specially
```

рис.16 Часть результата работы команды *man rm*

7.

Используя информацию, полученную при помощи команды `history`, я выполнила модификацию и исполнение нескольких команд из буфера команд (рис.17-18).

```
[asmaslova@fedora ~]$ history
1 sudo dnf xclip xsel
2 sudo dnf install xclip xsel
3 cd /tmp
4 --no-check-certificate -q https://raw.githubusercontent.com/petervanderdoes/gitflow/develop/contrib/gitflow-installer.sh
5 wget --no-check-certificate -q https://raw.githubusercontent.com/petervanderdoes/gitflow/develop/contrib/gitflow-installer.sh
6 chmod +x gitflow-installer.sh
7 sudo ./gitflow-installer.sh install stable
8 sudo dnf install gh
9 git config --global user.name asmaslova
10 git config --global user.email anastasija.sher2017@yandex.ru
11 git config --global core.quotepath false
12 git config --global
13 git config --global core.autocrlf input
14 git config --global core.safecrlf warn
15 ssh-keygen -t rsa -b 4096
16 ssh-keygen -t ed25519
17 gpg --full-generate-key
18 gpg --list-secret-keys --keyid-format LONG
19 gpg --armor --export B72C11BAFA4FF2C8 | xclip -sel clip
20 git config --global user.signingkey B72C11BAFA4FF2C8
21 git config --global commit.gpgsign true
```

рис.17 Результат работы функции *history*

```
[asmaslova@fedora ~]$ !143
cd ~/work/study/2021-2022/OC/os-intro/labs/lab02/report/
[asmaslova@fedora report]$ !143:s/report/presentation
cd ~/work/study/2021-2022/OC/os-intro/labs/lab02/presentation/
[asmaslova@fedora presentation]$
```

рис.18 Результаты работы модификаций функции *history*

Вывод

В результате работы я получила навыки взаимодействия с системой через командную строку.