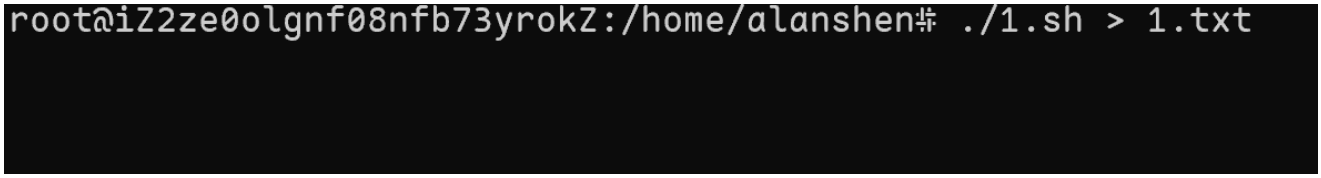
2024-04-18-2021219113-2021213595-沈尉林

1.

Step 1：运行 `1.sh`

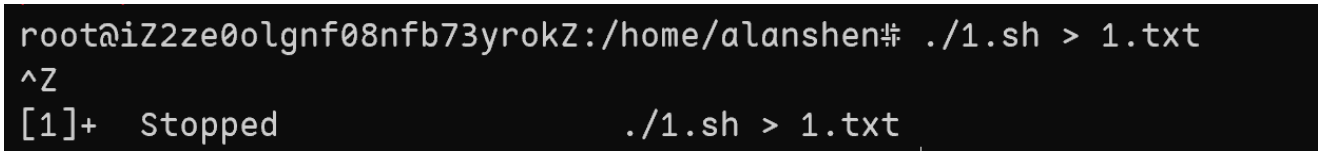
在终端中输入，并将输出重定向到 `1.txt` 中：

```bash
./1.sh > 1.txt
```



