

Лабораторная работа №5

Кавказова Диана Алексеевна

Кавказова Д.А.

9 марта 2023

Российский университет дружбы народов, Москва, Россия

Информация

- Кваказова Диана Алексеевна
- НБИбд-01-22
- Российский университет дружбы народов

- Для учащихся в сфере IT необходимо уметь работать с файлами через терминал на основе Linux.

- Основы интерфейса взаимодействия пользователя с системой Unix на уровне командной строки
- Операционные системы

- Изучить материал по созданию лабораторной
- Выполнить необходимые действия поэтапно

- Выполнение 1 и 2 примера.

```
dakavkazova@dk8n72 ~ $ cd
dakavkazova@dk8n72 ~ $ touch abc1
dakavkazova@dk8n72 ~ $ cp abc1 april
dakavkazova@dk8n72 ~ $ cp abc1 may
dakavkazova@dk8n72 ~ $ mkdir monthly
dakavkazova@dk8n72 ~ $ cp april may monthly
dakavkazova@dk8n72 ~ $ cp monthly/may monthly/june
dakavkazova@dk8n72 ~ $ ls monthly
april  june  may
dakavkazova@dk8n72 ~ $ mkdir monthly.00
dakavkazova@dk8n72 ~ $ cp -r monthly monthly.00
dakavkazova@dk8n72 ~ $ cp -r monthly.00 /tmp
```

- Выполнение 3 примера согласно инструкции.

```
dakavkazova@dk8n72 ~ $ cd
dakavkazova@dk8n72 ~ $ mv april july
dakavkazova@dk8n72 ~ $ mv july monthly.00
dakavkazova@dk8n72 ~ $ s monthly.00
bash: s: команда не найдена
dakavkazova@dk8n72 ~ $ ls monthly.00
july  monthly
dakavkazova@dk8n72 ~ $ mv monthly.00 monthly.01
dakavkazova@dk8n72 ~ $ mkdir reports
dakavkazova@dk8n72 ~ $ mv monthly.01 reports
dakavkazova@dk8n72 ~ $ mv reports/monthly.01
mv: после 'reports/monthly.01' пропущен операнд, задающий целевой файл
По команде «mv --help» можно получить дополнительную информацию.
dakavkazova@dk8n72 ~ $ mv reports/monthly.01 reports/monthly
```


- Выполнение 4 примера согласно инструкции.

```
dakavkazova@dk8n72 ~ $ cd
dakavkazova@dk8n72 ~ $ touch may
dakavkazova@dk8n72 ~ $ ls -l may
-rw-r--r-- 1 dakavkazova studsci 0 map 6 15:15 may
dakavkazova@dk8n72 ~ $ chmod u+x may
dakavkazova@dk8n72 ~ $ ls -l may
-rwxr--r-- 1 dakavkazova studsci 0 map 6 15:15 may
dakavkazova@dk8n72 ~ $ chmod u-x may
dakavkazova@dk8n72 ~ $ ls -l may
-rw-r--r-- 1 dakavkazova studsci 0 map 6 15:15 may
dakavkazova@dk8n72 ~ $ cd
dakavkazova@dk8n72 ~ $ mkdir monthly
mkdir: невозможно создать каталог «monthly»: Файл существует
dakavkazova@dk8n72 ~ $ chmod g-r, o-r monthly
chmod: неверный режим: «g-r,»
По команде «chmod --help» можно получить дополнительную информацию.
dakavkazova@dk8n72 ~ $ mkdir monthly
dakavkazova@dk8n72 ~ $ chmod g-r, o-r monthly
chmod: неверный режим: «g-r,»
По команде «chmod --help» можно получить дополнительную информацию.
```

