

Лабораторная работа №3

Дисcretionное разграничение прав в Linux. Два пользователя

Ким М. А.

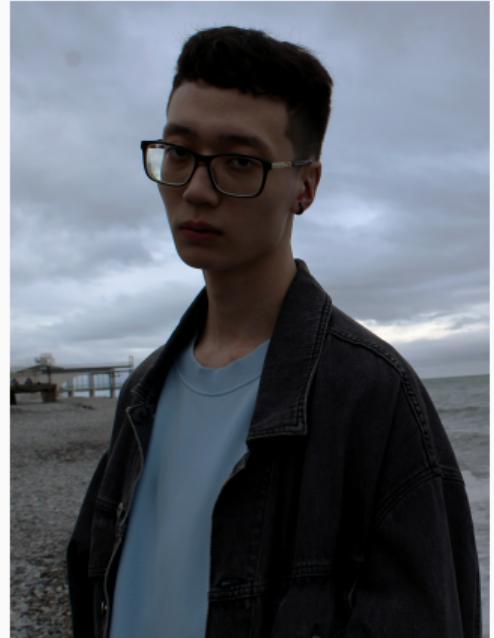
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Российский университет дружбы народов, Москва, Россия

Информация

Докладчик

- Ким Михаил Алексеевич
- студент уч. группы НФИбд-01-20
- Российский университет дружбы народов
- 1032201664@pfur.ru
- <https://github.com/exmanka>



Вводная часть

Актуальность

- Необходимость навыков работы с различными ОС, git, Markdown.

Объект и предмет исследования

- Операционная система Rocky Linux
- Атрибуты файлов и директорий в Linux
- Язык разметки Markdown

Цели и задачи

- Получение практических навыков работы в консоли с атрибутами файлов для групп пользователей.

Процесс выполнения работы

Выполнение заданий. 1

```
[makim@makim ~]$ sudo useradd guest2
[sudo] password for makim:
[makim@makim ~]$ sudo passwd guest2
Changing password for user guest2.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[makim@makim ~]$ gpasswd -a guest2 guest
gpasswd: Permission denied.
[makim@makim ~]$ sudo gpasswd -a guest2 guest
Adding user guest2 to group guest
[makim@makim ~]$
```

```
[makim@makim ~]$ su - guest
Password:
[guest@makim ~]$ ps
bash: ps: command not found...
[guest@makim ~]$ pwd
/home/guest
[guest@makim ~]$ id
uid=1001(guest) gid=1001(guest) groups=1001(guest) context=unconfined_u:unconfined_r:unconfined_t:s0@ic0.c1023
[guest@makim ~]$ id -G
guest
[guest@makim ~]$ id -G
1001
[guest@makim ~]$ groups guest
guest : guest
[guest@makim ~]$ groups guest2
guest2 : guest2 guest
[guest@makim ~]$ groups
guest
[guest@makim ~]$
```

```
[makim@makim ~]$ su - guest2
Password:
[guest2@makim ~]$ pwd
/home/guest
[guest2@makim ~]$ id
uid=1002(guest2) gid=1002(guest2) groups=1002(guest2),1001(guest) context=unconfined_u:unconfined_r:unconfined_t:s0@ic0.c1023
[guest2@makim ~]$ id -G
anon
[guest2@makim ~]$ id -G
1002 1001
[guest2@makim ~]$ groups guest
guest : guest
[guest2@makim ~]$ groups guest2
guest2 : guest2 guest
[guest2@makim ~]$ groups
guest2 guest
[guest2@makim ~]$
```

```
[guest@makim ~]$ cat /etc/group | grep guest
guest:x:1001:guest2
guest2:x:1002:
```

Выполнение заданий. 2

```
[guest2@makim ~]$ newgrp guest
```

```
[guest@makim ~]$ chmod g+rx /home/guest
[guest@makim ~]$ chmod 000 dirl
chmod: cannot access 'dirl': No such file or directory
[guest@makim ~]$ chmod 000 dirl
[guest@makim ~]$ ll
total 4
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Desktop
d-----. 2 guest guest    19 Sep 16 21:44 dirl
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Documents
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Downloads
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Music
drwxr-xr-x. 2 guest guest   100 Sep 16 21:21 Pictures
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Public
-rwx-----. 1 guest guest 1209 Sep 16 21:14 script_lab02.sh
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Templates
drwxr-xr-x. 2 guest guest    6 Sep 16 18:29 Videos
```