Step 2：然后将其悬停

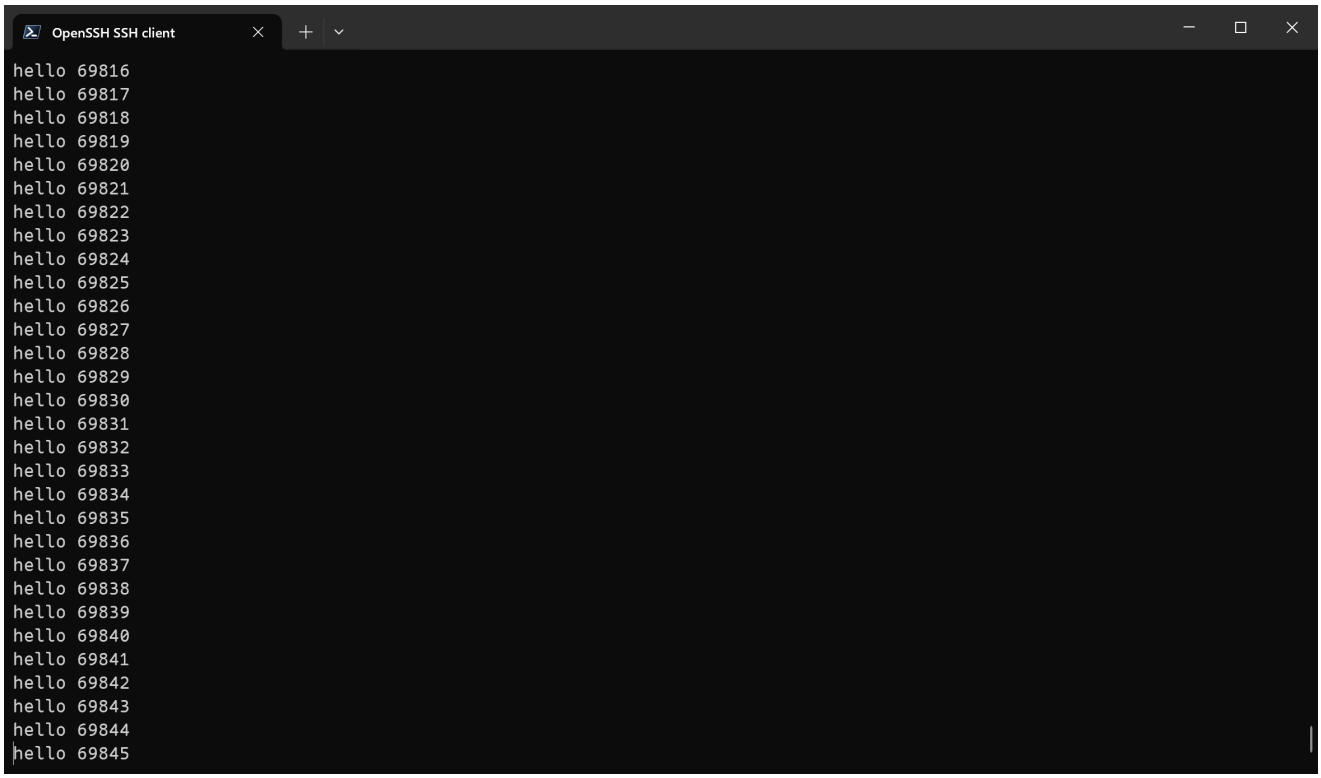
键入 `ctrl + z`



Step 3：再运行 `2.sh`

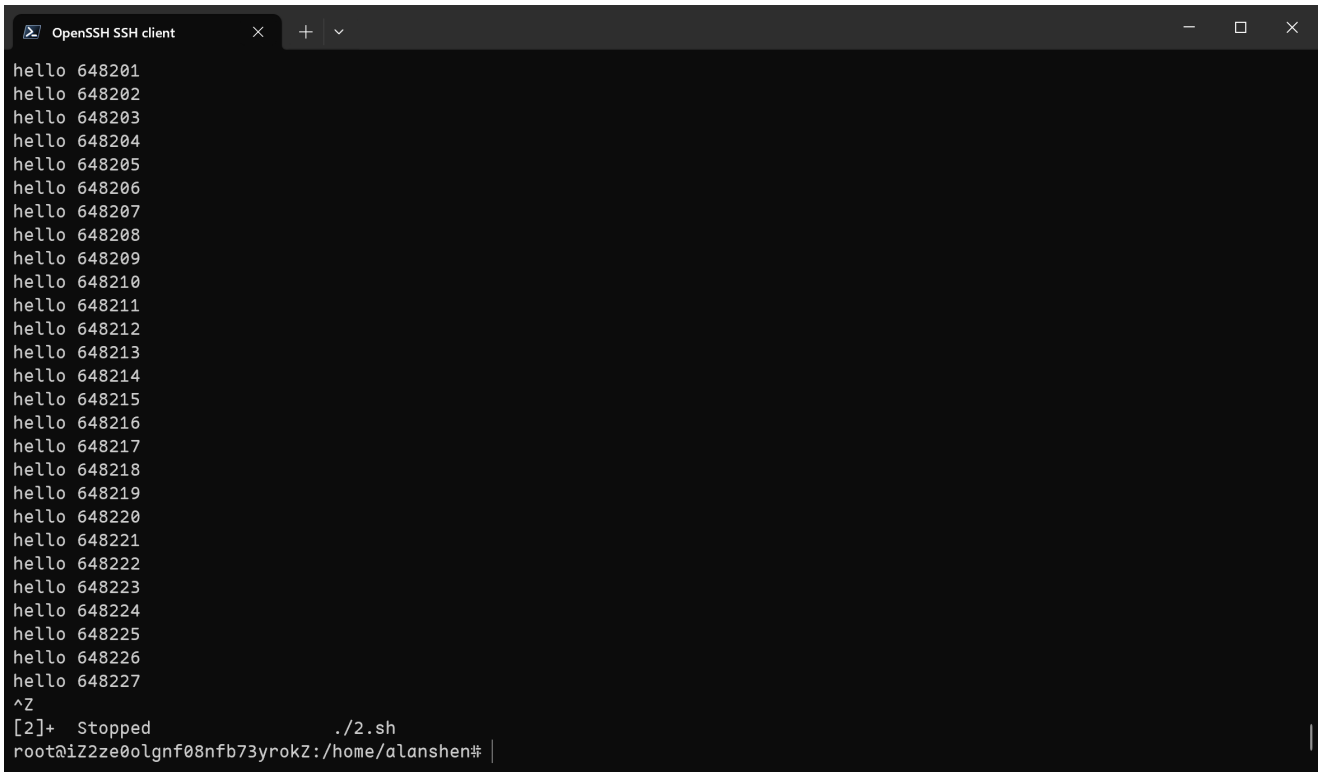
在终端中输入：

```bash
./2.sh
```



Step 4：然后将其悬停

同上



Step 5：看看有哪些程序处于悬停中

在终端中输入：

```bash
jobs
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# jobs
[1]-  Stopped                 ./1.sh
[2]+  Stopped                 ./2.sh
