

Лабораторная работа №1

Управление пользователями и группами

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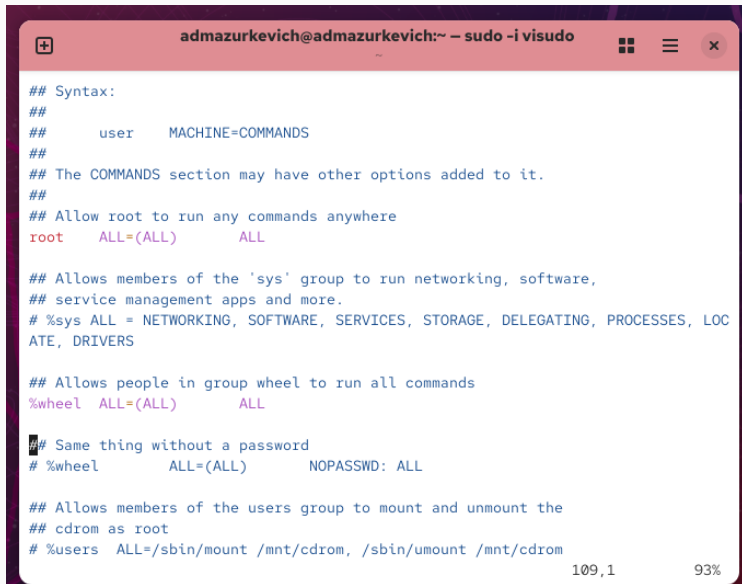
Цель работы

Закрепить навыки администрирования учётных записей пользователей и управления группами в ОС семейства Linux.

Ход выполнения

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

Рис. 1: Информация о пользователе и переход на root



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

## 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, LOC
ATE, 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

109,1 93%
```

```
admazurkevich@admazurkevich:~$  
admazurkevich@admazurkevich:~$ sudo -i useradd -G wheel alice  
admazurkevich@admazurkevich:~$ id alice  
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel)  
admazurkevich@admazurkevich:~$ sudo -i passwd alice  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: password updated successfully  
admazurkevich@admazurkevich:~$ su alice  
Password:
```

Рис. 3: Создание пользователей alice и bob

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

Рис. 4: Создание пользователей alice и bob

Настройка параметров по умолчанию



```
alice@admazurkevich:/home/admazurkevich - vim /etc/login....

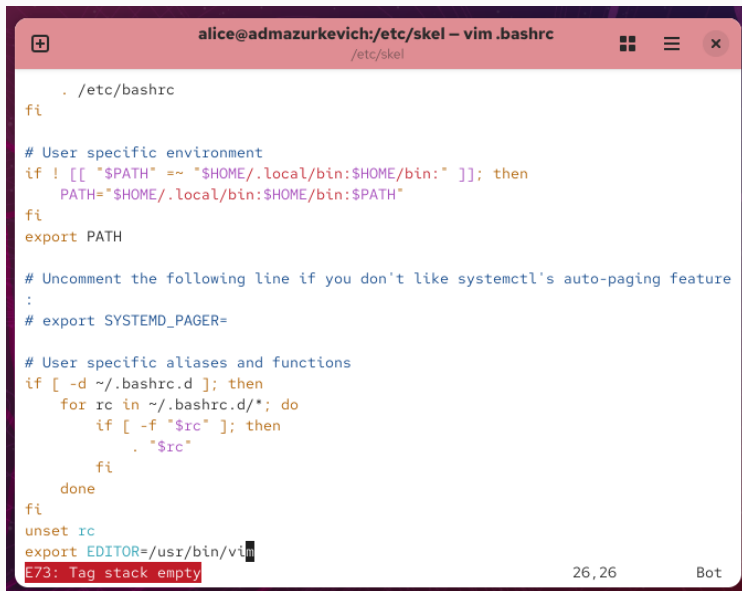
#USERDEL_CMD    /usr/sbin/userdel_local

#
# 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.
#

E73: Tag stack empty                                     280,18          94%
```

Настройка параметров по умолчанию



The screenshot shows a terminal window with a pink title bar. The title bar text is "alice@admazurkevich:/etc/skel – vim .bashrc". Below the title bar, the file path "/etc/skel" is displayed. The main area of the terminal shows the contents of the .bashrc file being edited in vim. The code is color-coded: comments are blue, keywords like "if", "fi", "for", "done", "unset", and "export" are orange, and variable names like "PATH", "rc", and "EDITOR" are purple. The code includes sections for user-specific environment, aliases, and functions. At the bottom of the terminal, a red status bar displays "E73: Tag stack empty".

