

Презентация по лабораторной работе №2

Управление пользователями и группами

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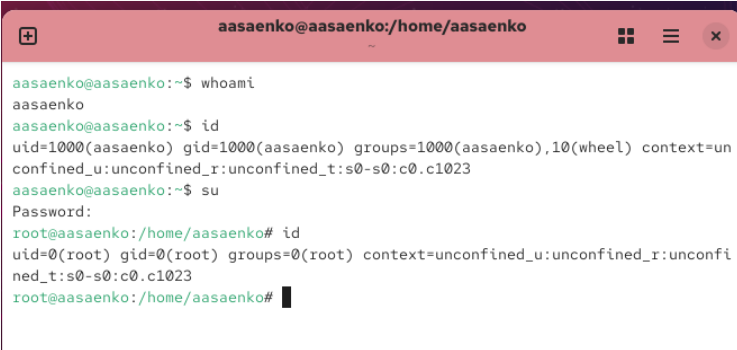
Цели и задачи работы

Закрепить навыки администрирования в Linux: создание и настройка учётных записей, управление группами, настройка паролей и работа с системными файлами.

- 1 Проверить текущего пользователя и перейти под root
- 2 Создать новых пользователей и настроить им пароли
- 3 Изменить параметры `/etc/login.defs` и содержимое `/etc/skel`
- 4 Настроить срок действия паролей с помощью `chage`
- 5 Создать группы и распределить пользователей

Ход выполнения работы

Переключение между пользователями




```
aasaenko@aasaenko:~/home/aasaenko

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

Рис. 1: Определение текущего пользователя и вход под root

Переключение между пользователями



```
## 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%

Создание пользователей

```
root@aasaenko:/home/aasaenko# sudo -i useradd -G wheel alice
root@aasaenko:/home/aasaenko# sudo -i passwd alice
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
root@aasaenko:/home/aasaenko# su alice
alice@aasaenko:/home/aasaenko$ sudo useradd bob
```

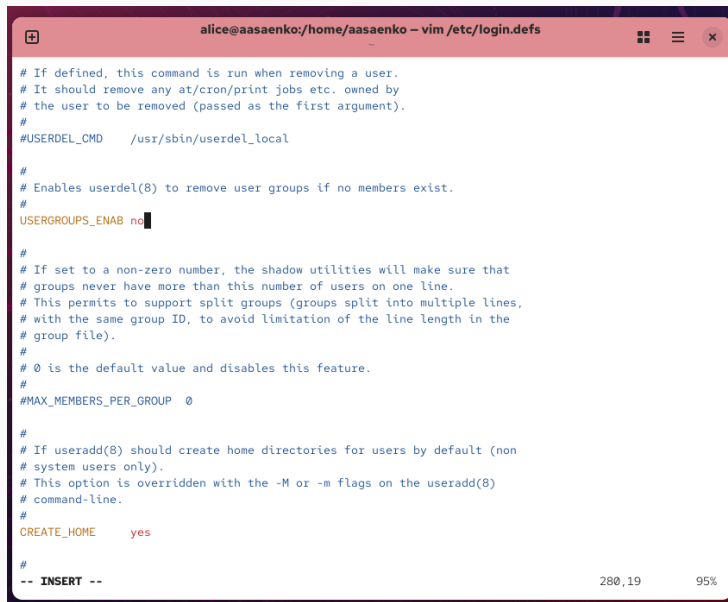
We trust you have received the usual lecture from the local System Administrator. It usually boils down to these three things:

- #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@aasaenko:/home/aasaenko$ sudo passwd bob
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
alice@aasaenko:/home/aasaenko$ id bob
uid=1002(bob) gid=1002(bob) groups=1002(bob)
alice@aasaenko:/home/aasaenko$ id alice
uid=1001(alice) gid=1001(alice) groups=1001(alice),10(wheel)
alice@aasaenko:/home/aasaenko$
```


Создание пользователей



