

1) Directory Operation

```
zm@zm-VMware-Virtual-Platform: ~/B23041320
zm@zm-VMware-Virtual-Platform: ~/桌面$ pwd
/home/zm/桌面
zm@zm-VMware-Virtual-Platform: ~/桌面$ cd ~
zm@zm-VMware-Virtual-Platform: ~$ mkdir B23041320
zm@zm-VMware-Virtual-Platform: ~$ cd B23041320
zm@zm-VMware-Virtual-Platform: ~/B23041320$ mkdir ZhangMin
zm@zm-VMware-Virtual-Platform: ~/B23041320$ ls
ZhangMin
zm@zm-VMware-Virtual-Platform: ~/B23041320$ rmdir ZhangMin
zm@zm-VMware-Virtual-Platform: ~/B23041320$ ls
```

2) File operation

```
zm@zm-VMware-Virtual-Platform: ~
zm@zm-VMware-Virtual-Platform: ~/桌面$ cd ~
zm@zm-VMware-Virtual-Platform: ~$ touch Zhangmin.txt
zm@zm-VMware-Virtual-Platform: ~$ ls
公共 模板 视频 图片 文档 下载 音乐 桌面 B23041320 snap Zhangmin.txt
zm@zm-VMware-Virtual-Platform: ~$ echo "hello world" >Zhangmin.txt
zm@zm-VMware-Virtual-Platform: ~$ cat Zhangmin.txt
hello world
zm@zm-VMware-Virtual-Platform: ~$ cp Zhangmin.txt Zhangmin2.txt
zm@zm-VMware-Virtual-Platform: ~$ mv Zhangmin.txt B23041320.txt
zm@zm-VMware-Virtual-Platform: ~$ ls
公共 模板 视频 图片 文档 下载 音乐 桌面 B23041320 B23041320.txt snap Zhangmin2.txt
zm@zm-VMware-Virtual-Platform: ~$
```

3) User Management

```
b23041320@zn-VMware-Virtual-Platform: ~  
zm@zn-VMware-Virtual-Platform:~/桌面$ sudo su root  
[sudo] zm 的密码:  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# groupadd student  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# whoami  
root  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# adduser B23041320  
err: 请输入一个和配置变量 NAME_REGEX 的正则表达式相匹配的用户名。  
使用 "--allow-bad-names"选项来绕过这个检查或者重新配置  
或重新配置 NAME_REGEX。  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# adduser b23041320  
info: 正在添加用户 "b23041320"...  
info: 从 1000 到 59999 中选择 UID/GID...  
info: 正在添加新组 "b23041320" (1002)...  
info: 正在添加新用户 "b23041320" (1002) 到组 "b23041320 (1002)"...  
info: 创建主目录 "/home/b23041320"...  
info: 正在从 "/etc/skel"复制文件...  
新的密码:  
重新输入新的密码:  
抱歉, 密码不匹配。  
新的密码:  
重新输入新的密码:  
passwd: 已成功更新密码  
正在改变 b23041320 的用户信息  
请输入新值, 或直接敲回车键以使用默认值  
    全名 []:  
    房间号码 []:  
    工作电话 []:  
    家庭电话 []:  
    其它 []:  
这些信息是否正确? [Y/n]
```