```
alice@admazurkevich:/etc/skel – vim .bashrc
/etc/skel

. /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
E73: Tag stack empty
```

Создание пользователя carol

```
alice@admazurkevich:/etc/skel$  
alice@admazurkevich:/etc/skel$ su carol  
Password:  
carol@admazurkevich:/etc/skel$ id  
uid=1003(carol) gid=100(users) groups=100(users) context=unconfined_u:unconfined  
_r:unconfined_t:s0-s0:c0.c1023  
carol@admazurkevich:/etc/skel$ cd  
carol@admazurkevich:~$ ls -  
ls: cannot access '-': No such file or directory  
carol@admazurkevich:~$ ls -Al  
total 12  
-rw-r--r--. 1 carol users 18 Oct 29 2024 .bash_logout  
-rw-r--r--. 1 carol users 144 Oct 29 2024 .bash_profile  
-rw-r--r--. 1 carol users 549 Sep 10 14:06 .bashrc  
drwxr-xr-x. 2 carol users 6 Sep 10 14:05 Documents  
drwxr-xr-x. 4 carol users 39 Sep 9 20:21 .mozilla  
drwxr-xr-x. 2 carol users 6 Sep 10 14:05 Pictures  
carol@admazurkevich:~$ █
```

Рис. 7: Создание пользователя carol

Создание пользователя carol

```
alice@admazurkevich:/etc/skel$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$a8fn3WqzDTqbILqOCZLyg/$GAuMe6mm6t0sHbg3tDqLsZkXTXYXw.2BXo44BNF9Ni1:
20341:0:99999:7:::
alice@admazurkevich:/etc/skel$ sudo passwd -n 30 -w 3 -x 90 carol
passwd: password changed.
alice@admazurkevich:/etc/skel$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$a8fn3WqzDTqbILqOCZLyg/$GAuMe6mm6t0sHbg3tDqLsZkXTXYXw.2BXo44BNF9Ni1:
20341:30:90:3:::
alice@admazurkevich:/etc/skel$ sudo grep alice /etc/passwd /etc/shadow /etc/grou
p
/etc/passwd:alice:x:1001:1001::/home/alice:/bin/bash
/etc/shadow:alice:$y$j9T$FPtN4xH7jzs0w6cmMAtsr1$18mgEwvf9FurLkzQ.coYnMmR7FBZ6fIf
OrNrRHGCrN8:20341:0:99999:7:::
/etc/group:wheel:x:10:admazurkevich,alice
/etc/group:alice:x:1001:
alice@admazurkevich:/etc/skel$ sudo grep carol /etc/passwd /etc/shadow /etc/grou
p
/etc/passwd:carol:x:1003:100::/home/carol:/bin/bash
/etc/shadow:carol:$y$j9T$a8fn3WqzDTqbILqOCZLyg/$GAuMe6mm6t0sHbg3tDqLsZkXTXYXw.2B
Xo44BNF9Ni1:20341:30:90:3:::
alice@admazurkevich:/etc/skel$
```

Рис. 8: Проверка системных файлов

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

Рис. 9: Создание групп

Выводы по проделанной работе

В ходе работы были выполнены:

- проверка текущего пользователя и переход в режим root;
- создание новых пользователей и назначение паролей;
- настройка `/etc/login.defs` и шаблонов `/etc/skel`;
- изменение политики паролей с помощью `chage`;
- работа с группами и распределение пользователей.

Полученные навыки позволили освоить управление учётными записями и группами в Linux и закрепить основы администрирования многопользовательской системы.