- Выполнение второго пункта задания:

```
dakavkazova@dk8n72 ~ $ mv ski.places/equipment ski.places/equiplist
dakavkazova@dk8n72 ~ $ touch abc1
dakavkazova@dk8n72 ~ $ cp abc1 ski.places
dakavkazova@dk8n72 ~ $ mv ski.places/abc1 ski.places/equiplist2
dakavkazova@dk8n72 ~ $ cd ski.places
bash: cd: ski.places: Нет такого файла или каталога
dakavkazova@dk8n72 ~ $ cd ski.places
dakavkazova@dk8n72 ~/ski.places $ mkdir equipment
dakavkazova@dk8n72 ~/ski.places $ mv equiplist equipment
dakavkazova@dk8n72 ~/ski.places $ mv equiplist2 equipment
dakavkazova@dk8n72 ~/ski.places $ cd
dakavkazova@dk8n72 ~ $ mkdir newdir
dakavkazova@dk8n72 ~ $ mv newdir ski.places
dakavkazova@dk8n72 ~ $ mv newdir plans
mv: не удалось выполнить stat для 'newdir': Нет такого файла или каталога
dakavkazova@dk8n72 ~ $ cd ski.places
dakavkazova@dk8n72 ~/ski.places $ mv newdir plans
dakavkazova@dk8n72 ~/ski.places $ ls -l
итого 4
drwxr-xr-x 2 dakavkazova studsci 2048 мар  6 16:17 equipment
drwxr-xr-x 2 dakavkazova studsci 2048 мар  6 16:18 plans
dakavkazova@dk8n72 ~/ski.places $ cd
dakavkazova@dk8n72 ~ $ ls -l
итого 482
-rw-r--r-- 1 dakavkazova studsci 200355 мар  6 15:59 004-lab_shell-1.pdf
-rw-r--r-- 1 dakavkazova studsci 200355 мар  6 15:27 004-lab_shell.pdf
-rw-r--r-- 1 dakavkazova studsci      0 мар  6 16:12 abc1
drwxr-xr-x 2 dakavkazova studsci  2048 фев 20 18:00 bin
drwx----- 2 dakavkazova studsci  2048 фев 16 16:54 Downloads
-rw-r--r-- 1 dakavkazova studsci  5086 мар  6 16:04 equipment
drwxr-xr-x 3 dakavkazova studsci  2048 окт 12 14:44 GNUstep
-rw-r--r-- 1 dakavkazova studsci  5086 мар  6 16:02 io.h
-rw-r--r-- 1 dakavkazova studsci      0 мар  6 15:15 may
drwxr-xr-x 2 dakavkazova studsci  2048 мар  6 15:18 monthly
drwxr-xr-x 3 dakavkazova root    2048 сен  2 2022 public
lrwxr-xr-x 1 dakavkazova root      18 мар  2 22:11 public_html -> public/public_html
```

- Просмотрели файл

```
dakavkazova@dk8n72 ~ $ cat etc/passwd
root:x:0:0:System user; root:/root:/bin/bash
bin:x:1:1:bin:/bin:/bin/false
daemon:x:2:2:daemon:/sbin:/bin/false
adm:x:3:4:adm:/var/adm:/bin/false
lp:x:4:7:lp:/var/spool/lpd:/bin/false
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:Mail program user:/var/spool/mail:/sbin/nologin
news:x:9:13:news:/usr/lib/news:/bin/false
uucp:x:10:14:uucp:/var/spool/uucppublic:/bin/false
operator:x:11:0:operator:/root:/bin/bash
man:x:13:15:System user; man:/dev/null:/sbin/nologin
postmaster:x:14:12:Postmaster user:/var/spool/mail:/sbin/nologin
cron:x:16:16:A user for sys-process/cronbase:/var/spool/cron:/sbin/nologin
ftp:x:21:21::/home/ftp:/bin/false
sshd:x:22:22>User for ssh:/var/empty:/sbin/nologin
at:x:25:25:at:/var/spool/cron/atjobs:/bin/false
squid:x:31:31:Squid:/var/cache/squid:/bin/false
gdm:x:32:32>User for running GDM:/var/lib/gdm:/sbin/nologin
xfs:x:33:33:X Font Server:/etc/X11/fs:/bin/false
games:x:35:35:games:/usr/games:/bin/bash
named:x:40:40:bind:/var/bind:/bin/false
mysql:x:60:60:MySQL program user:/dev/null:/sbin/nologin
postgres:x:70:70:PostgreSQL program user:/var/lib/postgresql:/bin/sh
nut:x:84:84:nut:/var/state/nut:/bin/false
cyrus:x:85:12::/usr/cyrus:/bin/false
vpopmail:x:89:89::/var/vpopmail:/bin/false
alias:x:200:200::/var/qmail/alias:/bin/false
qmaild:x:201:200::/var/qmail:/bin/false
qmail1:x:202:200::/var/qmail:/bin/false
qmailp:x:203:200::/var/qmail:/bin/false
qmailq:x:204:201::/var/qmail:/bin/false
qmailr:x:205:201::/var/qmail:/bin/false
qmails:x:206:201::/var/qmail:/bin/false
```

