

ОТЧЕТ

ПО ЛАБОРАТОРНОЙ РАБОТЕ №5

дисциплина: Операционные системы

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МОСКВА

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Введение

один из самых простых способов узнать как используются и многие команды и некоторые предложения воспользоваться командой man. Под сокращением man скрывается слово manual руководство, предоставляющее свой набор страниц, которые могут рассказать о предназначении многих команд. В очень сжатом формате, man содержит короткое описание команд, принимаемых параметров и синтаксиса вызова этих команд. страницы man разделены на следующие разделы : команды пользователя в системе вызовы Подпрограммы устройства форматы файлов Игры Разное Системный администрирование

Цель работы

Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

Ход работы:

1. Пришёл в каталоге /tmp и вывел содержимое с помощью команды ls с разным опциями.

```
basir@haidary:~$ pwd
/home/basir
basir@haidary:~$ cd /tmp
basir@haidary:/tmp$ ls
config-err-1emppC
hsperfdata_basir
loose
lu10570g2fxhq.tmp
mozilla_basir0
OSL_PIPE_1000_SingleOfficeIPC_bd9f171a42c8eedeb495a80c5f8518d
snap.snap-store
ssh-V2Eqk4ZpDIeR
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-colord.service-gyPHag
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-ModemManager.service-GAwTOh
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-switcheroo-control.service-31U00g
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-logind.service-00gx3e
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-resolved.service-RSDmoj
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-timesyncd.service-NyuAHg
systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-upower.service-2J7ywf
Temp-dc13e83e-482f-43c1-a072-0c24fc3e92fe
tracker-extract-files.1000
tracker-extract-files.125
VMwareDnD
```

```
basir@haidary:/tmp$ ls -aFl
total 104
drwxrwxrwt 24 root root 4096 сен 11 21:21 ./
drwxr-xr-x 20 root root 4096 апр 29 00:24 ../
-rw----- 1 basir basir 0 сен 11 14:47 config-err-1emppC
drwxrwxrwt 2 root root 4096 сен 11 14:46 .font-unix/
drwxr-xr-x 2 basir basir 4096 сен 11 20:32 hsperfdata_basir/
drwxrwxrwt 2 root root 4096 сен 11 14:47 .ICE-unix/
drwxrwxrwx 3 basir basir 4096 сен 11 14:48 loose/
drwx----- 2 basir basir 4096 сен 11 21:04 lu10570g2fxhq.tmp/
drwx----- 2 basir basir 4096 сен 11 21:21 mozilla_basir0/
srwxrwxr-x 1 basir basir 0 сен 11 20:32 OSL_PIPE_1000_SingleOfficeIPC_bd9f171a42c8eedeb495a80c5f8518d=
drwx----- 3 root root 4096 сен 11 14:47 snap.snap-store/
drwx----- 2 basir basir 4096 сен 11 14:47 ssh-V2Eqk4ZpDIeR/
drwx----- 3 root root 4096 сен 11 14:47 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-colord.s
service-gyPHag/
drwx----- 3 root root 4096 сен 11 14:46 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-ModemMan
ager.service-GAwTOh/
drwx----- 3 root root 4096 сен 11 14:46 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-switcher
oo-control.service-31U00g/
drwx----- 3 root root 4096 сен 11 14:46 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-
logind.service-00gx3e/
drwx----- 3 root root 4096 сен 11 14:46 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-
resolved.service-RSDmoj/
drwx----- 3 root root 4096 сен 11 14:46 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-systemd-
timesyncd.service-NyuAHg/
drwx----- 3 root root 4096 сен 11 14:47 systemd-private-c2a992d93a604f0bb7d41fd765ab8f47-upower.s
ervice-2J7ywf/
drwx----- 3 basir basir 4096 сен 11 20:22 Temp-dc13e83e-482f-43c1-a072-0c24fc3e92fe/
drwxrwxrwt 2 root root 4096 сен 11 14:46 .Test-unix/
drwx----- 2 basir basir 4096 сен 11 21:03 tracker-extract-files.1000/
drwx----- 2 gdm gdm 4096 сен 11 14:47 tracker-extract-files.125/
drwxrwxrwt 2 root root 4096 сен 11 14:46 VMwareDnD/
-r--r--r-- 1 gdm gdm 11 сен 11 14:47 .X1024-lock
-r--r--r-- 1 gdm gdm 11 сен 11 14:47 .X1025-lock
drwxrwxrwt 2 root root 4096 сен 11 14:47 .X11-unix/
drwxrwxrwt 2 root root 4096 сен 11 14:46 .XIM-unix/
```

```
basir@haidary:/tmp$ cd /var/spool
basir@haidary:/var/spool$ ls
anacron  cron  cups  libreoffice  mail  rsyslog
```

