

Daffania Iffat Laurensyah

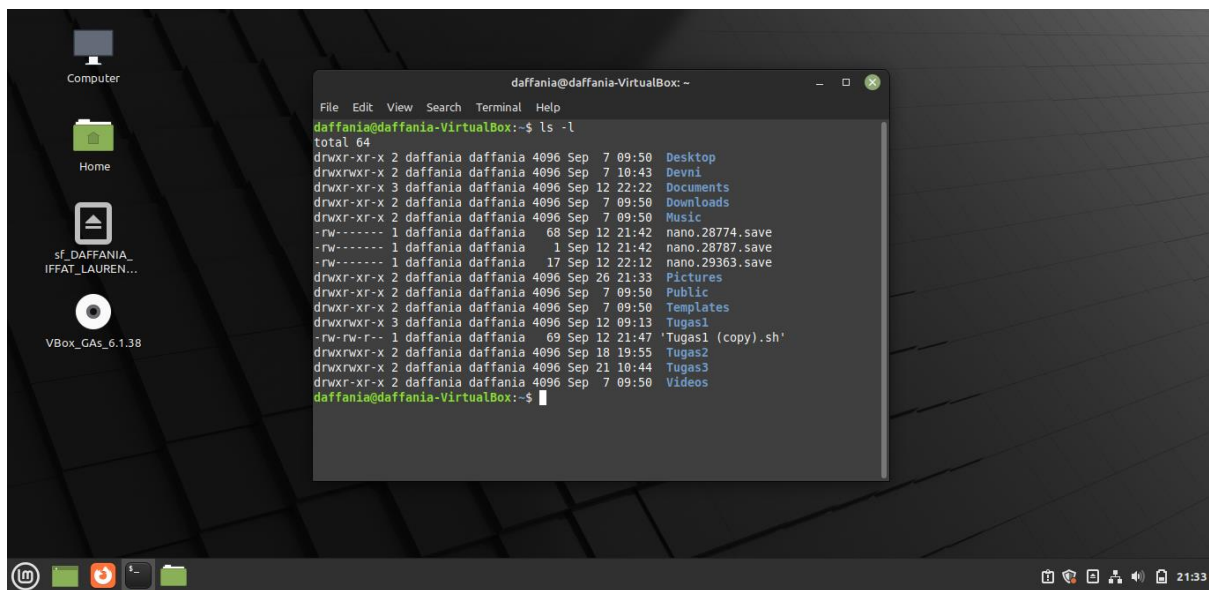
21083010123

Tugas 3 Sistem Operasi

Manipulasi Hak Akses

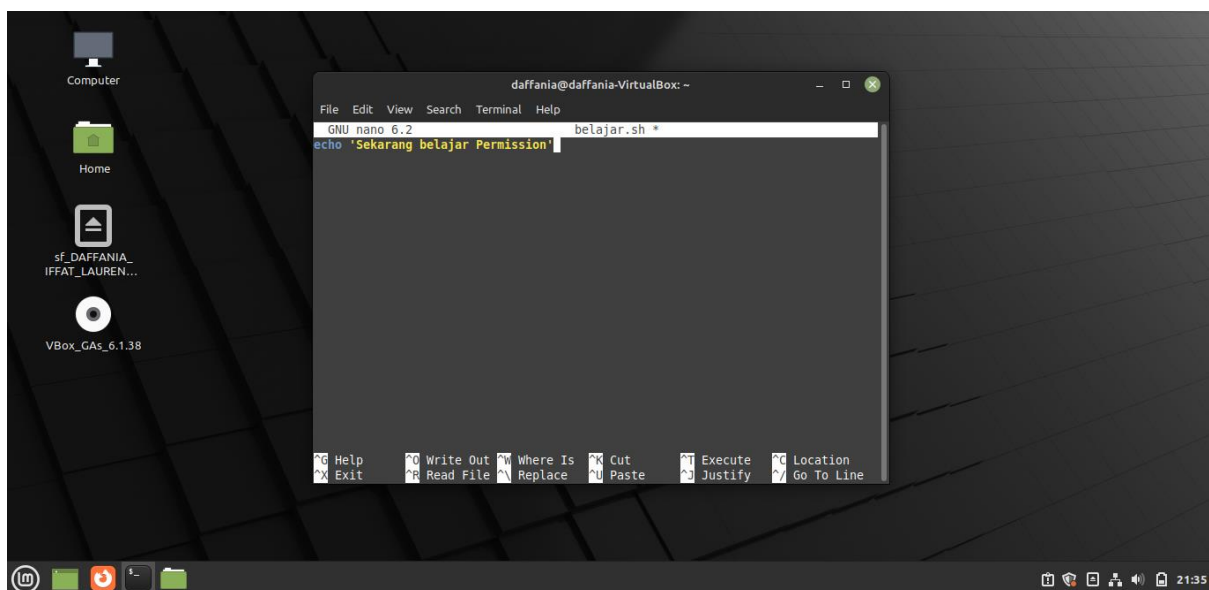
1. Melihat permission dan akses berkas

Menggunakan `ls -l` untuk melihat permission dan akses berkas apakah berkas tersebut bisa di baca, tulis dan eksekusi