- Скопировали файл ~/feathers в файл ~/file.old.
- Переместили файл ~/file.old в каталог ~/play.
- Скопировали каталог ~/play в каталог ~/fun.
- Переместили каталог ~/fun в каталог ~/play и назовите его games.
- Лишили владельца файла ~/feathers права на чтение.

```
dakavkazova@dk8n72 ~ $ cp features.h file.old
```

```
dakavkazova@dk8n72 ~ $ cp file.old play
```

```
dakavkazova@dk8n72 ~ $ cp play fun
```

```
cp: не указан -r; пропускается каталог 'play'
```

```
dakavkazova@dk8n72 ~ $ cp play/file.old fun
```

```
dakavkazova@dk8n72 ~ $ mv play fun
```

```
dakavkazova@dk8n72 ~ $ mv fun play
```

```
dakavkazova@dk8n72 ~ $ cd play
```

```
dakavkazova@dk8n72 ~/play $ mv play games
```

```
dakavkazova@dk8n72 ~/play $ cd
```

```
dakavkazova@dk8n72 ~ $ chmod u-x feathers
```

```
chmod: невозможно получить доступ к 'feathers': Нет такого файла или каталога
```

- Когда мы попытались просмотреть файл ~/feathers командой cat терминал выдал ограничение доступа.
- Мы попытались скопировать файл ~/feathers терминал выдал ограничение доступа.
- Дали владельцу файла ~/feathers право на чтение.

```
dakavkazova@dk8n72 ~ $ chmod u+x features.h +r
chmod: невозможно получить доступ к '+r': Нет такого файла или каталога
dakavkazova@dk8n72 ~ $ chmod u+x features.h + r
chmod: невозможно получить доступ к '+': Нет такого файла или каталога
chmod: невозможно получить доступ к 'r': Нет такого файла или каталога
dakavkazova@dk8n72 ~ $ chmod u-r features.h
dakavkazova@dk8n72 ~ $ cat features.h
cat: features.h: Отказано в доступе
dakavkazova@dk8n72 ~ $ chmod u+r features.h
dakavkazova@dk8n72 ~ $ cat features.h
/* Copyright (C) 1991-2022 Free Software Foundation, Inc.
   This file is part of the GNU C Library.

   The GNU C Library is free software; you can redistribute it and/or
   modify it under the terms of the GNU Lesser General Public
   License as published by the Free Software Foundation; either
   version 2.1 of the License, or (at your option) any later version.
```

- Лишили владельца каталога ~/play права на выполнение.
- Перешли в каталог ~/play.
- Дали владельцу каталога ~/play право на выполнение

```
dakavkazova@dk8n72 ~ $ chmod u-x play
dakavkazova@dk8n72 ~ $ cd play
dakavkazova@dk8n72 ~/play $ cd
dakavkazova@dk8n72 ~ $ chmod u- play
dakavkazova@dk8n72 ~ $ cd play
dakavkazova@dk8n72 ~/play $ cd
dakavkazova@dk8n72 ~ $ cd ~/play
dakavkazova@dk8n72 ~/play $ cd
dakavkazova@dk8n72 ~ $ chmod u-x play
dakavkazova@dk8n72 ~ $ chmod u=x play
```

- man mount

```

MOUNT(8)                                System Administration                                MOUNT(8)

NAME
    mount - mount a filesystem

SYNOPSIS
    mount [-h|-V]

    mount [-l] [-t fstype]

    mount -a [-fFnrsvw] [-t fstype] [-O optlist]

    mount [-fnrsvw] [-o options] device|mountpoint

    mount [-fnrsvw] [-t fstype] [-o options] device mountpoint

    mount --bind|--rbind|--move olddir newdir

    mount
    --make-=[shared|slave|private|unbindable|rshared|rslave|rprivate|runbindable]
    mountpoint

DESCRIPTION
    All files accessible in a Unix system are arranged in one big tree, the
    file hierarchy, rooted at /. These files can be spread out over several
    devices. The mount command serves to attach the filesystem found on some
    device to the big file tree. Conversely, the umount(8) command will detach
    it again. The filesystem is used to control how data is stored on the
    device or provided in a virtual way by network or other services.

    The standard form of the mount command is:

        mount -t type device dir

    This tells the kernel to attach the filesystem found on device (which is of
    type type) at the directory dir. The option -t type is optional. The mount

