

Лабораторная работа 2

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Задача

1. Прочитайте справочное описание `man` по командам `ls`, `whoami`, `id`, `su`, `passwd`, `vi`, `visudo`, `useradd`, `usermod`, `userdel`, `groupadd`, `groupdel`.

1. Прочитайте справочное описание man по командам ls, whoami, id, su, passwd, vi, visudo, useradd, usermod, userdel, groupadd, groupdel.
2. Выполните действия по переключению между учётными записями пользователей, по управлению учётными записями пользователей (раздел 2.4.1).

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2. Выполните действия по переключению между учётными записями пользователей, по управлению учётными записями пользователей (раздел 2.4.1).
3. Выполните действия по созданию пользователей и управлению их учётными записями (раздел 2.4.2).

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2. Выполните действия по переключению между учётными записями пользователей, по управлению учётными записями пользователей (раздел 2.4.1).
3. Выполните действия по созданию пользователей и управлению их учётными записями (раздел 2.4.2).
4. Выполните действия по работе с группами пользователей (раздел 2.4.3).

Выполнение

linux2022 on QEMU/KVM									
File Virtual Machine View Send Key									
LS(1)	User Commands	LS(1)	WHOAMI(1)	User Commands	WHOAMI(1)	ID(1)	User Commands	ID(1)	SU(1)
NAME	ls - list directory contents	NAME	whoami - print effective userid	NAME	id - print real and effective user and group IDs	NAME	su - run a command with substitute user and group ID	NAME	su - run a command with substitute user and group ID
SYNOPSIS	ls [OPTION]... [FILE]...	SYNOPSIS	whoami [OPTION]...	SYNOPSIS	id [OPTION]... [USER]...	SYNOPSIS	su [options] [-i] [-user [argument]...]	SYNOPSIS	su [options] [-i] [-user [argument]...]
DESCRIPTION	List information about the files (the current directory by default). Sort entries alphabetically if none of <code>-eftuxSUX</code> nor <code>--sort</code> is specified.	DESCRIPTION	Print the user name associated with the current effective user ID. Same as <code>id -un</code> .	DESCRIPTION	Print user and group information for each specified USER, or (when USER omitted) for the current user.	DESCRIPTION	su allows commands to be run with a substitute user and group ID.	DESCRIPTION	su allows commands to be run with a substitute user and group ID.
line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)
<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top
PASSWD(1)	User utilities	PASSWD(1)	UIM(1)	General Commands Manual UIM(1)	U... BSD System Manager's Manual U...	U... BSD System Manager's Manual U...	USERADDSystem Management ComUSERADD(B)	USERADDSystem Management ComUSERADD(B)	USERADDSystem Management ComUSERADD(B)
NAME	passwd - update user's authentication tokens	NAME	vim - Vi Improved, a programmer's text editor	NAME	visudo - edit the sudoers file	NAME	useradd - create a new user or update default new user information	NAME	useradd - create a new user or update default new user information
SYNOPSIS	passwd [-k] [-l] [-u [-f]] [-d] [-e] [-n mindays] [-x maxdays] [-u userdays] [-i inactivedays] [-S] [-stdin] [-?] [-usage] [username]	SYNOPSIS	vim [options] [file ...] vim [options] - vim [options] -t tag vim [options] -q [errorfile] ex gex view	SYNOPSIS	visudo [-chqsU] [-f] sudoers]	SYNOPSIS	useradd [options] LOGIN useradd -D useradd -D [options]	SYNOPSIS	useradd [options] LOGIN useradd -D useradd -D [options]
DESCRIPTION		DESCRIPTION		DESCRIPTION	visudo edits the <code>sudoers</code> file in a safe fashion, analogous to <code>vi</code> (1). visudo locks the <code>sudoers</code> file against multiple simultaneous edits, performs ba-	DESCRIPTION		DESCRIPTION	
line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)
<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top
USERMODSystem Management ComUSERMOD(B)	USERMODSystem Management ComUSERMOD(B)	USERMODSystem Management ComUSERMOD(B)	USERDELSystem Management ComUSERDEL(B)	USERDELSystem Management ComUSERDEL(B)	GROUPADDSystem Management CoGROUPADD(B)	GROUPADDSystem Management CoGROUPADD(B)	GROUPDELSystem Management CoGROUPDEL(B)	GROUPDELSystem Management CoGROUPDEL(B)	GROUPDELSystem Management CoGROUPDEL(B)
NAME	usermod - modify a user account	NAME	userdel - delete a user account and related files	NAME	groupadd - create a new group	NAME	groupdel - delete a group	NAME	groupdel - delete a group
SYNOPSIS	usermod [options] LOGIN	SYNOPSIS	userdel [options] LOGIN	SYNOPSIS	groupadd [options] group	SYNOPSIS	groupdel [options] GROUP	SYNOPSIS	groupdel [options] GROUP
DESCRIPTION	The usermod command modifies the system account files to reflect the changes that are specified on the command line.	DESCRIPTION	The userdel command modifies the system account files, deleting all entries that refer to the user name LOGIN. The named user must exist.	DESCRIPTION	The groupadd command creates a new group account using the values specified on the command line plus the default values from the system. The new group will be entered into	DESCRIPTION	The groupdel command modifies the system account files, deleting all entries that refer to GROUP. The named group must exist.	DESCRIPTION	The groupdel command modifies the system account files, deleting all entries that refer to GROUP. The named group must exist.
OPTIONS		OPTIONS		OPTIONS		OPTIONS		OPTIONS	
line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)	line 1 (press h for help or q to quit)
<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top	<clov4dmgencalov> 1 1.1 Top