```
alice@aasaenko:/home/aasaenko - vim /etc/login.defs

# If defined, this command is run when removing a user.
# 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

#
-- INSERT --
```

Настройка шаблонов и паролей

A screenshot of a terminal window with a pink title bar. The title bar text is 'alice@aasaenko:/etc/skel - vim .bashrc' and below it, in smaller text, is '/etc/skel'. The terminal shows the contents of the .bashrc file. The text is color-coded: comments are blue, keywords like 'if', 'fi', 'for', 'do', 'done', 'unset', 'export' are orange, and variable names like 'PATH', 'EDITOR' are purple. The code includes sections for sourcing global definitions, setting user-specific environment variables like PATH, and defining user-specific aliases and functions. The cursor is at the end of the line 'export EDITOR=/usr/bin/vim'.

```
# .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
~
~
~
```

Рис. 5: Изменение .bashrc в /etc/skel

```
root@aasaenko:/etc/skel#  
root@aasaenko:/etc/skel# su alice  
alice@aasaenko:/etc/skel$ sudo -i useradd carol  
[sudo] password for alice:  
alice@aasaenko:/etc/skel$ sudo passwd carol  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
passwd: password updated successfully  
alice@aasaenko:/etc/skel$ su carol  
Password:  
carol@aasaenko:/etc/skel$ id  
uid=1003(carol) gid=100(users) groups=100(users) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023  
carol@aasaenko:/etc/skel$ cd  
carol@aasaenko:~$ 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 12:18 .bashrc  
drwxr-xr-x. 2 carol users 6 Sep 10 12:15 Documents  
drwxr-xr-x. 4 carol users 39 Sep 9 20:07 .mozilla  
drwxr-xr-x. 2 carol users 6 Sep 10 12:15 Pictures  
carol@aasaenko:~$ a=
```

Рис. 6: Создание пользователя carol

Настройка шаблонов и паролей

```
carol@aasaenko:~$ su alice
Password:
alice@aasaenko:/home/carol$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$KjPJpTdy3SlQN8E7PvGDW.$pDM94vE/SrDVWt6a2VjyoQQ25Z7afE/AmjTPXyV/CP6:20341:0:99999:7:::
alice@aasaenko:/home/carol$ sudo passwd -n 30 -w 3 -x 90 carol
passwd: password changed.
alice@aasaenko:/home/carol$ sudo cat /etc/shadow | grep carol
carol:$y$j9T$KjPJpTdy3SlQN8E7PvGDW.$pDM94vE/SrDVWt6a2VjyoQQ25Z7afE/AmjTPXyV/CP6:20341:30:90:3:::
alice@aasaenko:/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$EKVkmFXn0UQFBUQQNBMB10$6UaJEB6qudo3iQGhn/vQ0jbJDLWQH1M87dynpd4Q.87:20341:0:99
999:7:::
/etc/group:wheel:x:10:aasaenko,alice
/etc/group:alice:x:1001:
alice@aasaenko:/home/carol$ sudo grep carol /etc/passwd /etc/shadow /etc/group
/etc/passwd:carol:x:1003:100::/home/carol:/bin/bash
/etc/shadow:carol:$y$j9T$KjPJpTdy3SlQN8E7PvGDW.$pDM94vE/SrDVWt6a2VjyoQQ25Z7afE/AmjTPXyV/CP6:20341:30:9
0:3:::
alice@aasaenko:/home/carol$
```

Рис. 7: Настройка параметров пароля carol

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

Рис. 8: Добавление пользователей в группы и проверка членства

Выводы по проделанной работе

В ходе лабораторной работы были освоены:

- работа с пользователями и группами в Linux;
- настройка паролей и их сроков действия;
- редактирование системных файлов (`/etc/login.defs`, `/etc/skel`, `/etc/sudoers`);
- проверка прав доступа и управление многопользовательской системой.