

Лабораторная работа №2

Дискреционное разграничение прав в Linux. Основные атрибуты.

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Цели и задачи

- Получение практических навыков работы в консоли с атрибутами файлов
- Закрепление теоретических основ дискреционного разграничения доступа в современных системах с открытым кодом на базе ОС Linux.

Результаты

```
[root@dastarikov ~]# useradd guest
[root@dastarikov ~]# passwd guest
Changing password for user guest.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
```

Рис. 1: Создание нового пользователя.

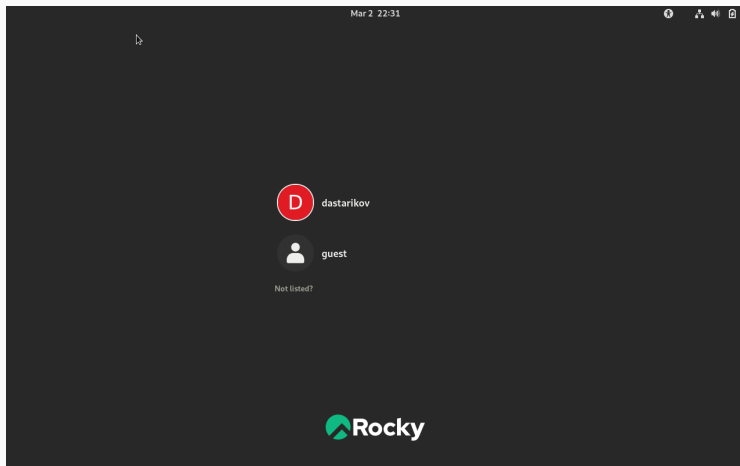


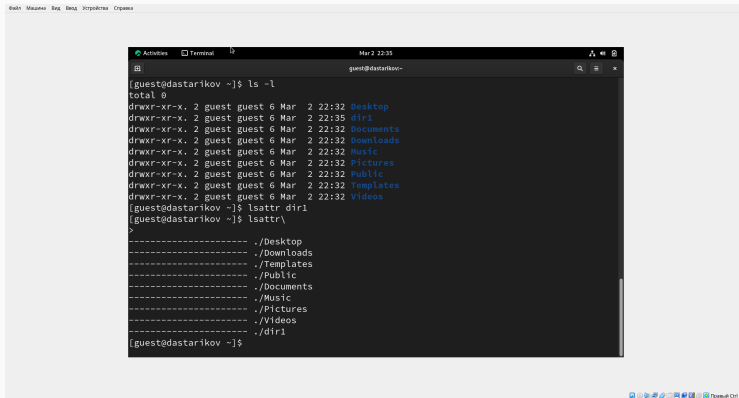
Рис. 2: Окно входа в систему с пользователям guest.

```
[guest@dastarikov ~]$ pwd
/home/guest
[guest@dastarikov ~]$ whoami
guest
[guest@dastarikov ~]$ id
uid=1001(guest) gid=1001(guest) groups=1001(guest) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[guest@dastarikov ~]$ groups
guest
```

Рис. 3: Определение домашней директории, uid и gid.

```
[guest@dastarikov ~]$ ls -l /home
total 8
drwx-----. 14 dastarikov dastarikov 4096 Feb 18 01:26 dastarikov
drwx-----. 14 guest      guest      4096 Mar  2 22:32 guest
[guest@dastarikov ~]$ lsattr /home
lsattr: Permission denied While reading flags on /home/dastarikov
----- /home/guest
[guest@dastarikov ~]$ mkdir dir1
[guest@dastarikov ~]$ ls -l
total 0
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Desktop
drwxr-xr-x. 2 guest guest 6 Mar  2 22:35 dir1
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Documents
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Downloads
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Music
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Pictures
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Public
drwxr-xr-x. 2 guest guest 6 Mar  2 22:32 Templates
```

Рис. 4: Расширенные атрибуты /home и создание dir1.



The screenshot shows a terminal window with the following commands and output:

```
[guest@dastarikov ~]$ ls -l
total 0
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Desktop
drwxr-xr-x. 2 guest guest 6 Mar 2 22:35 dir1
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Documents
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Downloads
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Music
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Pictures
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Public
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Templates
drwxr-xr-x. 2 guest guest 6 Mar 2 22:32 Videos

[guest@dastarikov ~]$ lsattr dir1
[guest@dastarikov ~]$ lsattr \
>
----- ./Desktop
----- ./Downloads
----- ./Templates
----- ./Public
----- ./Documents
----- ./Music
----- ./Pictures
----- ./Videos
----- ./dir1

[guest@dastarikov ~]$
```

Рис. 5: Права доступа и расширенные атрибуты dir1.

```
[guest@dastarikov ~]$ echo "test" > dir1/file1  
bash: dir1/file1: Permission denied
```

Рис. 6: Попытка создания файла.

Заполнение таблицы

```
[guest@dastarikov ~]$ rm dir1/file1
rm: cannot remove 'dir1/file1': Permission denied
[guest@dastarikov ~]$ echo "test" > dir1/file1
bash: dir1/file1: Permission denied
[guest@dastarikov ~]$ ls dir1
ls: cannot open directory 'dir1': Permission denied
[guest@dastarikov ~]$ mv dir1 dir2
[guest@dastarikov ~]$ ll
total 0
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Desktop
d------. 2 guest guest 19 Mar  2 22:40 dir2
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Documents
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Downloads
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Music
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Pictures
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Public
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Templates
drwxr-xr-x. 2 guest guest  6 Mar  2 22:32 Videos
[guest@dastarikov ~]$ mv dir2 dir1
[guest@dastarikov ~]$ mv dir1/file1 dir1/file2
mv: failed to access 'dir1/file2': Permission denied
[guest@dastarikov ~]$ chmod 000 dir1/file1
chmod: cannot access 'dir1/file1': Permission denied
[guest@dastarikov ~]$
```

```
[guest@dastarikov ~]$ chmod 000 dir1/file1
[guest@dastarikov ~]$ chmod 700 dir1
[guest@dastarikov ~]$ ll dir1
total 4
------. 1 guest guest 5 Mar  2 22:40 file1
[guest@dastarikov ~]$ chmod 700 file1
chmod: cannot access 'file1': No such file or directory
[guest@dastarikov ~]$ chmod 700 dir1/file1
[guest@dastarikov ~]$ touch dir1/file2
[guest@dastarikov ~]$ rm dir1/file2
[guest@dastarikov ~]$ touch dir1/file2
[guest@dastarikov ~]$ cat "test" > dir1/file2
cat: test: No such file or directory
[guest@dastarikov ~]$ cat test > dir1/file2
cat: test: No such file or directory
[guest@dastarikov ~]$ echo test > dir1/file2
[guest@dastarikov ~]$
```

Рис. 8: Проверка разрешенных действий над dir1 с правами 700.

ИТОГ

- В результате выполнения лабораторной работы получены практические навыки работы в консоли с атрибутами файлов.