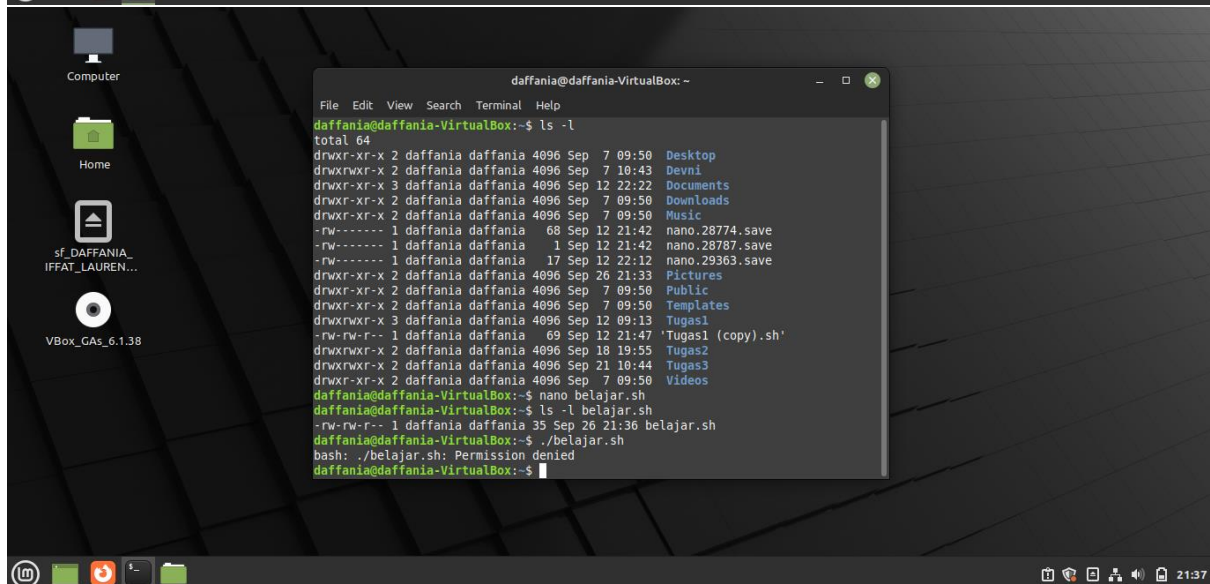
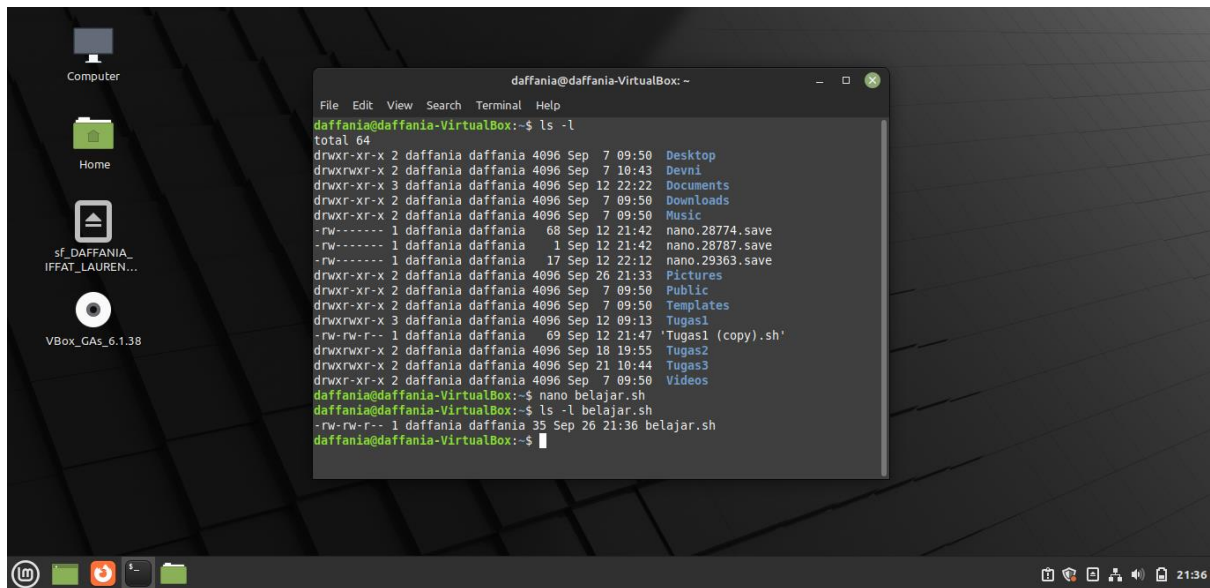


```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
daffania@daffania-VirtualBox:~$ ls -l  
total 64  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Desktop  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 10:43 Devni  
drwxr-xr-x 3 daffania daffania 4096 Sep 12 22:22 Documents  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Downloads  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Music  
-rw-r--r-- 1 daffania daffania 68 Sep 12 21:42 nano.28774.save  
-rw-r--r-- 1 daffania daffania 1 Sep 12 21:42 nano.28787.save  
-rw-r--r-- 1 daffania daffania 17 Sep 12 22:12 nano.29363.save  
drwxr-xr-x 2 daffania daffania 4096 Sep 26 21:33 Pictures  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Public  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Templates  
drwxr-xr-x 3 daffania daffania 4096 Sep 12 09:13 Tugas1  
-rw-r--r-- 1 daffania daffania 69 Sep 12 21:47 'Tugas1 (copy).sh'  
drwxr-xr-x 2 daffania daffania 4096 Sep 18 19:55 Tugas2  
drwxr-xr-x 2 daffania daffania 4096 Sep 21 10:44 Tugas3  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Videos  
daffania@daffania-VirtualBox:~$
```

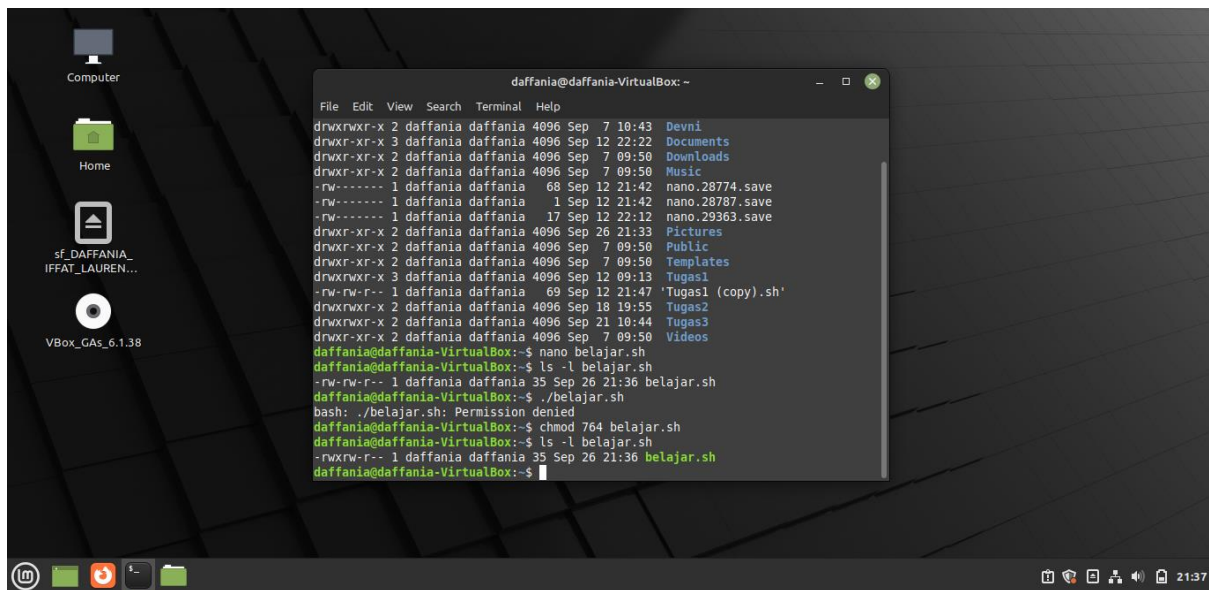
Membuat file belajar.sh lalu melihat akses file belajar.sh dengan `ls -l belajar.sh`



```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
GNU nano 6.2 belajar.sh *  
echo 'Sekarang belajar Permission'  
^H Help ^O Write Out ^W Where Is ^K Cut ^J Execute ^Q Location  
^X Exit ^R Read File ^N Replace ^U Paste ^_ Justify ^_ Go To Line
```



