Лабораторная работа №5. Основы интерфейса взаимодействия пользователя с системой Unix на уровне командной строки

2021 г.
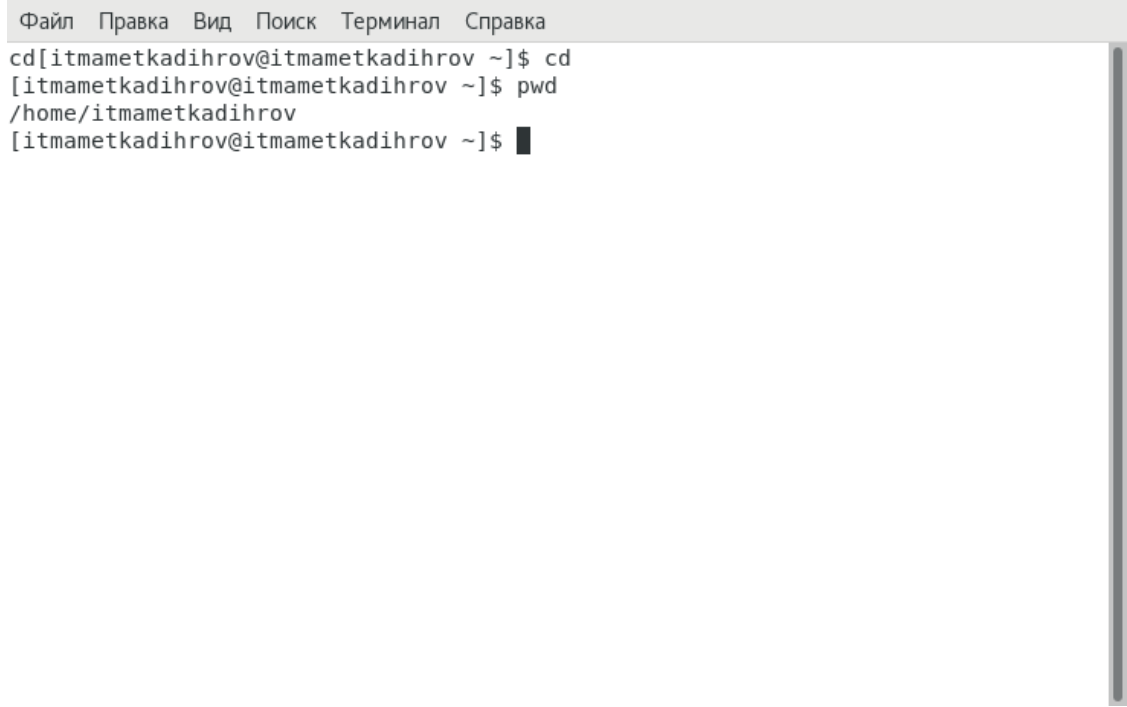
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Цель работы

Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

Определили полное имя домашнего каталог

```
Файл   Правка   Вид   Поиск   Терминал   Справка
cd[itmametkadihrov@itmametkadihrov ~]$ cd
[itmametkadihrov@itmametkadihrov ~]$ pwd
/home/itmametkadihrov
[itmametkadihrov@itmametkadihrov ~]$ █
```

Вывели на экран содержимое каталога /tmp

```
Файл  Правка  Вид  Поиск  Терминал  Справка
[itmametkadihrov@itmametkadihrov tmp]$ ls
akonadi-itmametkadihrov.AXGcpj
Cabal-2.2.0.1-12511
gnome-software-A7M320
gnome-software-GQRV20
gnome-software-IOK810
gnome-software-JOO820
gnome-software-KHZY20
gnome-software-ZR8220
hsperfdata_itmametkadihrov
hsperfdata_root
itmametkadihrov
kde-itmametkadihrov
lua_tLp600
mc-itmametkadihrov
mc-root
mozilla_itmametkadihrov0
sh-thd-1620481835
snap.remarkable
snap.typora
ssh-6IBWl8AojXgX
ssh-8sPsqkXTMRjc
ssh-ewbh75FRv33H
ssh-gyZZOmyPiFO4
ssh-kJDad0JYkNgh
ssh-N8eiXSOxByxW
ssh-rXYPsu13Kqg5
systemd-private-086946601ea24dc1b4d7f5ed1fe4ecb3-bolt.service-VqquqV
systemd-private-086946601ea24dc1b4d7f5ed1fe4ecb3-cups.service-PmPpy7
systemd-private-086946601ea24dc1b4d7f5ed1fe4ecb3-fwupd.service-Gwgvcq
systemd-private-11cbf4d48f14451ab10989fbd73a5408-chronyd.service-vG6u4V
```