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen#
```

Step 6：将 `1.sh` 在后台恢复运行

在终端中输入：

```bash
bg %1
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# bg %1
[1]+ ./1.sh > 1.txt &
```

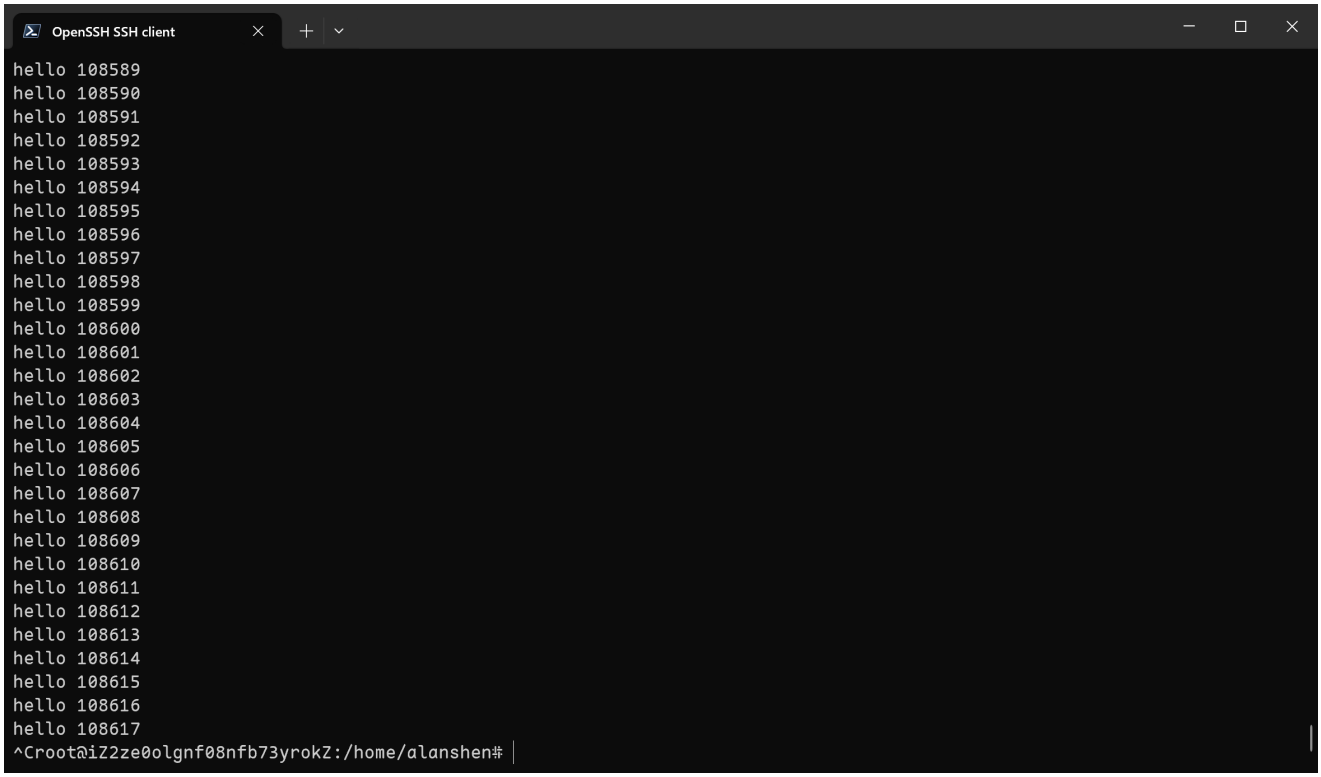
Step 7：将 `2.sh` 在前台恢复运行

在终端中输入：

```bash
fg %2
```

Step 8：然后终止 `2.sh`

键入 `ctrl + c`



2. 写一个每周6凌晨3:00(或者你正在写该作业的时间)，使得在屏幕上自动打印“hehe”