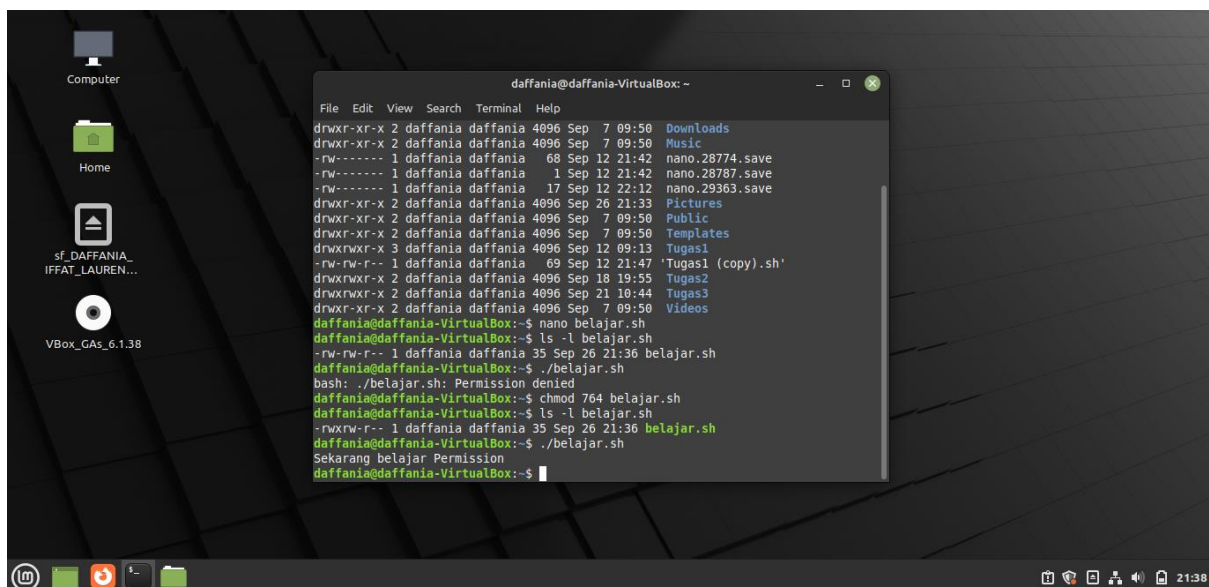
Mengubah akses file oleh owner dengan format 764 sesuai dengan binary yang sudah ditentukan



The screenshot shows a Linux desktop with a terminal window open. The terminal displays the following commands and output:

```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
drwxrwxr-x 2 daffania daffania 4096 Sep  7 10:43 Devni  
drwxr-xr-x 3 daffania daffania 4096 Sep 12 22:22 Documents  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Downloads  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Music  
-rw-r----- 1 daffania daffania  68 Sep 12 21:42 nano.28774.save  
-rw-r----- 1 daffania daffania   1 Sep 12 21:42 nano.28787.save  
-rw-r----- 1 daffania daffania  17 Sep 12 22:12 nano.29363.save  
drwxr-xr-x 2 daffania daffania 4096 Sep 26 21:33 Pictures  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Public  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Templates  
drwxrwxr-x 3 daffania daffania 4096 Sep 12 09:13 Tugas1  
-rw-rw-r-- 1 daffania daffania  69 Sep 12 21:47 'Tugas1 (copy).sh'  
drwxrwxr-x 2 daffania daffania 4096 Sep 18 19:55 Tugas2  
drwxrwxr-x 2 daffania daffania 4096 Sep 21 10:44 Tugas3  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Videos  
daffania@daffania-VirtualBox:~$ nano belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rw-rw-r-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ ./belajar.sh  
bash: ./belajar.sh: Permission denied  
daffania@daffania-VirtualBox:~$ chmod 764 belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrw-r-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$
```

Mencoba mengakses file tersebut setelah diubah permission nya, dengan ./belajar.sh sehingga file sudah bisa di execute

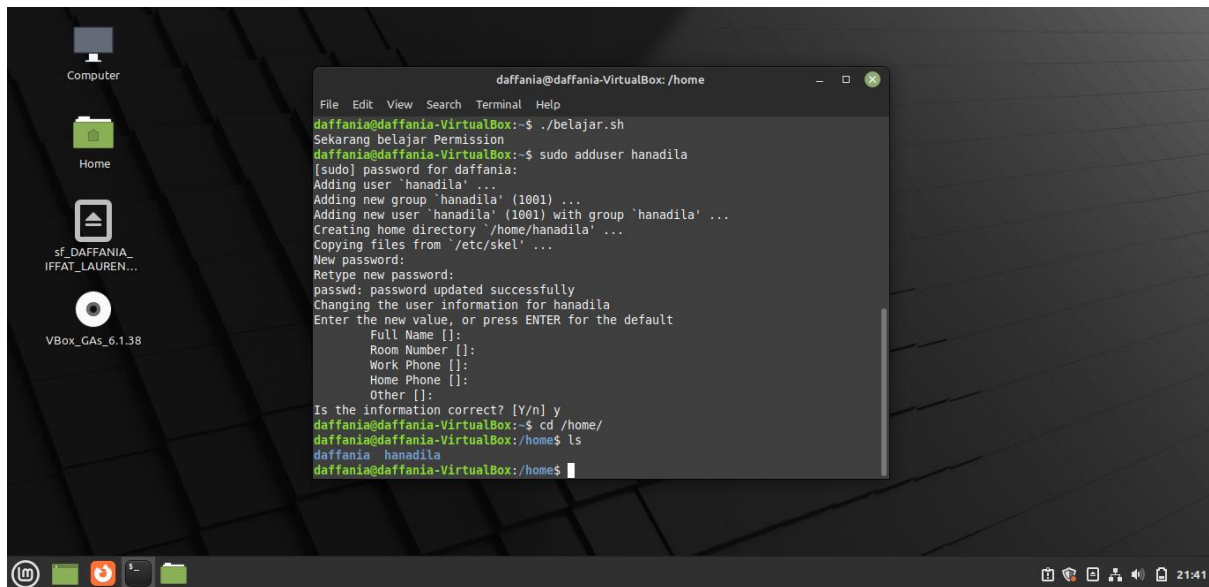


The screenshot shows a Linux desktop with a terminal window open. The terminal displays the following commands and output:

```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Downloads  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Music  
-rw-r----- 1 daffania daffania  68 Sep 12 21:42 nano.28774.save  
-rw-r----- 1 daffania daffania   1 Sep 12 21:42 nano.28787.save  
-rw-r----- 1 daffania daffania  17 Sep 12 22:12 nano.29363.save  
drwxr-xr-x 2 daffania daffania 4096 Sep 26 21:33 Pictures  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Public  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Templates  
drwxrwxr-x 3 daffania daffania 4096 Sep 12 09:13 Tugas1  
-rw-rw-r-- 1 daffania daffania  69 Sep 12 21:47 'Tugas1 (copy).sh'  
drwxrwxr-x 2 daffania daffania 4096 Sep 18 19:55 Tugas2  
drwxrwxr-x 2 daffania daffania 4096 Sep 21 10:44 Tugas3  
drwxr-xr-x 2 daffania daffania 4096 Sep  7 09:50 Videos  
daffania@daffania-VirtualBox:~$ nano belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rw-rw-r-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ ./belajar.sh  
bash: ./belajar.sh: Permission denied  
daffania@daffania-VirtualBox:~$ chmod 764 belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrw-r-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ ./belajar.sh  
Sekarang belajar Permission  
daffania@daffania-VirtualBox:~$
```

2. Management User

Membuat user pertama dengan command `sudo adduser` (nama user yg diinginkan). Lalu di cek keberadaannya dengan `cd /home/` kemudian `ls`