Определил если в каталоге /var/spool подкаталог с именем cron

```
basir@haidary:/var/spool$ ls -aFl
total 28
drwxr-xr-x  7 root  root 4096 фев  9 2021 ./
drwxr-xr-x 14 root  root 4096 фев  9 2021 ../
drwxr-xr-x  2 root  root 4096 апр 29 10:25 anacron/
drwxr-xr-x  3 root  root 4096 фев  9 2021 cron/
drwx--x---  3 root  lp   4096 фев  9 2021 cups/
drwxr-xr-x  3 root  root 4096 фев  9 2021 libreoffice/
lrwxrwxrwx  1 root  root   7 апр 29 00:21 mail -> ../mail/
drwx----- 2 syslog adm 4096 фев 11 2020 rsyslog/
```

Отобразил содержимое домашнего каталога и его Владельцев всех файлов -я

2.Выполните следующие действия: В домашнем каталоге создал новый каталог с именем newdir. А в каталоге /newdir создал новый каталог с именем morefun. В домашнем каталоге создал Одной командой три новых каталога с именами letters, memos,misk. Затем удалил их. Попробовал удалить Ранее созданный каталог /newdir командой rm. Превзошел ошибку, так-так данный каталог не был пустым. Удалил каталог /newdir/morefun из домашнего каталога проверял.

```
basir@haidary:/var/spool$ cd ~
basir@haidary:~$ mkdir newdir
basir@haidary:~$ ls
basir      folder.sh~  lab06.cpp  lab3.cpp  newdir  Videos
Desktop    is          'lab 1'    lab88.sh~ Pictures work
Documents  lab009.sh~  lab13_2.sh~ lab89.sh~ Public
Downloads  lab009.txt~  lab13_3.sh~ lab91.sh~ snap
file.sh~    lab01       lab13.sh~  lab05     Templates
folder2.sh~ lab01.cpp    lab2       letter    test1
folder3.sh~ lab02       lab3       Music     this
basir@haidary:~$ rmdir newdir
basir@haidary:~$ ls
basir      folder3.sh~  lab01.cpp  lab13.sh~  lab91.sh~  snap
Desktop    folder.sh~   lab02      lab2       lab05      Templates
Documents  is          lab06.cpp  lab3       letter     test1
Downloads  lab009.sh~  'lab 1'    lab3.cpp   Music      this
file.sh~    lab009.txt~  lab13_2.sh~ lab88.sh~  Pictures   Videos
folder2.sh~ lab01       lab13_3.sh~ lab89.sh~  Public     work
basir@haidary:~$ mkdir newdir
basir@haidary:~$ ls
basir      folder.sh~  lab06.cpp  lab3.cpp  newdir  Videos
Desktop    is          'lab 1'    lab88.sh~ Pictures work
Documents  lab009.sh~  lab13_2.sh~ lab89.sh~ Public
Downloads  lab009.txt~  lab13_3.sh~ lab91.sh~ snap
file.sh~    lab01       lab13.sh~  lab05     Templates
folder2.sh~ lab01.cpp    lab2       letter    test1
folder3.sh~ lab02       lab3       Music     this
basir@haidary:~$ cd
basir@haidary:~$ cd newdir
basir@haidary:~/newdir$ mkdir morefun
basir@haidary:~/newdir$ ls
morefun
basir@haidary:~/newdir$ cd
basir@haidary:~$ ls
basir      folder.sh~  lab06.cpp  lab3.cpp  newdir  Videos
Desktop    is          'lab 1'    lab88.sh~ Pictures work
Documents  lab009.sh~  lab13_2.sh~ lab89.sh~ Public
Downloads  lab009.txt~  lab13_3.sh~ lab91.sh~ snap
file.sh~    lab01       lab13.sh~  lab05     Templates
folder2.sh~ lab01.cpp    lab2       letter    test1
folder3.sh~ lab02       lab3       Music     this
basir@haidary:~$ mkdir this is letter
mkdir: cannot create directory 'this': File exists
mkdir: cannot create directory 'is': File exists
mkdir: cannot create directory 'letter': File exists
basir@haidary:~$ ls
basir      folder.sh~  lab06.cpp  lab3.cpp  newdir  Videos
Desktop    is          'lab 1'    lab88.sh~ Pictures work
Documents  lab009.sh~  lab13_2.sh~ lab89.sh~ Public
Downloads  lab009.txt~  lab13_3.sh~ lab91.sh~ snap
file.sh~    lab01       lab13.sh~  lab05     Templates
folder2.sh~ lab01.cpp    lab2       letter    test1
folder3.sh~ lab02       lab3       Music     this
basir@haidary:~$ rmdir this is letter
basir@haidary:~$ ls
basir      folder3.sh~  lab02      lab2       lab05      Templates
Desktop    folder.sh~   lab06.cpp  lab3       Music      test1
Documents  lab009.sh~  'lab 1'    lab3.cpp   newdir     Videos
Downloads  lab009.txt~  lab13_2.sh~ lab88.sh~  Pictures   work
file.sh~    lab01       lab13_3.sh~ lab89.sh~  Public     snap
folder2.sh~ lab01.cpp    lab13.sh~  lab91.sh~  Templates
basir@haidary:~$ rm -r newdir
basir@haidary:~$ ls
basir      folder3.sh~  lab02      lab2       lab05      test1
Desktop    folder.sh~   lab06.cpp  lab3       Music      Videos
Documents  lab009.sh~  'lab 1'    lab3.cpp   Pictures   work
Downloads  lab009.txt~  lab13_2.sh~ lab88.sh~  Public
file.sh~    lab01       lab13_3.sh~ lab89.sh~  snap
folder2.sh~ lab01.cpp    lab13.sh~  lab91.sh~  Templates
basir@haidary:~$
```