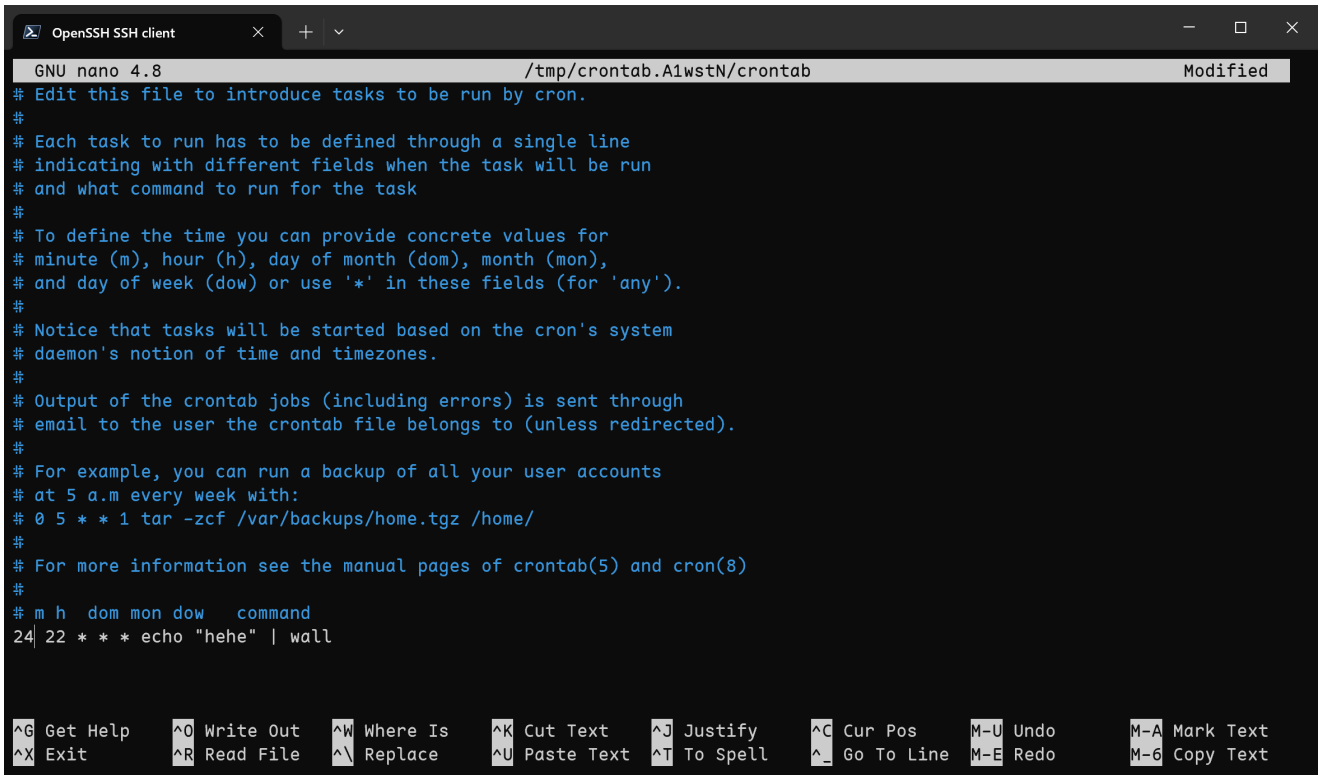
在终端中输入，编辑 `cron` 任务：

```bash
crontab -e
```

在编辑器中，添加下面代码：

```bash
24 22 * * * echo "hehe" | wall
```

> 这行的意思是会在每天的晚上10点24分输出"hehe"到终端。



到点执行结果：

```
Broadcast message from root@iZ2ze0olgnf08nfb73yrokZ (somewhere) (Mon Apr 22 22:

hehe
```