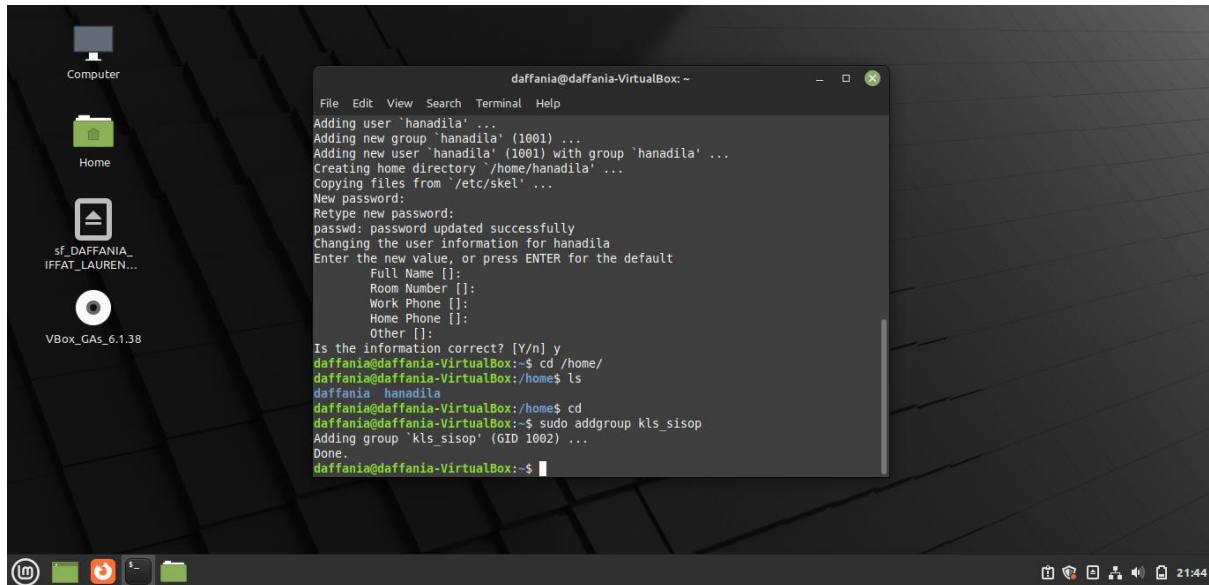
The screenshot shows a Linux desktop environment with a dark background. On the left side, there are icons for 'Computer', 'Home', and a file named 'sf_DAFFANIA_ IFFAT_LAUREN...'. At the bottom left, there is a CD icon labeled 'VBox_GAs_6.1.38'. A terminal window is open in the center, titled 'daffania@daffania-VirtualBox: /home'. The terminal shows the following commands and output:

```
daffania@daffania-VirtualBox:~$ ./belajar.sh
Sekarang belajar Permission
daffania@daffania-VirtualBox:~$ sudo adduser hanadila
[sudo] password for daffania:
Adding user 'hanadila' ...
Adding new group 'hanadila' (1001) ...
Adding new user 'hanadila' (1001) with group 'hanadila' ...
Creating home directory '/home/hanadila' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for hanadila
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
daffania@daffania-VirtualBox:~$ cd /home/
daffania@daffania-VirtualBox:/home$ ls
daffania  hanadila
daffania@daffania-VirtualBox:/home$
```

The terminal window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The desktop environment includes a taskbar at the bottom with icons for a terminal, a file manager, and other applications. The system clock in the bottom right corner shows '21:41'.

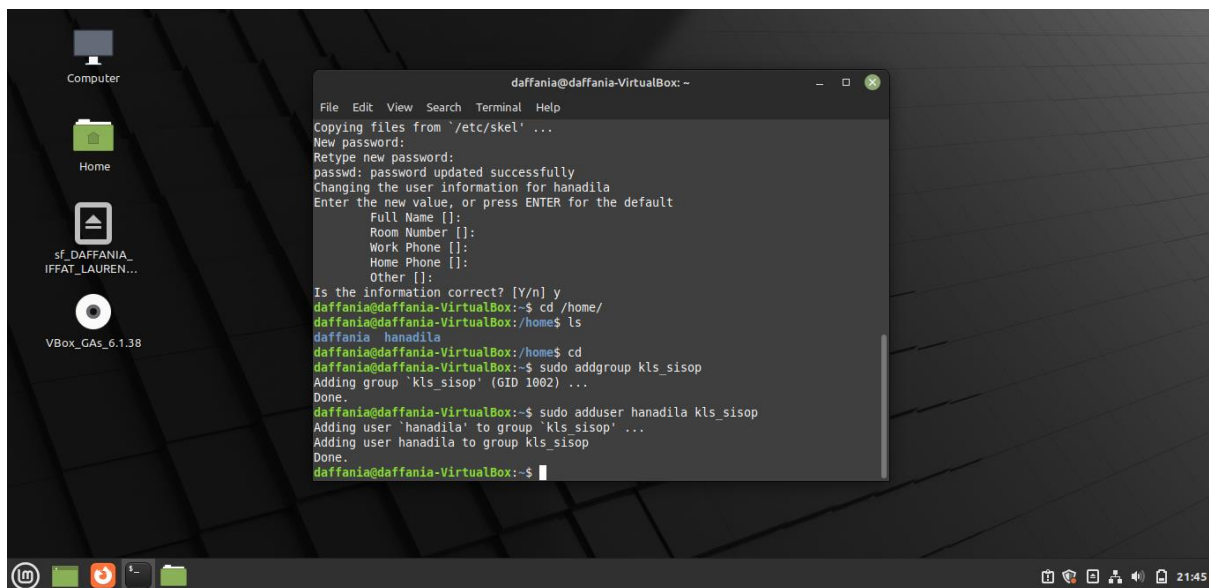
3. Management Group

Membuat sebuah group dengan command `sudo addgroup` (nama group yang diinginkan)