Bash-скрипт

```
[guest@makim ~]$ ll
total 4
-rwxr--r-x. 1 root root 1209 Sep 23 15:28 script_lab02.sh
[guest@makim ~]$ ./script_lab02.sh
starting makim's script for checking file usability:
Enter file! chmod current numeric code: 000
=====
1. Trying to create file...
touch: cannot touch '/home/guest/dir1/file_temp1': Permission denied
=====
2. Trying to remove file...
rm: cannot remove '/home/guest/dir1/file_temp1': Permission denied
=====
3. Trying to write to file...
./script_lab02.sh: line 14: /home/guest/dir1/file1: Permission denied
=====
4. Trying to read file...
cat: /home/guest/dir1/file1: Permission denied
=====
5. Trying to change directory...
./script_lab02.sh: line 20: cd: /home/guest/dir1: Permission denied
=====
6. Trying to view files in directory...
ls: cannot open directory '/home/guest/dir1': Permission denied
=====
7. Trying to rename file...
mv: failed to access '/home/guest/dir1/file_temp2': Permission denied
mv: failed to access '/home/guest/dir1/file1': Permission denied
=====
8. Trying to change attributes...
chmod: cannot access '/home/guest/dir1/file1': Permission denied
=====
```

```
[guest@makim ~]$ chmod 010 dir1
[guest@makim ~]$ ll
total 4
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Desktop
d-----X-. 2 guest guest 19 Sep 16 21:44 dir1
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 documents
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Downloads
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Music
drwxr--r-X. 2 guest guest 180 Sep 16 21:21 Pictures
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Public
-rwx-----. 1 guest guest 1209 Sep 16 21:14 script_lab02.sh
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Templates
drwxr--r-X. 2 guest guest 6 Sep 16 18:29 Videos
```

```
[guest@makim ~]$ ./script_lab02.sh
starting makim's script for checking file usability:
Enter file! chmod current numeric code: 070
=====
1. Trying to create file...
touch: cannot touch '/home/guest/dir1/file_temp1': Permission denied
=====
2. Trying to remove file...
rm: remove write-protected regular empty file '/home/guest/dir1/file_temp1'? y
=====
3. Trying to write to file...
./script_lab02.sh: line 14: /home/guest/dir1/file1: Permission denied
=====
4. Trying to read file...
cat: /home/guest/dir1/file1: Permission denied
=====
5. Trying to change directory...
cd: /home/guest/dir1/file1: Permission denied
=====
6. Trying to view files in directory...
ls: cannot open directory '/home/guest/dir1': Permission denied
=====
7. Trying to rename file...
mv: failed to move '/home/guest/dir1/file1' to '/home/guest/dir1/file_temp2': Permission denied
mv: cannot stat '/home/guest/dir1/file_temp2': No such file or directory
=====
8. Trying to change attributes...
chmod: changing permissions of '/home/guest/dir1/file1': Operation not permitted
=====
```

```
[guest@makim ~]$ ./script_lab02.sh
starting makim's script for checking file usability:
Enter file! chmod current numeric code: 070
=====
1. Trying to create file...
touch: cannot touch '/home/guest/dir1/file_temp1': File exists
=====
2. Trying to remove file...
rm: remove write-protected regular empty file '/home/guest/dir1/file_temp1'? y
=====
3. Trying to write to file...
./script_lab02.sh: line 14: /home/guest/dir1/file1: Permission denied
=====
4. Trying to read file...
cat: /home/guest/dir1/file1: Permission denied
=====
5. Trying to change directory...
cd: /home/guest/dir1/file1: Permission denied
=====
6. Trying to view files in directory...
total 4
drwxr--r-X. 1 guest guest 5 Sep 23 15:35 file1
=====
7. Trying to rename file...
mv: failed to move '/home/guest/dir1/file1' to '/home/guest/dir1/file_temp2': Permission denied
mv: cannot stat '/home/guest/dir1/file_temp2': No such file or directory
=====
8. Trying to change attributes...
chmod: changing permissions of '/home/guest/dir1/file1': Operation not permitted
=====
```

Результирующая таблица 1.

		Со-	Уда-				Про-	Пере-	Сме-
Пра-	Пра-	зда-	ле-	За-	Чте-	Сме-	смотр	име-	на
ва	ва	ние	ние	пись	ние	на	ф. в	нов.	атр.
д.	ф.	ф.	ф.	в ф.	ф.	д.	д.	ф.	ф.
d---	-----	-	-	-	-	-	-	-	-
(000)	(000)								
d--x-	-----	-	-	-	-	+	-	-	+
(010)	(000)								
d--	-----	-	-	-	-	-	-	-	-
w--	(000)								
(020)									
d--	-----	+	+	-	-	+	-	+	+
wx-	(000)								
(030)									

Результирующая таблица 2.

Операция	Мин. права на д.	Мин. права на ф.
Создание файла	d--wx- (030)	----- (000)
Удаление файла	d--wx- (030)	----- (000)
Чтение файла	d--x- (010)	--r-- (040)
Запись в файл	d--x- (010)	--w-- (020)
Переименование файла	d--wx- (030)	----- (000)
Создание поддиректории	d--wx- (030)	----- (000)
Удаление поддиректории	d--wx- (030)	----- (000)

Результаты

Результаты

- Выполнены все необходимые задания.

Вывод

Получены практические навыки работы в консоли с атрибутами файлов для групп пользователей.