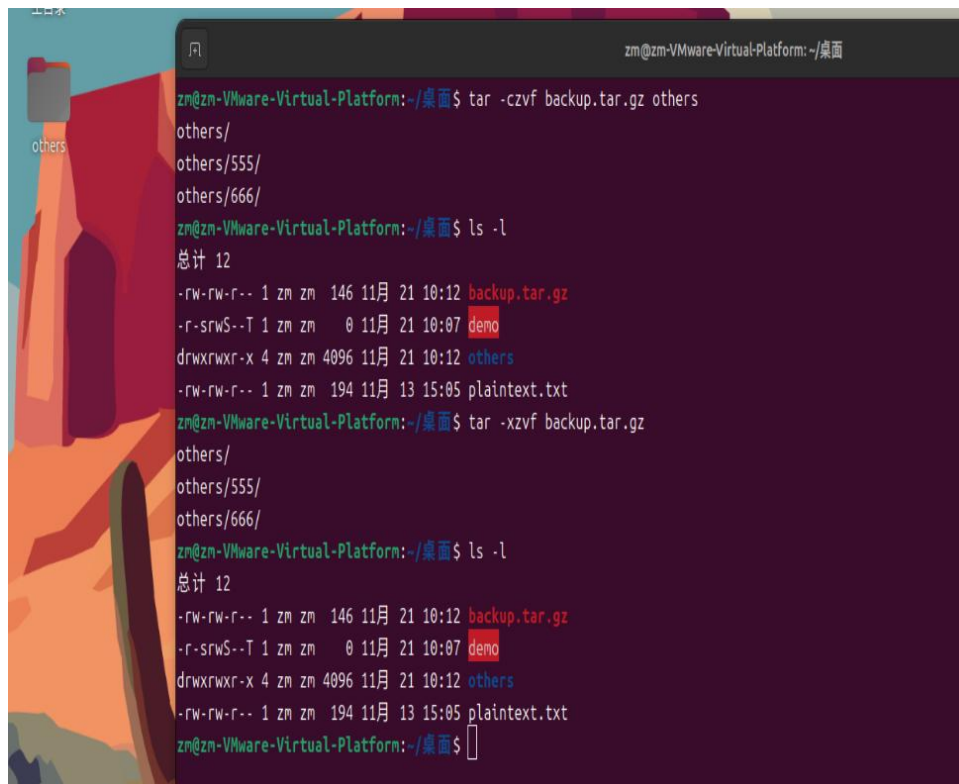
```
b23041320@zn-VMware-Virtual-Platform: ~  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# adduser b23041320  
info: 正在添加用户 "b23041320"...  
info: 从 1000 到 59999 中选择 UID/GID...  
info: 正在添加新组 "b23041320" (1002)...  
info: 正在添加新用户 "b23041320" (1002) 到组 "b23041320 (1002)"...  
info: 创建主目录 "/home/b23041320"...  
info: 正在从 "/etc/skel"复制文件...  
新的密码:  
重新输入新的密码:  
抱歉, 密码不匹配。  
新的密码:  
重新输入新的密码:  
passwd: 已成功更新密码  
正在改变 b23041320 的用户信息  
请输入新值, 或直接敲回车键以使用默认值  
    全名 []:  
    房间号码 []:  
    工作电话 []:  
    家庭电话 []:  
    其它 []:  
这些信息是否正确? [Y/n]  
info: 正在添加新用户 "b23041320"到附加组 "users" ...  
info: 正在添加用户 "b23041320"到 "users"组...  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# usermod -g student b23041320  
root@zn-VMware-Virtual-Platform:/home/zm/桌面# su b23041320  
b23041320@zn-VMware-Virtual-Platform:/home/zm/桌面$ cd ~  
b23041320@zn-VMware-Virtual-Platform:~$ touch Zhangmin.txt  
b23041320@zn-VMware-Virtual-Platform:~$ ls -l  
Zhangmin.txt  
b23041320@zn-VMware-Virtual-Platform:~$
```

4) Permission management

```
zm@zm-VMware-Virtual-Platform: ~/桌面
zm@zm-VMware-Virtual-Platform:~/桌面$ touch demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod 777 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-rwxrwxrwx 1 zm zm 0 11月 21 10:03 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod a-x demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-rw-rw-rw- 1 zm zm 0 11月 21 10:03 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod go-w demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-rw-r--r-- 1 zm zm 0 11月 21 10:03 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod g+w demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-rw-rw-r-- 1 zm zm 0 11月 21 10:03 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod a= demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
----- 1 zm zm 0 11月 21 10:03 demo
```