3. 在目录里创建一些文件和目录，然后实现

Step 1：删除所有三个字符的文件

删除前：

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# ls
111    222    333         debug_part_aa  debug_part_ad  dir1  file1     file.list   parent.sh
1.sh   2.sh   child.sh    debug_part_ab  debug_part_ae  dir2  file2     nohup.out
1.txt  2.txt  debug2.txt  debug_part_ac  debug.txt      file  file-cmb  output.txt
```

在终端中输入：

```bash
rm ???
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# ls
1.sh   2.sh   child.sh    debug_part_aa  debug_part_ac  debug_part_ae  dir1  file   file2     file.list  output.txt
1.txt  2.txt  debug2.txt  debug_part_ab  debug_part_ad  debug.txt      dir2  file1  file-cmb  nohup.out  parent.sh
```

Step 2：删除所有以数字开头，以小写字母结尾的目录

删除前：

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# ls
1.sh   2.sh   child.sh    debug_part_aa  debug_part_ac  debug_part_ae  dir1  file   file2     file.list  output.txt
1.txt  2.txt  debug2.txt  debug_part_ab  debug_part_ad  debug.txt      dir2  file1  file-cmb  nohup.out  parent.sh
```

在终端中输入：

```bash
rm -rf [0-9]*[a-z]
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# ls
child.sh    debug_part_aa  debug_part_ac  debug_part_ae  dir1  file   file2     file.list  output.txt
debug2.txt  debug_part_ab  debug_part_ad  debug.txt      dir2  file1  file-cmb  nohup.out  parent.sh
```

4.

Step 1：定义一个变量 `temp=3`

在终端中输入：

```bash
temp=3
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# temp=3
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen#
```

Step 2：定义一个变量 `cont` 为 `temp` 变量加 `is content of` 加文件 `1.txt` 的内容，并显示该变量

在终端中输入：

```bash
cont="$temp is content of $(cat 1.txt)"
echo "$cont"
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# cont="$temp is content of $(cat 1.txt)"
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# echo "$cont"
3 is content of this is 1.txt
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen#
```

Step 3：定义一个变量 `dd` 为 `this is content of dir1` 加目录 `dir1` 的内容,并打印该变量值

在终端中输入：

```bash
dd="this is content of $(ls dir1)"
echo "$dd"
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# dd="this is content of $(ls dir1)"
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# echo "$dd"
this is content of 1.txt
```