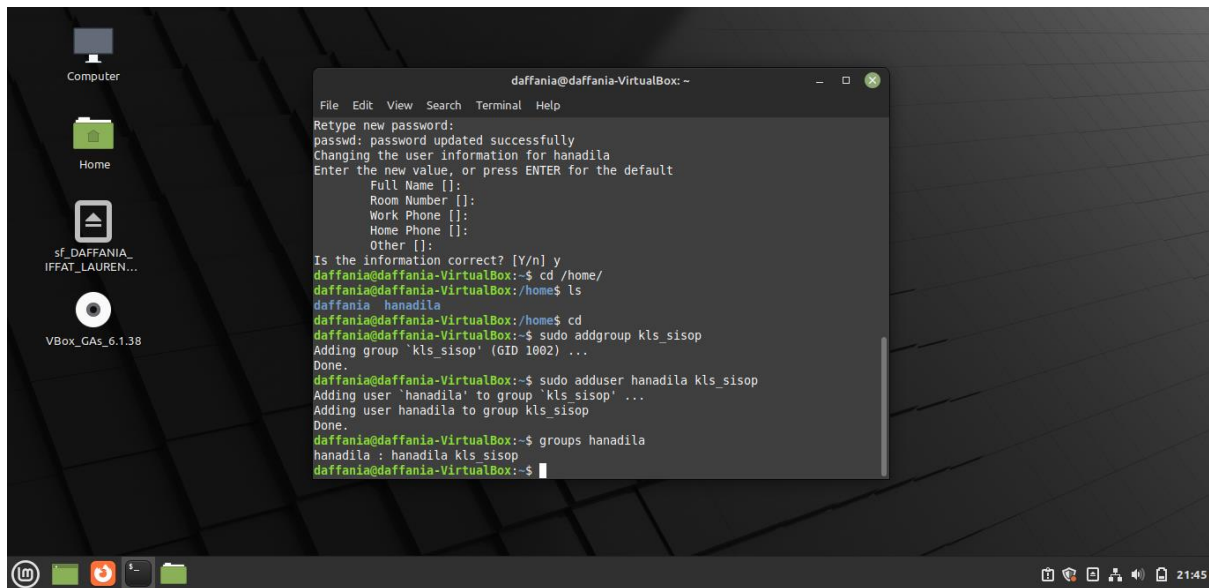
```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
Adding user 'hanadila' ...  
Adding new group 'hanadila' (1001) ...  
Adding new user 'hanadila' (1001) with group 'hanadila' ...  
Creating home directory '/home/hanadila' ...  
Copying files from '/etc/skel' ...  
New password:  
Retype new password:  
passwd: password updated successfully  
Changing the user information for hanadila  
Enter the new value, or press ENTER for the default  
Full Name []:  
Room Number []:  
Work Phone []:  
Home Phone []:  
Other []:  
Is the information correct? [Y/n] y  
daffania@daffania-VirtualBox:~$ cd /home/  
daffania@daffania-VirtualBox:/home$ ls  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$
```

Memasukkan user pertama yang telah di tambahkan kedalam group yang telah di buat dengan command `sudo adduser` (nama user pertama) (nama group)



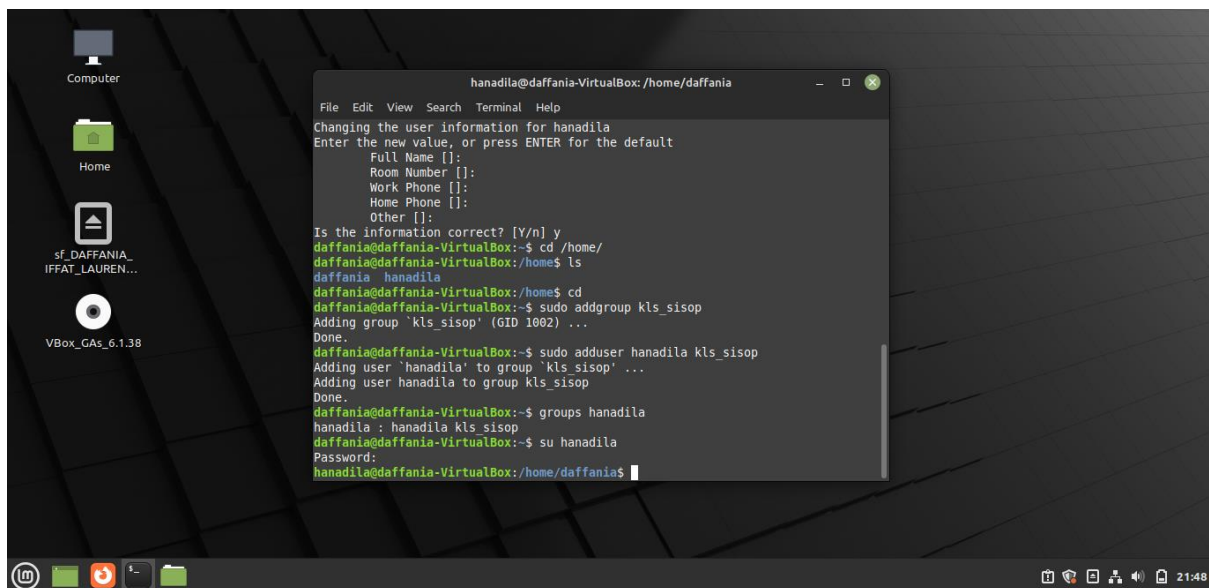
```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
Copying files from '/etc/skel' ...  
New password:  
Retype new password:  
passwd: password updated successfully  
Changing the user information for hanadila  
Enter the new value, or press ENTER for the default  
Full Name []:  
Room Number []:  
Work Phone []:  
Home Phone []:  
Other []:  
Is the information correct? [Y/n] y  
daffania@daffania-VirtualBox:~$ cd /home/  
daffania@daffania-VirtualBox:/home$ ls  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$ sudo adduser hanadila kls_sisop  
Adding user 'hanadila' to group 'kls_sisop' ...  
Adding user hanadila to group kls_sisop  
Done.  
daffania@daffania-VirtualBox:~$
```


Mengecek user pertama di group apakah user pertama tersebut berada



```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
Retype new password:  
passwd: password updated successfully  
Changing the user information for hanadila  
Enter the new value, or press ENTER for the default  
Full Name []:  
Room Number []:  
Work Phone []:  
Home Phone []:  
Other []:  
Is the information correct? [Y/n] y  
daffania@daffania-VirtualBox:~$ cd /home/  
daffania@daffania-VirtualBox:/home$ ls  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$ sudo adduser hanadila kls_sisop  
Adding user 'hanadila' to group 'kls_sisop' ...  
Adding user hanadila to group kls_sisop  
Done.  
daffania@daffania-VirtualBox:~$ groups hanadila  
hanadila : hanadila kls_sisop  
daffania@daffania-VirtualBox:~$
```

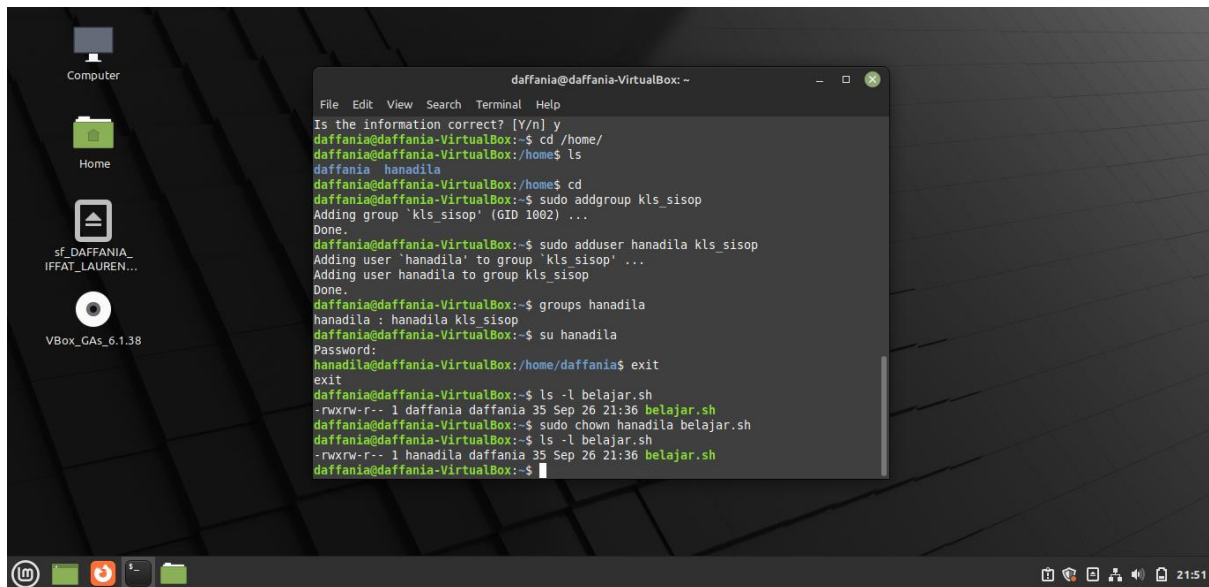
Akan terlihat bahwa hanadila masuk kedalam group kls_sisop



```
hanadila@daffania-VirtualBox: /home/daffania  
File Edit View Search Terminal Help  
Changing the user information for hanadila  
Enter the new value, or press ENTER for the default  
Full Name []:  
Room Number []:  
Work Phone []:  
Home Phone []:  
Other []:  
Is the information correct? [Y/n] y  
daffania@daffania-VirtualBox:~$ cd /home/  
daffania@daffania-VirtualBox:/home$ ls  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$ sudo adduser hanadila kls_sisop  
Adding user 'hanadila' to group 'kls_sisop' ...  
Adding user hanadila to group kls_sisop  
Done.  
daffania@daffania-VirtualBox:~$ groups hanadila  
hanadila : hanadila kls_sisop  
daffania@daffania-VirtualBox:~$ su hanadila  
Password:  
hanadila@daffania-VirtualBox:/home/daffania$
```

