

南京邮电大学

实验报告

(2024/ 2025 学年 第 一 学期)

课程名称	GNU/Linux 编程			
实验名称	实验一			
实验时间	2024	年 10	月 18	日
指导单位	计算机学院 网络空间安全系			
指导教师	王磊			

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学院(系)	计算机学院	专 业	信息安全

1、目录操作

```
kumikom@kali: ~/b22041024
File Actions Edit View Help

(kumikom@kali)-[~]
$ pwd
/home/kumikom

(kumikom@kali)-[~]
$ cd ~

(kumikom@kali)-[~]
$ mkdir b22041024

(kumikom@kali)-[~]
$ cd b22041024

(kumikom@kali)-[~/b22041024]
$ mkdir zyx

(kumikom@kali)-[~/b22041024]
$ ls
zyx

(kumikom@kali)-[~/b22041024]
$ rmdir zyx

(kumikom@kali)-[~/b22041024]
$ ls

(kumikom@kali)-[~/b22041024]
$
```

2、文件操作

```
kumikom@kali: ~
File Actions Edit View Help

(kumikom@kali)-[~/b22041024]
$ cd ~

(kumikom@kali)-[~]
$ touch zyx.txt

(kumikom@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos b22041024 pwndbg zyx.txt

(kumikom@kali)-[~]
$ echo "Hello World" > zyx.txt

(kumikom@kali)-[~]
$ cat zyx.txt
Hello World

(kumikom@kali)-[~]
$ cp zyx.txt zyx2.txt

(kumikom@kali)-[~]
$ mv zyx.txt b22041024.txt

(kumikom@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos b22041024 b22041024.txt pwndbg zyx2.txt

(kumikom@kali)-[~]
$
```

3、用户管理

```
File Actions Edit View Help
kumikom@kali:~$ sudo su -
[sudo] password for kumikom:
root@kali:~# groupadd student
root@kali:~# whoami
root
root@kali:~# adduser b22041024
Info: Adding user 'b22041024' ...
Info: Selecting UID/GID from range 1000 to 59999 ...
Info: Adding new group 'b22041024' (1002) ...
Info: Adding new user 'b22041024' (1002) with group 'b22041024' ...
Info: Creating home directory '/home/b22041024' ...
Info: Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for b22041024
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
Info: Adding new user 'b22041024' to supplemental / extra groups 'users' ...
Info: Adding user 'b22041024' to group 'users' ...
root@kali:~# usermod -s student b22041024
root@kali:~# su b22041024
(b22041024@kali)~/root# cd -
(b22041024@kali)~# touch zyx.txt
(b22041024@kali)~# ls -l
total 0
-rw-r--r-- 1 b22041024 student 0 Oct 18 08:37 zyx.txt
(b22041024@kali)~#
```

4、权限管理

```
kumikom@kali:~$ touch demo
kumikom@kali:~$ chmod 777 demo
kumikom@kali:~$ chmod a-x demo
kumikom@kali:~$ ls -l
total 36
drwxr-xr-x 3 kumikom kumikom 4096 Oct 9 17:32 Desktop
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Documents
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Downloads
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Music
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Pictures
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Public
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Templates
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Videos
-rw-rw-rw- 1 kumikom kumikom 0 Oct 18 08:52 demo
drwxr-xr-x 13 kumikom kumikom 4096 Oct 9 09:58 pendug
kumikom@kali:~$ chmod go-w demo
kumikom@kali:~$ ls -l demo
-rw-r--r-- 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod g+w demo
kumikom@kali:~$ ls -l demo
-rw-rw-r-- 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod a- demo
kumikom@kali:~$ ls -l demo
----- 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod +t demo
kumikom@kali:~$ ls -l demo
-----T 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod u+s demo
kumikom@kali:~$ ls -l demo
-----T 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod u+rx demo
kumikom@kali:~$ ls -l demo
-r-s-----T 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$ chmod g+rw demo
kumikom@kali:~$ ls -l demo
-r-srwS--T 1 kumikom kumikom 0 Oct 18 08:52 demo
kumikom@kali:~$
```

5、其他管理

(1) 压缩文件

```
kumikom@kali:~$ mkdir others
(kumikom@kali)~$ cd ./others
(kumikom@kali)~/others$ touch 1.txt
(kumikom@kali)~/others$ touch 2.txt
(kumikom@kali)~/others$ cd ..
(kumikom@kali)~$ tar -czvf backup.tar.gz others
others/
others/2.txt
others/1.txt
(kumikom@kali)~$ ls -l
total 44
drwxr-xr-x 3 kumikom kumikom 4096 Oct 9 17:32 Desktop
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Documents
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Downloads
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Music
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Pictures
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Public
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Templates
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Videos
-rw-rw-r-- 1 kumikom kumikom 156 Oct 18 09:10 backup.tar.gz
drwxr-xr-x 2 kumikom kumikom 4096 Oct 18 09:10 others
drwxr-xr-x 13 kumikom kumikom 4096 Oct 9 09:58 punding
(kumikom@kali)~$ tar -xvzf backup.tar.gz
others/
others/2.txt
others/1.txt
(kumikom@kali)~$ ls -l
total 44
drwxr-xr-x 3 kumikom kumikom 4096 Oct 9 17:32 Desktop
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Documents
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Downloads
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Music
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Pictures
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Public
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Templates
drwxr-xr-x 2 kumikom kumikom 4096 Oct 8 23:35 Videos
-rw-rw-r-- 1 kumikom kumikom 156 Oct 18 09:10 backup.tar.gz
drwxr-xr-x 2 kumikom kumikom 4096 Oct 18 09:10 others
drwxr-xr-x 13 kumikom kumikom 4096 Oct 9 09:58 punding
(kumikom@kali)~$
```

(2) 字符搜索

```
~/1.txt - Mousepad
File Edit Search View Document Help
1 no, I study in njupt.
2 this line ends with 00
3 this line ends with .00
4 I am 25 years old.
5 He is 15. It is 16.00
6 zyx is the short of my name.
7

(kumikom@kali)~$ touch 1.txt
(kumikom@kali)~$ grep 'n' 1.txt
no, I study in njupt.
(kumikom@kali)~$ grep '\.00$' 1.txt
this line ends with .00
He is 15. It is 16.00
(kumikom@kali)~$ grep 'S..' 1.txt
He is 15. It is 16.00
(kumikom@kali)~$ grep '[zyx]' 1.txt
yx is the short of my name.
(kumikom@kali)~$
```