Step 4：验证一下，如果双引号改为单引号的话，变量 `dd` 就是一个常量了

在终端中输入：

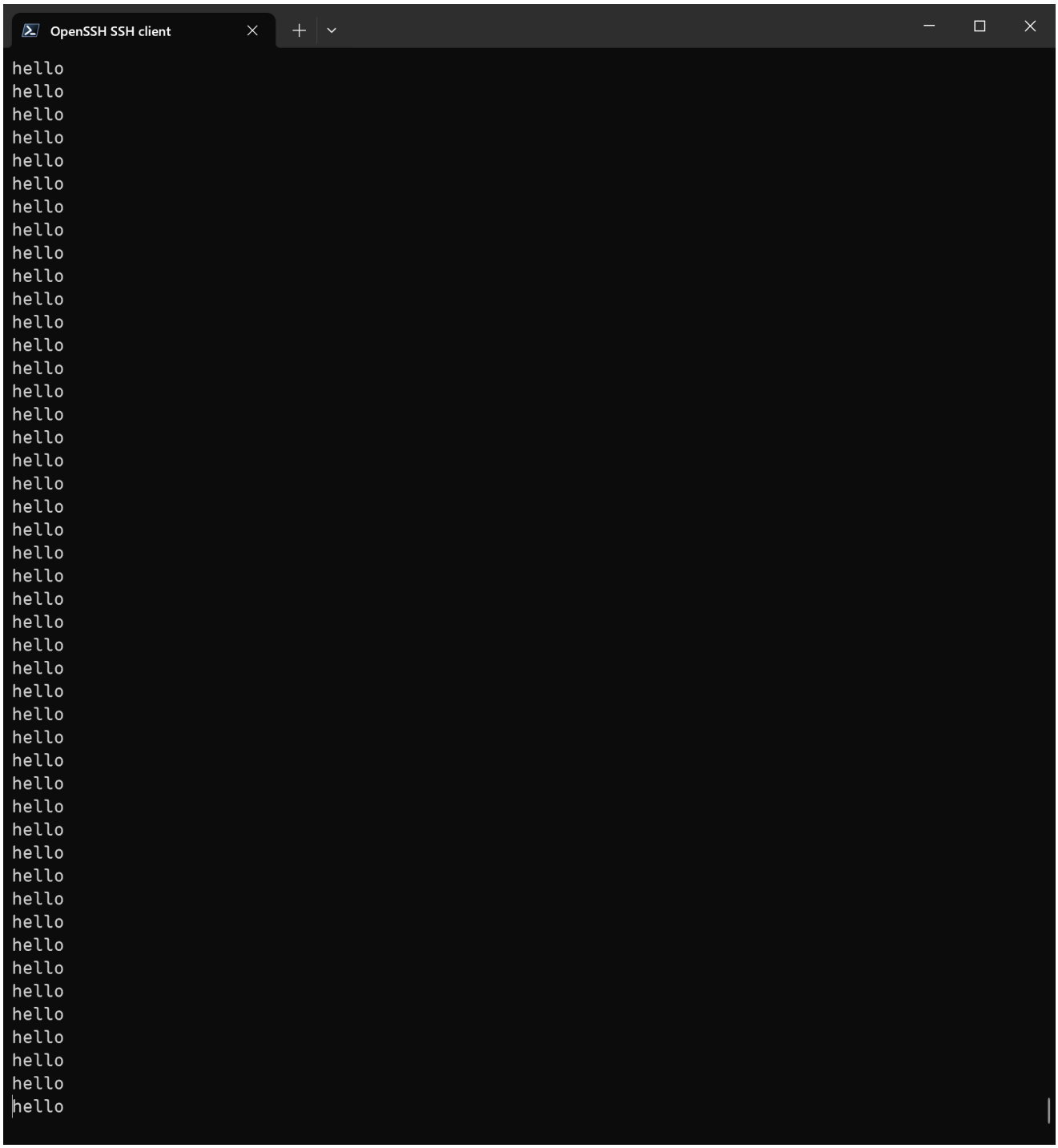
```bash
dd='this is content of $(ls dir1)'
echo "$dd"
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# dd='this is content of $(ls dir1)'
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# echo "$dd"
this is content of $(ls dir1)
```

5. 运行无限循环程序 `1.sh` ，将输出重定向到 `debug.txt` 中，将错误重定向到 `error.txt` 中

在终端中输入：

```shell
nohup ./1.sh >debug.txt 2>error.txt &
tail -f debug.txt
tail -f error.txt
```


OpenSSH SSH client
hello

OpenSSH SSH client

```
./1.sh: 4: let: not found
./1.sh: 4: let: not found
./1.sh: 4: let: not found
./1.sh: 4: let: not found
./1.sh: 4: let: not found
./1.sh: 4: let: not found
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./1.sh: 4: let: not found
./1.sh: 4: let: not found
./1.sh: 4: let: not found
```

6.

