使用方法

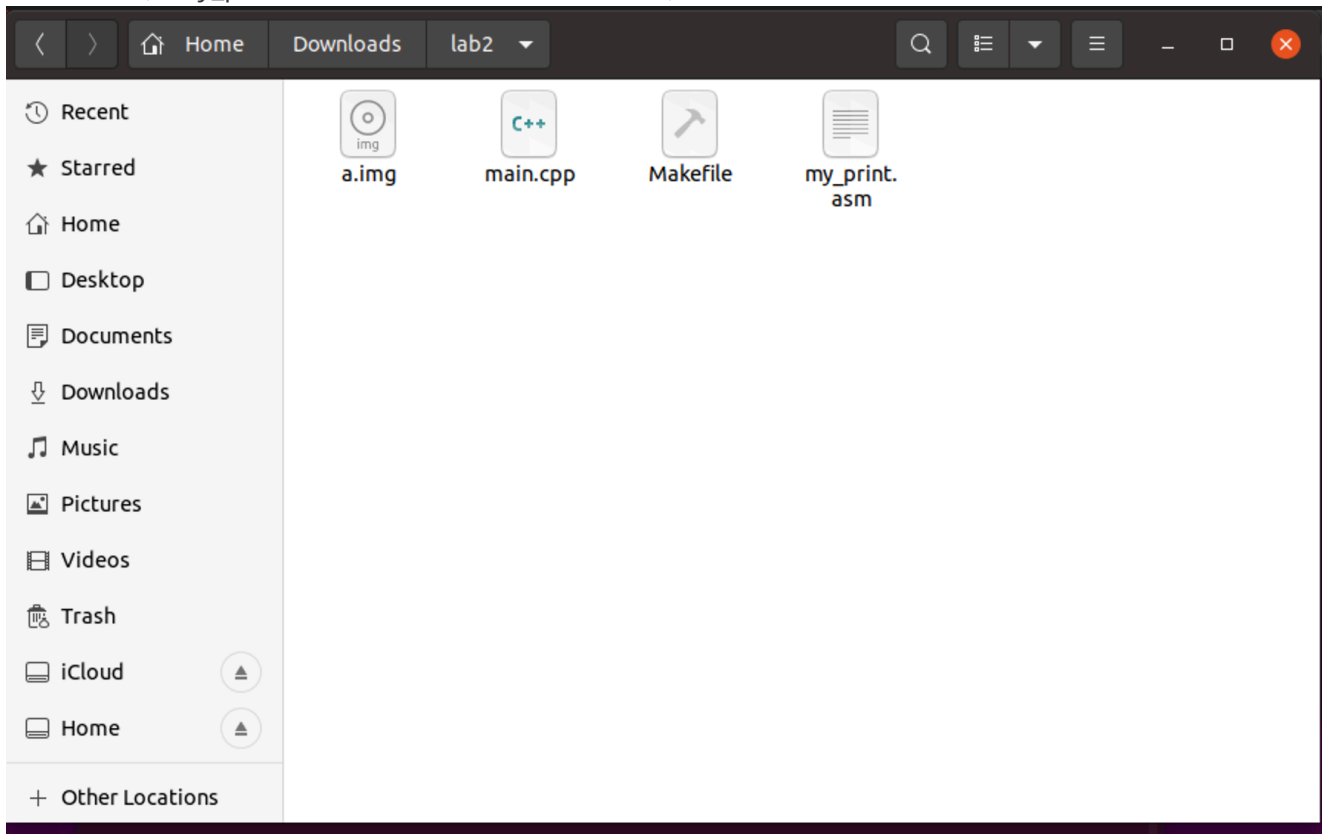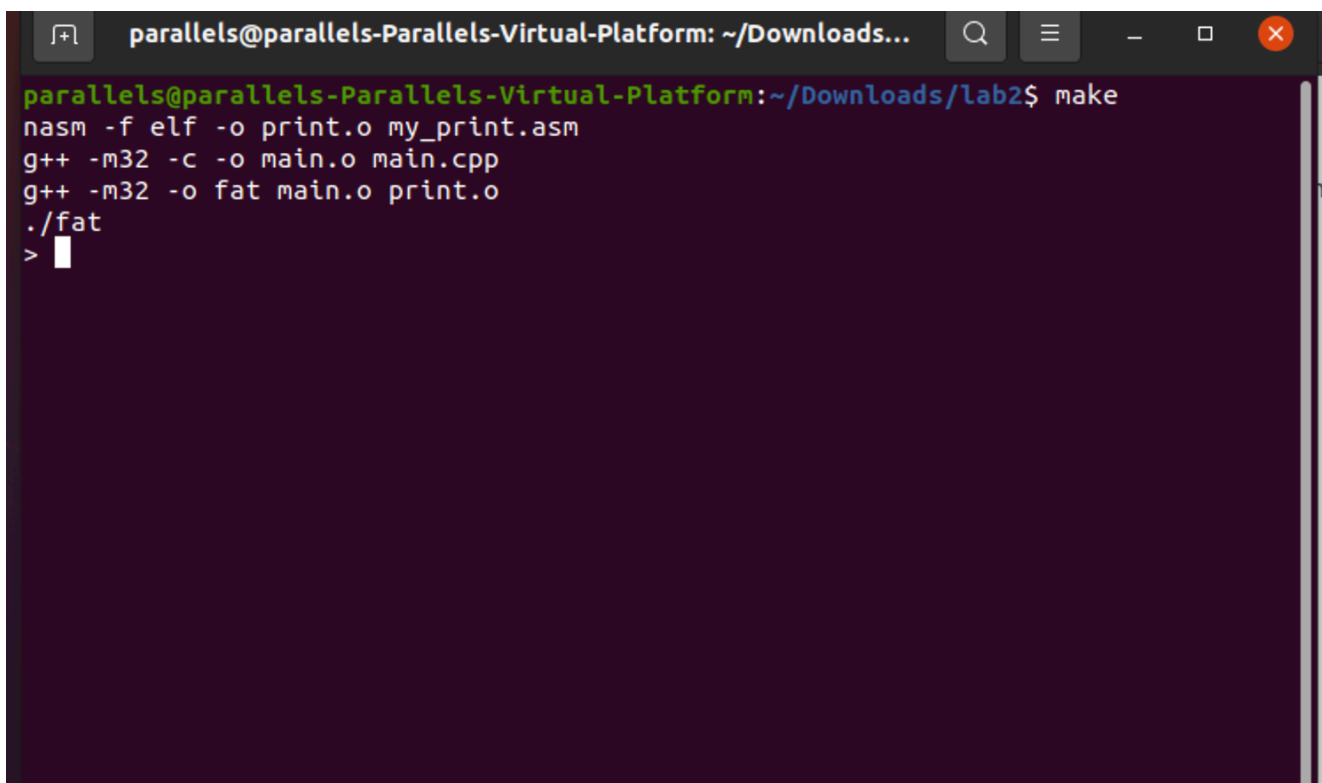**读取a.img映像文件并响应用户输入，实现了基本功能 (ls, ls -l, cat)，且cat命令支持输出超过 512 字节的文件**