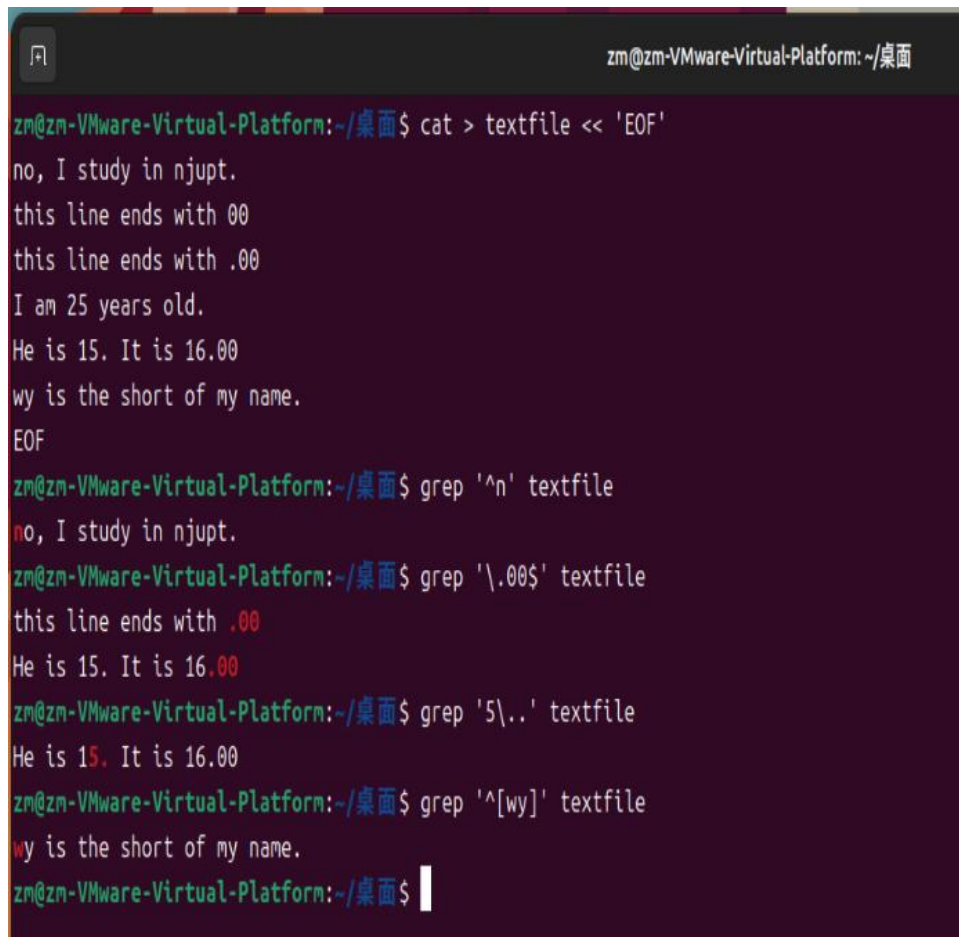
```
zm@zm-VMware-Virtual-Platform: ~/桌面
zm@zm-VMware-Virtual-Platform:~/桌面$ touch demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod +t demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-----T 1 zm zm 0 11月 21 10:07 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod u+s demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
---S-----T 1 zm zm 0 11月 21 10:07 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod u+rx demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-r-s-----T 1 zm zm 0 11月 21 10:07 demo
zm@zm-VMware-Virtual-Platform:~/桌面$ chmod g+rws demo
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l demo
-r-srws--T 1 zm zm 0 11月 21 10:07 demo
zm@zm-VMware-Virtual-Platform:~/桌面$
```

5) Other management



A terminal window titled 'zm@zm-VMware-Virtual-Platform: ~/桌面' showing a series of commands and their outputs. The user first runs 'tar -czvf backup.tar.gz others' to create a compressed archive. Then, they run 'ls -l' to list the files in the current directory, showing 'backup.tar.gz', 'demo', 'others', and 'plaintext.txt'. Finally, they run 'tar -xzf backup.tar.gz' to extract the archive, which restores the 'others' directory and its contents. The 'ls -l' command is run again to confirm the restoration.

```
zm@zm-VMware-Virtual-Platform: ~/桌面
zm@zm-VMware-Virtual-Platform:~/桌面$ tar -czvf backup.tar.gz others
others/
others/555/
others/666/
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l
总计 12
-rw-rw-r-- 1 zm zm 146 11月 21 10:12 backup.tar.gz
-r--srwS--T 1 zm zm 0 11月 21 10:07 demo
drwxrwxr-x 4 zm zm 4096 11月 21 10:12 others
-rw-rw-r-- 1 zm zm 194 11月 13 15:05 plaintext.txt
zm@zm-VMware-Virtual-Platform:~/桌面$ tar -xzf backup.tar.gz
others/
others/555/
others/666/
zm@zm-VMware-Virtual-Platform:~/桌面$ ls -l
总计 12
-rw-rw-r-- 1 zm zm 146 11月 21 10:12 backup.tar.gz
-r--srwS--T 1 zm zm 0 11月 21 10:07 demo
drwxrwxr-x 4 zm zm 4096 11月 21 10:12 others
-rw-rw-r-- 1 zm zm 194 11月 13 15:05 plaintext.txt
zm@zm-VMware-Virtual-Platform:~/桌面$
```



A terminal window titled 'zm@zm-VMware-Virtual-Platform: ~/桌面' showing the creation of a file named 'textfile' using 'cat' and 'EOF'. The file contains several lines of text. The user then uses 'grep' to search for specific patterns: '^n' (newline), '\.00\$' (lines ending in two zeros), '5\.' (the number 5 followed by a dot), and '^[wy]' (lines starting with 'w' or 'y').

```
zm@zm-VMware-Virtual-Platform:~/桌面$ cat > textfile << 'EOF'
no, I study in njupt.
this line ends with 00
this line ends with .00
I am 25 years old.
He is 15. It is 16.00
wy is the short of my name.
EOF
zm@zm-VMware-Virtual-Platform:~/桌面$ grep '^n' textfile
no, I study in njupt.
zm@zm-VMware-Virtual-Platform:~/桌面$ grep '\.00$' textfile
this line ends with .00
He is 15. It is 16.00
zm@zm-VMware-Virtual-Platform:~/桌面$ grep '5\.' textfile
He is 15. It is 16.00
zm@zm-VMware-Virtual-Platform:~/桌面$ grep '^[wy]' textfile
wy is the short of my name.
zm@zm-VMware-Virtual-Platform:~/桌面$
```