Использовал команду man для просмотра описания следующих команд :cd,pwd,mkdir,rmdir,rm. Пояснил описание опции этих команд.

С помощью команды man определил, какую опцию команды ls нужно использовать для просмотра содержимого не только указанного каталога , ну и подкаталогов, выходящих в Него.

```

NAME
    ls - list directory contents

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

DESCRIPTION
    List information about the FILES (the current directory by default). Sort entries alpha-
    betically 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 infor-
    mation); 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
Manual page ls(1) line 1 (press h for help or q to quit)

```

3:Основные опции pwd - обрасывать все символические ссылки и отображать справку об утилите и ее версию.

```

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 de-
scribed 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 pwd translation bugs to <https://translationproject.org/team/>

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SEE ALSO
    getcwd(3)

```

4:Основные опции mkdir - назначить режим доступа и выводить сообщение о каждом новом каталоге

```

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 mkdir translation bugs to <https://translationproject.org/team/>

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```

5:Основные опции rmdir - удалять всё

```

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 rmdir translation bugs to <https://translationproject.org/team/>

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SEE ALSO
    rmdir(2)

```

дочерние каталоги.
 опции rm - рекурсивное удаление, выводить запрос на подтверждение, выводит информацию о удаляемых файлах, игнорировать несуществующие файлы.

6:Основные

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=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

--preserve-root[=all]
do not remove `'/'` (default); with `'all'`, reject any command line argument on a separate device from its parent

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

полученную при помощи команды `history`, выполнил модификацию и и исполнение команды из буфера команд 8.

7. Используя я информацию,

```
bastr@haldary:~$ history
1 sudo apt install build-essential dkms linux-headers-$(uname -r)
2 dmesg | grep Linux
3 dmesg | grep -i hz
4 dmesg | grep CPU0
5 clear
6 dmesg | grep Linux
7 dmesg | grep CPU0
8 dmesg | grep -i hz
9 dmesg | grep Memory
10 dmesg | grep Hypervisor
11 sudo apt install sage
12 sage
13 sudo apt install sagemath-common
14 sage
15 clear
16 sage
17 clear
18 sage
19 clear
20 sage
21 x
22 cleare
23 clear
24 sudo apt-get install sagemath
25 x
26 sage
27 cd-ssh
28 clear
29 cd .ssh
30 ssh-keygen -C "хайдари ахмад басир <1032195980>"
31 ls
32 cat id_rsa.pub
33 cd
34 mkdir laboratory
35 cd laboratory
36 git init
37 echo "лабораторная работа #" >> README.md
38 git status
39 echo "# лабораторная работа #" >> README.md
40 git status
41 echo "# лабораторная работа #" >> README.md
42 add README.md
43 git status
```

Вывод.

Проверял практический навыки взаимодействия пользователь с системой посредством командной строки. Изучал опции различных команд Япония как и где их применять.