Step 1：对 `/etc/passwd` 做词统计

在终端中输入：

Bash

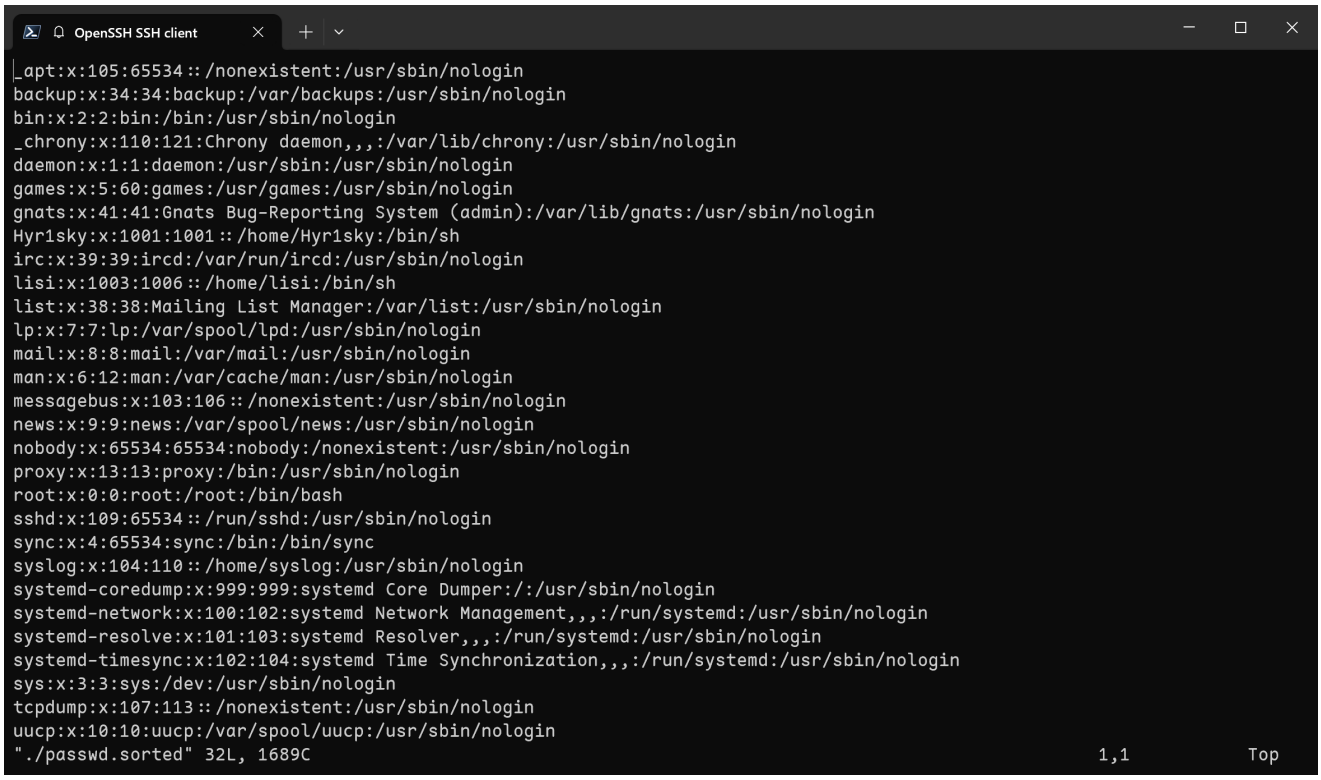
```bash
wc < /etc/passwd
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen# wc < /etc/passwd
  32   45 1689
```