Переключение между учётными записями пользователей

```
dmgeneralov@dmgeneralov ~]$ whoami
dmgeneralov
dmgeneralov@dmgeneralov ~]$ id
uid=1000(dmgeneralov) gid=1000(dmgeneralov) groups=1000(dmgeneralov),10(wheel) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1823
dmgeneralov@dmgeneralov ~]$ su root
Password:
su: Authentication failure
dmgeneralov@dmgeneralov ~]$ sudo passwd root
Changing password for user root.
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
Retype new password:
passwd: all authentication tokens updated successfully.
dmgeneralov@dmgeneralov ~]$ su root
Password:
[root@dmgeneralov dmgeneralov]# id
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1823
[root@dmgeneralov dmgeneralov]#
```

Рис. 2: su

```
## Syntax:
##
##      user    MACHINE=COMMANDS
##
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root    ALL=(ALL)        ALL

## Allows members of the 'sys' group to run networking, software,
## service management apps and more.
# %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEGATING, PROCESSES, LOCATE, DRIVERS

## Allow people in group wheel to run all commands
wheel    ALL=(ALL)        ALL

## Same thing without a password
# %wheel    ALL=(ALL)        NOPASSWD: ALL

## Allows members of the users group to mount and unmount the
## cdrom as root
# %users    ALL=/sbin/mount /mnt/cdrom, /sbin/umount /mnt/cdrom

## Allows members of the users group to shutdown this system
# %users    localhost=/sbin/shutdown -h now

## Read drop-in files from /etc/sudoers.d (the # here does not mean a comment)
#includedir /etc/sudoers.d
~
~
~
~
```

Рис. 3: sudoers

```
(root@dmgeneralov dmgeneralov)# useradd -G wheel alice
71 (root@dmgeneralov dmgeneralov)# id alice
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel)
12 (root@dmgeneralov dmgeneralov)# passwd alice
Changing password for user alice.
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
3 Retype new password:
passwd: all authentication tokens updated successfully.
4 (root@dmgeneralov dmgeneralov)# su alice
[alice@dmgeneralov dmgeneralov]$ sudo useradd bob

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

    #1) Respect the privacy of others.
    #2) Think before you type.
    #3) With great power comes great responsibility.
5

[sudo] password for alice:
[alice@dmgeneralov dmgeneralov]$ sudo passwd bob
Changing password for user bob.
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
6 Retype new password:
passwd: all authentication tokens updated successfully.
7 [alice@dmgeneralov dmgeneralov]$
```

Рис. 4: useradd

```
# It should remove any at/cron/print jobs etc. owned by
# the user to be removed (passed as the first argument).
#
#USERDEL_CMD    /usr/sbin/userdel_local

#
# Enables userdel(8) to remove user groups if no members exist.
#
USERGROUPS_ENAB no

#
# If set to a non-zero number, the shadow utilities will make sure that
# groups never have more than this number of users on one line.
# This permits to support split groups (groups split into multiple lines,
# with the same group ID, to avoid limitation of the line length in the
# group file).
#
# 0 is the default value and disables this feature.
#
MAX_MEMBERS_PER_GROUP 0

#
# If useradd(8) should create home directories for users by default (non
# system users only).
# This option is overridden with the -M or -m flags on the useradd(8)
# command-line.
#
CREATE_HOME     yes

#
# Force use shadow, even if shadow passwd & shadow group files are
# missing.
"
```

