

# Презентация по лабораторной работе №2

Управление пользователями и группами

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10 сентября 2025

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## Цели и задачи работы

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Закрепить навыки администрирования в Linux, научиться создавать и настраивать учётные записи пользователей и групп, управлять правами доступа и параметрами паролей, а также освоить работу с системными файлами конфигурации.

## Ход выполнения работы

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# Переключение учётных записей пользователей



```
aradzhigalieva@aradzhigalieva:~$  
aradzhigalieva@aradzhigalieva:~$ whoami  
aradzhigalieva  
aradzhigalieva@aradzhigalieva:~$ id  
uid=1000(aradzhigalieva) gid=1000(aradzhigalieva) groups=1000(aradzhigalieva),10(wheel) context=unconfined_u:unconfined  
_r:unconfined_t:s0-s0:c0.c1023  
aradzhigalieva@aradzhigalieva:~$ su  
Password:  
root@aradzhigalieva:/home/aradzhigalieva# id  
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023  
root@aradzhigalieva:/home/aradzhigalieva#  
exit  
aradzhigalieva@aradzhigalieva:~$
```

Рис. 1: Определение текущего пользователя и вход под root

# Переключение учётных записей пользователей

```
aradzhigalieva@aradzhigalieva:~ -- sudo -i visudo

## Next comes the main part: which users can run what software on
## which machines (the sudoers file can be shared between multiple
## systems).
## 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

## Allows 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)
#include_dir /etc/sudoers.d
```

# Переключение учётных записей пользователей

```
alice@aradzhigalieva:/home/aradzhigalieva

aradzhigalieva@aradzhigalieva:~$
aradzhigalieva@aradzhigalieva:~$ sudo -i visudo
[sudo] password for aradzhigalieva:
aradzhigalieva@aradzhigalieva:~$ sudo -i useradd -G wheel alice
aradzhigalieva@aradzhigalieva:~$ id alice
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel)
aradzhigalieva@aradzhigalieva:~$ sudo -i passwd alice
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
aradzhigalieva@aradzhigalieva:~$ su alice
Password:
alice@aradzhigalieva:/home/aradzhigalieva$ 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.

For security reasons, the password you type will not be visible.

[sudo] password for alice:
alice@aradzhigalieva:/home/aradzhigalieva$ sudo passwd bob
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
alice@aradzhigalieva:/home/aradzhigalieva$ id bob
uid=1002(bob) gid=1002(bob) groups=1002(bob)
alice@aradzhigalieva:/home/aradzhigalieva$
```

# Создание учётных записей пользователей

The screenshot shows a terminal window titled "aradzhigalieva [Работает] - Oracle VirtualBox". The window has a menu bar with "Файл", "Машина", "Вид", "Ввод", "Устройства", and "Справка". The status bar at the top indicates "Sep 9 7:49 PM" and "en". The terminal is running the vim editor on the file "/etc/login.defs". The current line being edited is "USERGROUPS\_ENAB no", with the cursor at the end of the word "no". The terminal output shows the following configuration:

```
# 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.
#
-- INSERT --
```

The bottom right corner of the terminal window shows the file size "280,19" and the percentage "96%".



# Создание учётных записей пользователей



The screenshot shows a terminal window with a pink title bar. The title bar text is "alice@aradzhigalieva:/etc/skel - vim .bashrc" and below it, in smaller text, is "/etc/skel". On the right side of the title bar are two icons: a square icon and a hamburger menu icon. The main area of the terminal displays the content of the .bashrc file. The text is as follows:

```
# .bashrc

# Source global definitions
if [ -f /etc/bashrc ]; then
    . /etc/bashrc
fi

# User specific environment
if ! [[ "$PATH" =~ "$HOME/.local/bin:$HOME/bin:" ]]; then
    PATH="$HOME/.local/bin:$HOME/bin:$PATH"
fi
export PATH

# Uncomment the following line if you don't like systemctl's auto-paging feature:
# export SYSTEMD_PAGER=

# User specific aliases and functions
if [ -d ~/.bashrc.d ]; then
    for rc in ~/.bashrc.d/*; do
        if [ -f "$rc" ]; then
            . "$rc"
        fi
    done
fi
unset rc
export EDITOR=/usr/bin/vim
~
~
~
~
~
~
-- INSERT --
```

## Создание учётных записей пользователей

```
carol@aradzhigalieva:~$ su alice
Password:
alice@aradzhigalieva:/home/carol$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$QPpP3DDMLBPNkDZ8CYht01$1NR2X9NYZRqNK1VdCUHkrbR1N1b0EE2thD.WxWTFih2:20340:0:99999:7:::
alice@aradzhigalieva:/home/carol$ sudo passwd -n 30 -w 3 -x 90 carol
passwd: password changed.
alice@aradzhigalieva:/home/carol$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$QPpP3DDMLBPNkDZ8CYht01$1NR2X9NYZRqNK1VdCUHkrbR1N1b0EE2thD.WxWTFih2:20340:30:90:3:::
alice@aradzhigalieva:/home/carol$ grep alice /etc/passwd /etc/shadow /etc/group
/etc/passwd:alice:x:1001:1001:/home/alice:/bin/bash
grep: /etc/shadow: Permission denied
/etc/group:wheel:x:10:aradzhigalieva,alice
/etc/group:alice:x:1001:
alice@aradzhigalieva:/home/carol$ sudo grep alice /etc/passwd /etc/shadow /etc/group
/etc/passwd:alice:x:1001:1001:/home/alice:/bin/bash
/etc/shadow:alice:$y$j9T$MAYd5yVFcmU45xjyqiiUu.$cOY24iNaeDwqDPH2RkoH/ioA2yucoBUG9U6bxURa02D:20340:0:99999:7:::
/etc/group:wheel:x:10:aradzhigalieva,alice
/etc/group:alice:x:1001:
alice@aradzhigalieva:/home/carol$ sudo grep carol /etc/passwd /etc/shadow /etc/group
/etc/passwd:carol:x:1003:100:/home/carol:/bin/bash
/etc/shadow:carol:$y$j9T$QPpP3DDMLBPNkDZ8CYht01$1NR2X9NYZRqNK1VdCUHkrbR1N1b0EE2thD.WxWTFih2:20340:30:90:3:::
alice@aradzhigalieva:/home/carol$ █
```

Рис. 6: Настройка параметров пароля carol

```
alice@aradzhigalieva:/home/carol$  
alice@aradzhigalieva:/home/carol$  
alice@aradzhigalieva:/home/carol$ sudo usermod -aG main alice  
alice@aradzhigalieva:/home/carol$ sudo usermod -aG main bob  
alice@aradzhigalieva:/home/carol$ sudo usermod -aG third carol  
alice@aradzhigalieva:/home/carol$ id carol  
uid=1003(carol) gid=100(users) groups=100(users),1004(third)  
alice@aradzhigalieva:/home/carol$ id alice  
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel),1003(main)  
alice@aradzhigalieva:/home/carol$ id bob  
uid=1002(bob) gid=1002(bob) groups=1002(bob),1003(main)  
alice@aradzhigalieva:/home/carol$ █
```

Рис. 7: Добавление пользователей в группы и проверка членства

В ходе выполнения лабораторной работы я освоила основные приёмы администрирования пользователей и групп в Linux. Я создала несколько учётных записей, изменила параметры паролей, настроила группы и отредактировала конфигурационные файлы.

Эти действия позволили на практике закрепить знания о работе с файлами `/etc/passwd`, `/etc/shadow`, `/etc/group`, а также о настройке `sudo`. Полученный опыт имеет важное значение для управления многопользовательскими системами и обеспечения их безопасности.