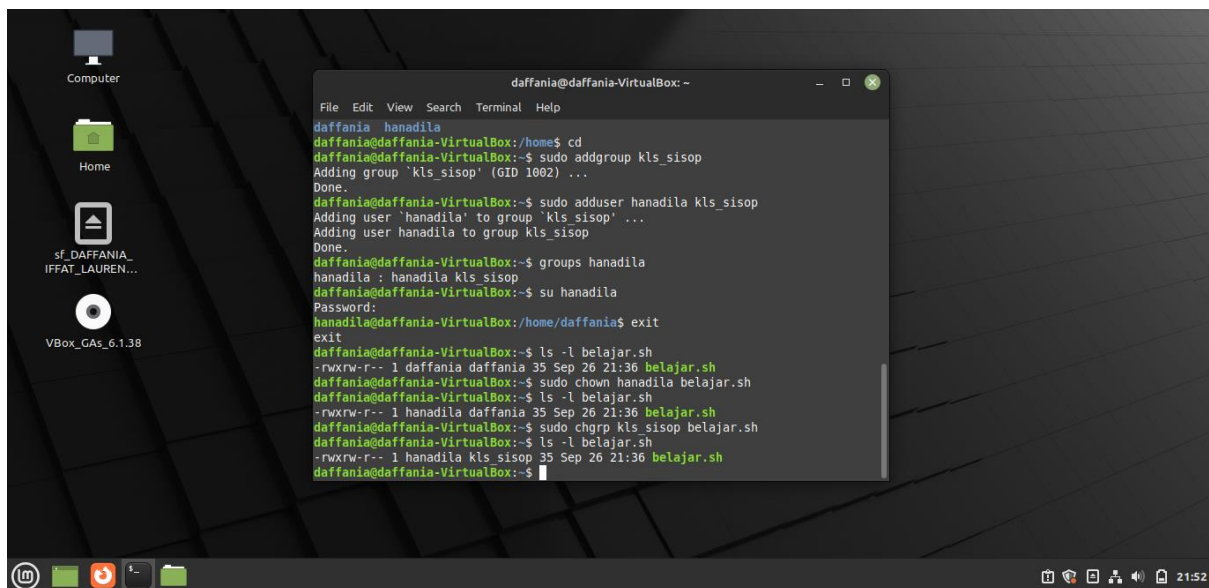
4. Mengubah owner

Mengubah owner dan group sebuah file belajar.sh dengan command sudo chown/chgrp (nama user pertama) (nama file)



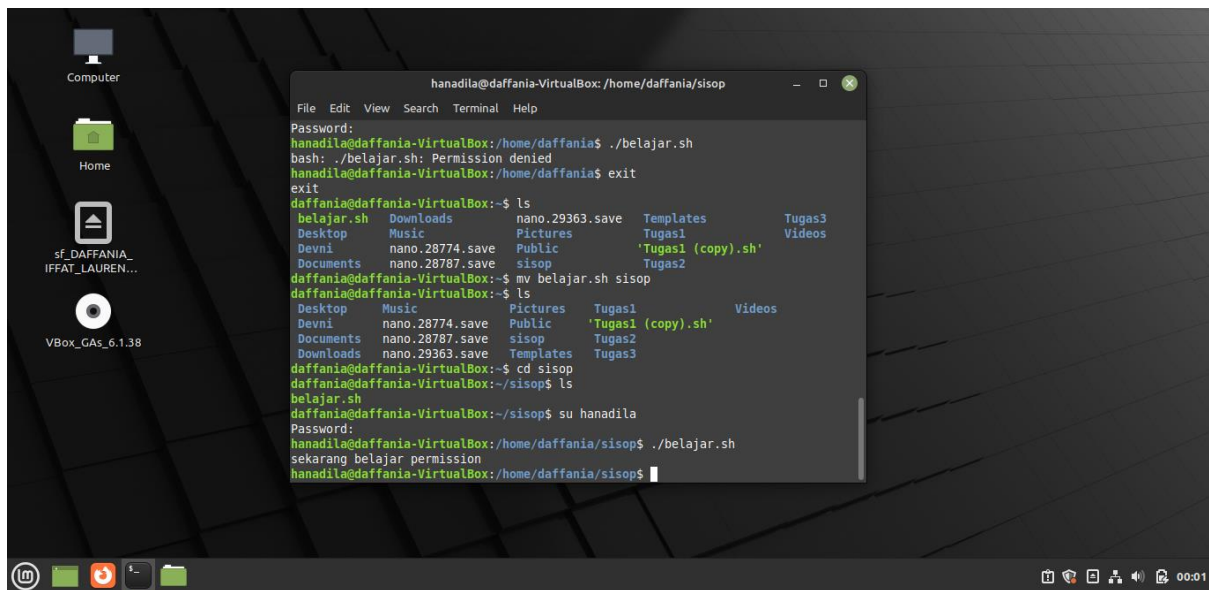
```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
Is the information correct? [Y/n] y  
daffania@daffania-VirtualBox:~$ cd /home/  
daffania@daffania-VirtualBox:/home$ ls  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$ sudo adduser hanadila kls_sisop  
Adding user 'hanadila' to group 'kls_sisop' ...  
Adding user hanadila to group kls_sisop  
Done.  
daffania@daffania-VirtualBox:~$ groups hanadila  
hanadila : hanadila kls_sisop  
daffania@daffania-VirtualBox:~$ su hanadila  
Password:  
hanadila@daffania-VirtualBox:/home/daffania$ exit  
exit  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrwxr-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ sudo chown hanadila belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrwxr-- 1 hanadila daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$
```