Перешли в домашний каталог и вывели на экран его содержимое. Определили, кто является владельцем файлов и подкаталогов

```
Файл   Правка   Вид   Поиск   Терминал   Справка
abrt   abrt-upload   anacron   at   cron   cups   lpd   mail   plymouth   postfix
[itmametkadihrov@itmametkadihrov spool]$ cd
[itmametkadihrov@itmametkadihrov ~]$ ls -l
итого 144
drwxrwxr-x. 5 itmametkadihrov itmametkadihrov   179 май 12 18:28 academic-labora
tory-report-template
drwxrwxr-x. 4 itmametkadihrov itmametkadihrov   167 май 12 17:32 academic-presen
tation-markdown-template
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov  2574 май  7 21:18 iftex.sty
drwxrwxr-x. 6 itmametkadihrov itmametkadihrov   109 май  5 17:38 laboratory
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov   485 май  5 17:34 Makefile
drwxr-xr-x. 4 root            root              30 ноя 27  2018 pandoc-2.5
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov 34506 май 12 12:26 qwer.docx
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov  1537 май 12 12:22 qwer.md
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov  3977 май  9 12:09 qwer.pdf
drwxrwxr-x. 2 itmametkadihrov itmametkadihrov   207 май  9 14:50 SCR
drwxr-xr-x. 4 itmametkadihrov itmametkadihrov    38 май  9 17:21 snap
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov 33775 май 11 10:56 tmp.docx
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov    98 май 10 17:38 tmp.md
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov 47384 май 10 17:30 tmp.pdf
-rw-rw-r--. 1 itmametkadihrov itmametkadihrov     6 май  1 16:14 VERSION
drwxr-xr-x. 3 itmametkadihrov itmametkadihrov    23 май 11 11:37 work
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov    17 май 12 14:51 Видео
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov    23 май  7 21:18 Документы
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov     6 май  9 18:56 Загрузки
drwxr-xr-x. 5 itmametkadihrov itmametkadihrov    45 май 14 20:26 Изображения
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov     6 апр 29 23:16 Музыка
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov     6 апр 29 23:16 Общедоступные
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov     6 май 12 20:22 Рабочий стол
drwxr-xr-x. 2 itmametkadihrov itmametkadihrov     6 апр 29 23:16 Шаблоны
[itmametkadihrov@itmametkadihrov ~]$ 
```

В домашнем каталоге создали новый каталог с именем newdir. В каталоге ~/newdir созда новый каталог с именем morefun

```
[itmametkadihrov@itmametkadihrov ~]$ mkdir newdir
[itmametkadihrov@itmametkadihrov ~]$ cd newdir
[itmametkadihrov@itmametkadihrov newdir]$ mkdir morefun
```

В домашнем каталоге создали одной командой три новых каталога с именами letters, memos, misk. Затем удалили эти каталоги одной командой.

```
[itmametkadihrov@itmametkadihrov ~]$ mkdir letters memos misk
[itmametkadihrov@itmametkadihrov ~]$ rm -r letters memos misk
```

Изучили при помощи команды man набор опций команды ls.

```
    -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
            use quoting style WORD for entry names: literal, locale,  shell,
            shell-always, c, escape

    -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

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

--sort=<u>WORD</u>
       sort by WORD instead of name: none (**-U**), size (**-S**), time (**-t**),
       version (**-v**), extension (**-X**)

--time=<u>WORD</u>
       with **-l**, show time as WORD instead of default modification time:
       atime or access or use (**-u**) ctime or status (**-c**); also use spec-
       ified time as sort key if **--sort**=<u>time</u>

--time-style=<u>STYLE</u>
       with **-l**, show times using style STYLE: full-iso, long-iso, iso,
       locale, or +FORMAT; FORMAT is interpreted like in 'date'; if
       FORMAT is FORMAT1<newline>FORMAT2, then FORMAT1 applies to
       non-recent files and FORMAT2 to recent files; if STYLE is pre-
       fixed with 'posix-', STYLE takes effect only outside the POSIX
       locale

-t   sort by modification time, newest first

-T, **--tabsize**=<u>COLS</u>
       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

-U   do not sort; list entries in directory order

-v   natural sort of (version) numbers within text

Manual page ls(1) line 155 (press h for help or q to quit)

Также изучили набор опций команд cd, pwd, mkdir, rmdir и rm.

Файл   Правка   Вид   Поиск   Терминал   Справка

```
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 options
       and do not treat -- specially.  The exit, logout, break, continue, let,
       and  shift builtins accept and process arguments beginning with - with-
       out 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.  A zero exit code is
              returned.

       . 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 exe-
              cuted from filename.  If filename does not contain a slash, file
Manual page cd(1) line 1 (press h for help or q to quit)
```

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

       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.

       GNU   coreutils   online   help: <http://www.gnu.org/software/coreutils/>
       Report pwd translation bugs to <http://translationproject.org/team/>

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

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

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

```
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

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

```
Файл  Правка  Вид  Поиск  Терминал  Справка
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  --interac-
       tive=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

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

Вывод

Приобрели практические навыки взаимодействия пользователя с системой посредством командной строки.