```

- man fsck

```
FSCK(8)                                System Administration                                FSCK(8)

NAME
    fsck - check and repair a Linux filesystem

SYNOPSIS
    fsck [-lsAVRTMNP] [-r [fd]] [-C [fd]] [-t fstype] [filesystem...] [--]
    [fs-specific-options]

DESCRIPTION
    fsck is used to check and optionally repair one or more Linux filesystems.
    filesystem can be a device name (e.g., /dev/hdc1, /dev/sdb2), a mount point
    (e.g., /, /usr, /home), or an filesystem label or UUID specifier (e.g.,
    UUID=8868abf6-88c5-4a83-98b8-bfc24057f7bd or LABEL=root). Normally, the
    fsck program will try to handle filesystems on different physical disk
    drives in parallel to reduce the total amount of time needed to check all
    of them.

    If no filesystems are specified on the command line, and the -A option is
    not specified, fsck will default to checking filesystems in /etc/fstab
    serially. This is equivalent to the -As options.

    The exit status returned by fsck is the sum of the following conditions:

    0
        No errors

    1
        Filesystem errors corrected

    2
        System should be rebooted

    4
        Filesystem errors left uncorrected
```


- man mkfs

```
MKFS(8)                                     System Administration                                     MKFS(8)

NAME
    mkfs - build a Linux filesystem

SYNOPSIS
    mkfs [options] [-t type] [fs-options] device [size]

DESCRIPTION
    This mkfs frontend is deprecated in favour of filesystem specific mkfs.<type> utils.

    mkfs is used to build a Linux filesystem on a device, usually a hard disk partition. The device argument is either the device name (e.g., /dev/hda1, /dev/sdb2), or a regular file that shall contain the filesystem. The size argument is the number of blocks to be used for the filesystem.

    The exit status returned by mkfs is 0 on success and 1 on failure.

    In actuality, mkfs is simply a front-end for the various filesystem builders (mkfs.fstype) available under Linux. The filesystem-specific builder is searched for via your PATH environment setting only. Please see the filesystem-specific builder manual pages for further details.

OPTIONS
    -t, --type type
        Specify the type of filesystem to be built. If not specified, the default filesystem type (currently ext2) is used.

    fs-options
        Filesystem-specific options to be passed to the real filesystem builder.

    -V, --verbose
        Produce verbose output, including all filesystem-specific commands that are executed. Specifying this option more than once inhibits execution of any filesystem-specific commands. This is really only useful for testing.

    -h, --help
        Display help text and exit.
```

Gentoo Packages
<https://packages.gentoo.org/>

- man kill

```

KILL(1)                                User Commands                                KILL(1)

NAME
    kill - send a signal to a process

SYNOPSIS
    kill [options] <pid> [...]

DESCRIPTION
    The default signal for kill is TERM. Use -l or -L to list available sig-
    nals. Particularly useful signals include HUP, INT, KILL, STOP, CONT, and
    0. Alternate signals may be specified in three ways: -9, -SIGKILL or
    -KILL. Negative PID values may be used to choose whole process groups; see
    the PGID column in ps command output. A PID of -1 is special; it indicates
    all processes except the kill process itself and init.

OPTIONS
    <pid> [...]
        Send signal to every <pid> listed.

    -<signal>
    -s <signal>
    --signal <signal>
        Specify the signal to be sent. The signal can be specified by using
        name or number. The behavior of signals is explained in signal\(7\)
        manual page.

    -q, --queue value
        Use sigqueue\(3\) rather than kill\(2\) and the value argument is used
        to specify an integer to be sent with the signal. If the receiving
        process has installed a handler for this signal using the SA_SIGINFO
        flag to sigaction\(2\), then it can obtain this data via the si_value
        field of the siginfo_t structure.

    -l, --list [signal]
        List signal names. This option has optional argument, which will
  
```