user pertama telah berhasil dijadikan owner untuk file belajar.sh

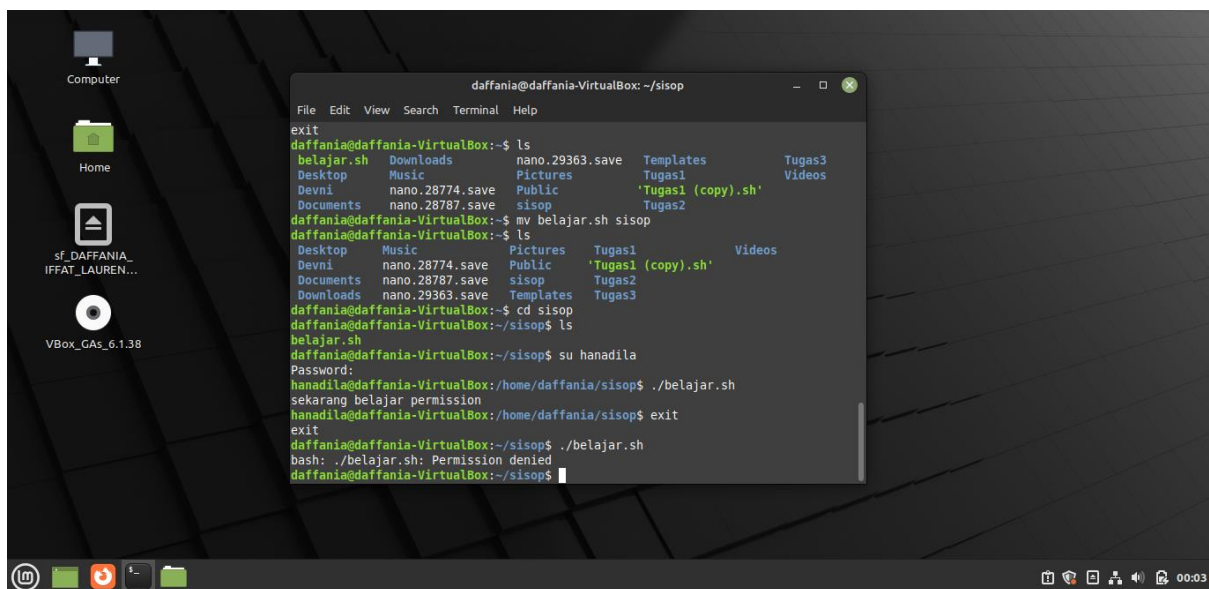


```
daffania@daffania-VirtualBox: ~  
File Edit View Search Terminal Help  
daffania hanadila  
daffania@daffania-VirtualBox:/home$ cd  
daffania@daffania-VirtualBox:~$ sudo addgroup kls_sisop  
Adding group 'kls_sisop' (GID 1002) ...  
Done.  
daffania@daffania-VirtualBox:~$ sudo adduser hanadila kls_sisop  
Adding user 'hanadila' to group 'kls_sisop' ...  
Adding user hanadila to group kls_sisop  
Done.  
daffania@daffania-VirtualBox:~$ groups hanadila  
hanadila : hanadila kls_sisop  
daffania@daffania-VirtualBox:~$ su hanadila  
Password:  
hanadila@daffania-VirtualBox:/home/daffania$ exit  
exit  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrwxr-- 1 daffania daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ sudo chown hanadila belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrwxr-- 1 hanadila daffania 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$ sudo chgrp kls_sisop belajar.sh  
daffania@daffania-VirtualBox:~$ ls -l belajar.sh  
-rwxrwxr-- 1 hanadila kls_sisop 35 Sep 26 21:36 belajar.sh  
daffania@daffania-VirtualBox:~$
```

Memeriksa apakah belajar.sh masih bisa diakses oleh owner pertama. Lalu setelah itu masuk ke dalam user yang telah dibuat dengan su (nama user)

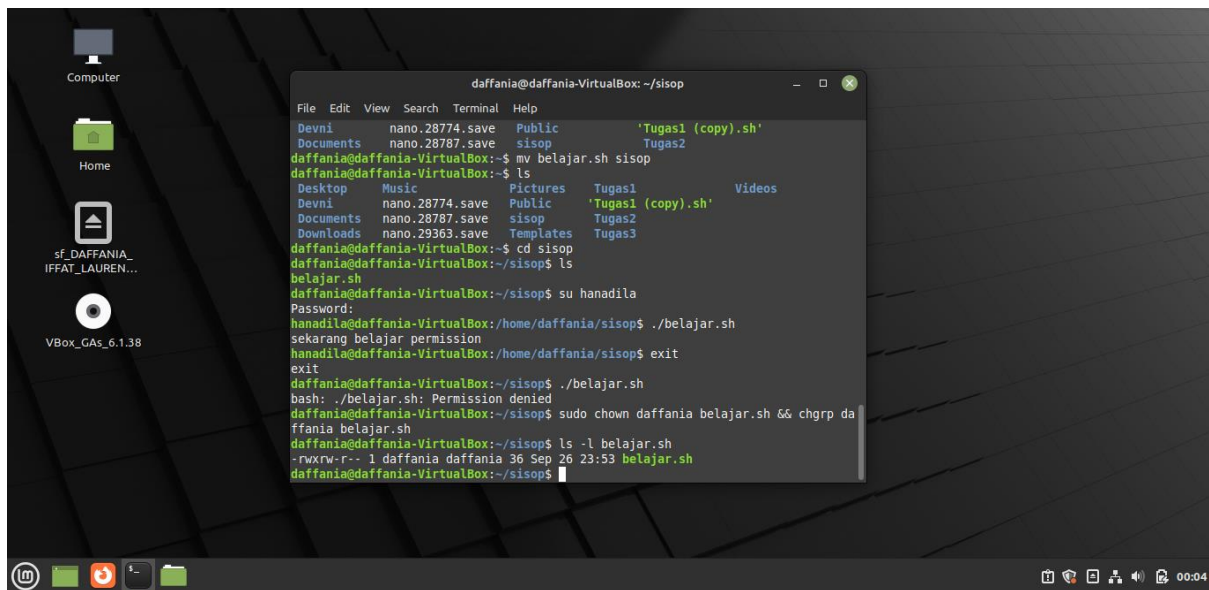


```
hanadila@daffania-VirtualBox: /home/daffania/sisop
File Edit View Search Terminal Help
Password:
hanadila@daffania-VirtualBox:/home/daffania$ ./belajar.sh
bash: ./belajar.sh: Permission denied
hanadila@daffania-VirtualBox:/home/daffania$ exit
exit
daffania@daffania-VirtualBox:~$ ls
belajar.sh  Downloads  nano.29363.save  Templates  Tugas3
Desktop    Music      Pictures        Tugas1     Videos
Devni      nano.28774.save  Public         'Tugas1 (copy).sh'
Documents  nano.28787.save  sisop         Tugas2
daffania@daffania-VirtualBox:~$ mv belajar.sh sisop
daffania@daffania-VirtualBox:~$ ls
Desktop  Music  Pictures  Tugas1  Videos
Devni    nano.28774.save  Public  'Tugas1 (copy).sh'
Documents nano.28787.save  sisop   Tugas2
Downloads nano.29363.save  Templates  Tugas3
daffania@daffania-VirtualBox:~$ cd sisop
daffania@daffania-VirtualBox:~/sisop$ ls
belajar.sh
daffania@daffania-VirtualBox:~/sisop$ su hanadila
Password:
hanadila@daffania-VirtualBox:/home/daffania/sisop$ ./belajar.sh
sekarang belajar permission
hanadila@daffania-VirtualBox:/home/daffania/sisop$
```



```
daffania@daffania-VirtualBox: ~/sisop
File Edit View Search Terminal Help
exit
daffania@daffania-VirtualBox:~$ ls
belajar.sh  Downloads  nano.29363.save  Templates  Tugas3
Desktop    Music      Pictures        Tugas1     Videos
Devni      nano.28774.save  Public         'Tugas1 (copy).sh'
Documents  nano.28787.save  sisop         Tugas2
daffania@daffania-VirtualBox:~$ mv belajar.sh sisop
daffania@daffania-VirtualBox:~$ ls
Desktop  Music  Pictures  Tugas1  Videos
Devni    nano.28774.save  Public  'Tugas1 (copy).sh'
Documents nano.28787.save  sisop   Tugas2
Downloads nano.29363.save  Templates  Tugas3
daffania@daffania-VirtualBox:~$ cd sisop
daffania@daffania-VirtualBox:~/sisop$ ls
belajar.sh
daffania@daffania-VirtualBox:~/sisop$ su hanadila
Password:
hanadila@daffania-VirtualBox:/home/daffania/sisop$ ./belajar.sh
sekarang belajar permission
hanadila@daffania-VirtualBox:/home/daffania/sisop$ exit
exit
daffania@daffania-VirtualBox:~/sisop$ ./belajar.sh
bash: ./belajar.sh: Permission denied
daffania@daffania-VirtualBox:~/sisop$
```