/etc/skel

```
[root@dmgeneralov dmgeneralov]# cd /etc/skel
[root@dmgeneralov skel]# mkdir Pictures
[root@dmgeneralov skel]# mkdir Documents
[root@dmgeneralov skel]# echo "export EDITOR=/usr/bin/vim" >> .bashrc
[root@dmgeneralov skel]# useradd carol
[root@dmgeneralov skel]# passwd carol
Changing password for user carol.
New password:
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic
Retype new password:
passwd: all authentication tokens updated successfully.
[root@dmgeneralov skel]# id carol
uid=1003(carol) gid=1003(carol) groups=1003(carol)
[root@dmgeneralov skel]# ls ~carol
Documents Pictures
[root@dmgeneralov skel]# passwd -n 30 -w 3 -x 90 carol
Adjusting aging data for user carol.
passwd: Success
[root@dmgeneralov skel]#
```

Рис. 6: skel

```
/etc/login.defs" Z7bL, 7777b written
[root@dmgeneralov shell# for i in dan dave david; do useradd $i; done
[root@dmgeneralov shell# grep alice /etc/passwd /etc/shadow /etc/group
/etc/passwd:alice:x:1001:1001::/home/alice:/bin/bash
/etc/shadow:alice:$6$0ZINU4KkLuhusfthES9ga/h10Tu6heLv8b11CGoaz.UZeF7Fv8mpdMddJXZlMnF94lJp0NTU67xrUbM8dZcm6vdkWkSyfQ5ZfJ7ndz9.:19300:0:99999:7::
/etc/group:wheel:x:10:dmgeneralov,alice
/etc/group:alice:x:1001:
[root@dmgeneralov shell# grep david /etc/passwd /etc/shadow /etc/group
/etc/passwd:david:x:1006:100::/home/david:/bin/bash
/etc/shadow:david:!:19300:0:99999:7::
[root@dmgeneralov shell# id david
uid=1006(david) gid=100(users) groups=100(users)
[root@dmgeneralov shell# _
```

Рис. 7: passwd

```
(root@dmgeneralov skell)# groupadd main
(root@dmgeneralov skell)# groupadd third
(root@dmgeneralov skell)# usermod -aG main alice
(root@dmgeneralov skell)# usermod -aG main bob
(root@dmgeneralov skell)# usermod -aG third
Usage: usermod [options] LOGIN

Options:
  -b, --badnames          allow bad names
  -c, --comment COMMENT   new value of the GECOS field
  -d, --home HOME_DIR     new home directory for the user account
  -e, --expiredate EXPIRE_DATE set account expiration date to EXPIRE_DATE
  -f, --inactive INACTIVE set password inactive after expiration
                           to INACTIVE
  -g, --gid GROUP          force use GROUP as new primary group
  -G, --groups GROUPS      new list of supplementary GROUPS
  -a, --append             append the user to the supplemental GROUPS
                           mentioned by the -G option without removing
                           the user from other groups
  -h, --help              display this help message and exit
  -l, --login NEW_LOGIN   new value of the login name
  -L, --lock              lock the user account
  -m, --move-home         move contents of the home directory to the
                           new location (use only with -d)
  -o, --non-unique         allow using duplicate (non-unique) UID
  -p, --password PASSWORD use encrypted password for the new password
  -R, --root CHROOT_DIR   directory to chroot into
  -P, --prefix PREFIX_DIR prefix directory where are located the /etc/* files
  -s, --shell SHELL       new login shell for the user account
  -u, --uid UID            new UID for the user account
  -U, --unlock             unlock the user account
  -v, --add-subuids FIRST-LAST add range of subordinate uids
  -V, --del-subuids FIRST-LAST remove range of subordinate uids
  -w, --add-subgids FIRST-LAST add range of subordinate gids
  -W, --del-subgids FIRST-LAST remove range of subordinate gids
  -Z, --selinux-user SEUSER new SELinux user mapping for the user account

(root@dmgeneralov skell)# usermod -aG third carol
(root@dmgeneralov skell)# usermod -aG third dan
(root@dmgeneralov skell)# usermod -aG third dave
(root@dmgeneralov skell)# usermod -aG third david
(root@dmgeneralov skell)# id carol
uid=1003(carol) gid=1003(carol) groups=1003(carol),1005(third)
(root@dmgeneralov skell)# id dave
uid=1005(dave) gid=100(users) groups=100(users),1005(third)
(root@dmgeneralov skell)# id alice
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel),1004(main)
(root@dmgeneralov skell)# _
```


Я получил опыт работы с группами и пользователями в Linux.