Step 2：对 `/etc/passwd` 做排序后，存储到新文件 `passwd.sorted` 中

在终端中输入：

```bash
sort /etc/passwd > ./passwd.sorted
```



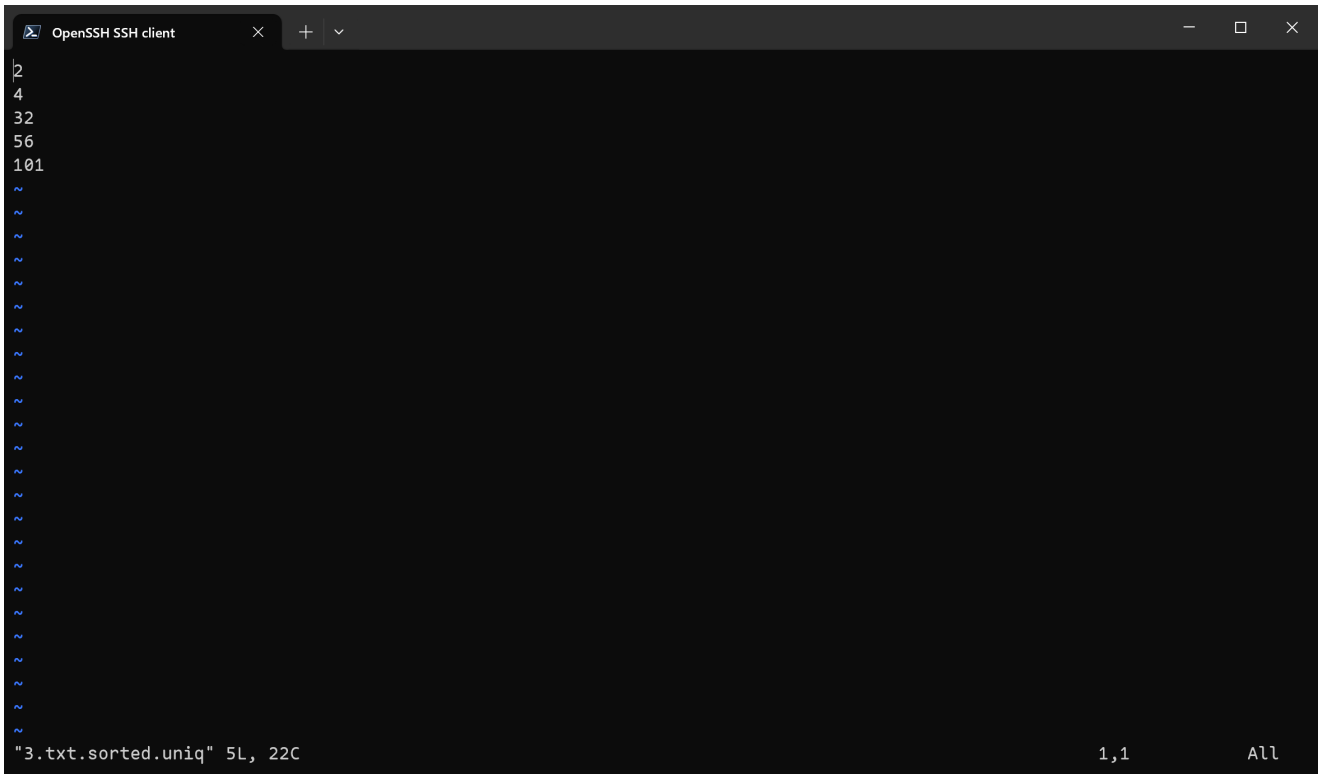
Step 3：对文件 `3.txt`

```txt
101
2
2
4
56
32
```

由小到大进行排序后，压缩重复行，并保存到 `3.txt.sorted.uniq` 文件中

在终端中输入：

```bash
sort -u -n 3.txt >3.txt.sorted.uniq
```



7. 在目录里创造一些文本文件，然后

Step 1: 搜索所有含 `temp` 的文件

在终端中输入:

```bash
grep temp *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep temp *
file_with_temp.txt:This file contains the word temp.
temp_file.txt:This is a temporary file.
```

Step 2: 搜索所有含 `temp` 的文件，含子目录，并显示行号

在终端中输入:

```bash
grep -n -r temp *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep -n -r temp *
file_with_temp.txt:1:This file contains the word temp.
temp_file.txt:1:This is a temporary file.
```

Step 3: 搜索所有含 `temp` 和 `Temp` 的文件，并显示行号

在终端中输入:

```bash
grep -n -e temp -e Temp *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep -n -e temp -e Temp *
file_with_temp.txt:1:This file contains the word temp.
file_with_Temp.txt:1:This file contains the word Temp.
temp_file.txt:1:This is a temporary file.
```

Step 4: 搜索所有 `temp` 的文件，并忽略大小写

在终端中输入：

```bash
grep -i temp *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep -i temp *
file_with_temp.txt:This file contains the word temp.
file_with_Temp.txt:This file contains the word Temp.
temp_file.txt:This is a temporary file.
```

Step 5: 搜索所有含单词 `temp` 的文件

在终端中输入：

```bash
grep -w temp *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep -w temp *
file_with_temp.txt:This file contains the word temp.
```

Step 6: 搜索所以含字符串 `i am a boy` 的文件

在终端中输入：

```bash
grep "i am a boy" *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep "i am a boy" *
file_with_phrase.txt:This file contains the phrase 'i am a boy'.
```

Step 7: 搜索所有以 `t` 或者 `T` 开头，以数字为中间，以大写字母为结尾的字符串

在终端中输入：

```bash
grep [tT][0-9][[A-Z] *
```

```
root@iZ2ze0olgnf08nfb73yrokZ:/home/alanshen/123# grep [tT][0-9][A-Z] *
new.txt:T1Z
```