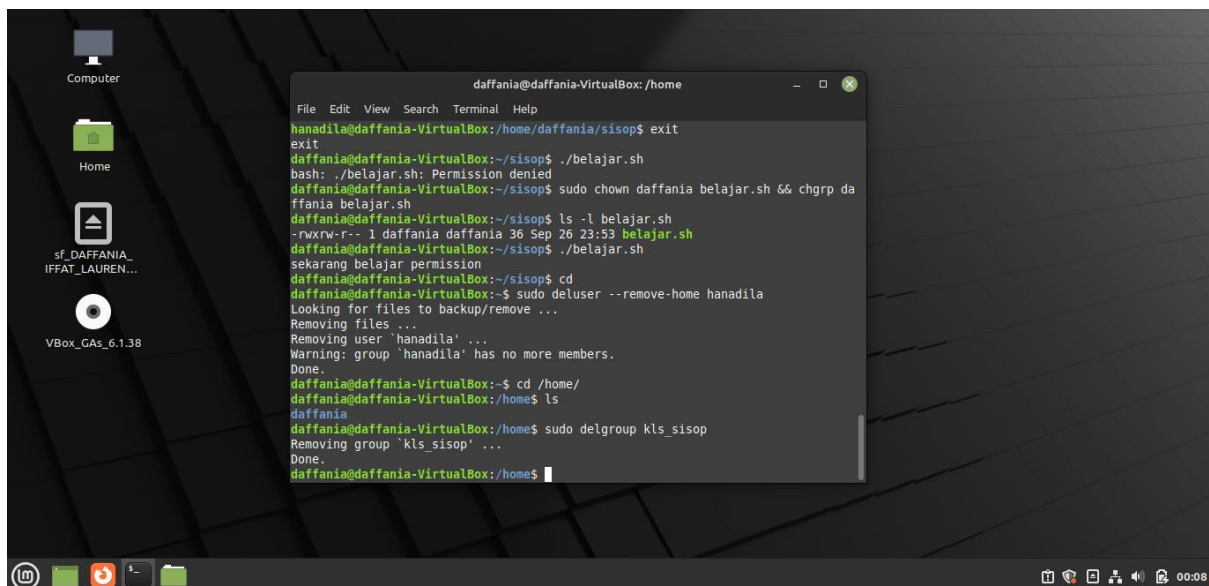

File belajar.sh telah berhasil dijadikan owner dan dapat mengexecute file di dalam akses user pertama.



```
daffania@daffania-VirtualBox: ~/sisop
File Edit View Search Terminal Help
Devni nano.28774.save Public 'Tugas1 (copy).sh'
Documents nano.28787.save sisop Tugas2
daffania@daffania-VirtualBox:~$ mv belajar.sh sisop
daffania@daffania-VirtualBox:~$ ls
Desktop Music Pictures Tugas1 Videos
Devni nano.28774.save Public 'Tugas1 (copy).sh'
Documents nano.28787.save sisop Tugas2
Downloads nano.29363.save Templates Tugas3
daffania@daffania-VirtualBox:~$ cd sisop
daffania@daffania-VirtualBox:~/sisop$ ls
belajar.sh
daffania@daffania-VirtualBox:~/sisop$ su hanadila
Password:
hanadila@daffania-VirtualBox:/home/daffania/sisop$ ./belajar.sh
sekarang belajar permission
hanadila@daffania-VirtualBox:/home/daffania/sisop$ exit
exit
daffania@daffania-VirtualBox:~/sisop$ ./belajar.sh
bash: ./belajar.sh: Permission denied
daffania@daffania-VirtualBox:~/sisop$ sudo chown daffania belajar.sh && chgrp daffania belajar.sh
daffania@daffania-VirtualBox:~/sisop$ ls -l belajar.sh
-rwxrwx-- 1 daffania daffania 36 Sep 26 23:53 belajar.sh
daffania@daffania-VirtualBox:~/sisop$
```

5. Menghapus user dan group

Untuk menghapus user maupun group dapat menggunakan command `sudo deluser --remove-home (nama user)` dan `sudo delgroup (nama group)`



```
daffania@daffania-VirtualBox: /home
File Edit View Search Terminal Help
hanadila@daffania-VirtualBox:/home/daffania/sisop$ exit
exit
daffania@daffania-VirtualBox:~/sisop$ ./belajar.sh
bash: ./belajar.sh: Permission denied
daffania@daffania-VirtualBox:~/sisop$ sudo chown daffania belajar.sh && chgrp daffania belajar.sh
daffania@daffania-VirtualBox:~/sisop$ ls -l belajar.sh
-rwxrwx-- 1 daffania daffania 36 Sep 26 23:53 belajar.sh
daffania@daffania-VirtualBox:~/sisop$ ./belajar.sh
sekarang belajar permission
daffania@daffania-VirtualBox:~/sisop$ cd
daffania@daffania-VirtualBox:~$ sudo deluser --remove-home hanadila
Looking for files to backup/remove ...
Removing files ...
Removing user 'hanadila' ...
Warning: group 'hanadila' has no more members.
Done.
daffania@daffania-VirtualBox:~$ cd /home/
daffania@daffania-VirtualBox:/home$ ls
daffania
daffania@daffania-VirtualBox:/home$ sudo delgroup kls_sisop
Removing group 'kls_sisop' ...
Done.
daffania@daffania-VirtualBox:/home$
```

Tugas

1. Membuat file .txt