1. 在Linux环境下，项目目录如下。a.img是需要读取的fat12映像文件，main.cpp用来读取.img文件和处理相应用户的输入，my_print.asm是用nasm编写的输出函数，Makefile文件用来编译链接项目

2. 使用cd命令进入项目目录下，输入make命令即可执行。

3. ls命令


```
parallels@parallels-Parallels-Virtual-Platform: ~/Downloads...

parallels@parallels-Parallels-Virtual-Platform:~/Downloads/lab2$ make
nasm -f elf -o print.o my_print.asm
g++ -m32 -c -o main.o main.cpp
g++ -m32 -o fat main.o print.o
./fat
> ls
/:
HOUSE NJU ROLL.TXT
/NJU/CS/
. ..
/HOUSE/
. .. ROOM
/NJU/
. .. ABOUT.TXT CS SOFTWARE
/HOUSE/ROOM/
. ..
/NJU/SOFTWARE/
. .. SE1.TXT SE2.TXT
>
```

4. ls -l命令


```
. .. SE1.TXT SE2.TXT
> ls -l
/ 2 1:
HOUSE 1 0
NJU 2 1
ROLL.TXT 1945

/NJU/CS/ 0 0:
.
..

/HOUSE/ 1 0:
.
..
ROOM 0 0

/NJU/ 2 1:
.
..
ABOUT.TXT 1390
CS 0 0
SOFTWARE 0 2

/HOUSE/ROOM/ 0 0:
.
..

/NJU/SOFTWARE/ 0 2:
.
..
SE1.TXT 48
SE2.TXT 49
```

5. Ls /NJU -l命令

```
SE2.TXT 49

> ls /NJU -l
/NJU/CS/ 0 0:

.

..

/NJU/ 2 1:

.

..

ABOUT.TXT 1390
CS 0 0
SOFTWARE 0 2

/NJU/SOFTWARE/ 0 2:

.

..

SE1.TXT 48
SE2.TXT 49
```

6. cat命令

```
parallels@parallels-Parallels-Virtual-Platform: ~/Downloads/lab2

> cat ROLL.TXT
Rick Astley - Never Gonna Give You Up

We're no strangers to love
You know the rules and so do I
A full commitment's what I'm thinking of
You wouldn't get this from any other guy
I just wanna tell you how I'm feeling
Gotta make you understand
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
We've known each other for so long
Your heart's been aching but you're too shy to sarsity is goi!y it
Inside we both know what's been going on
We know the game and we're gonna play it
And if you ask me how I'm feeling
Don't tell me you're too blind to see
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
(Ooh give you up)
(Ooh give you up)
(Ooh) never gonna give never gonna give (give you up)
(Ooh) never gonna give never gonna give (give you up)
We've known each other for so long
Your heart's been aching but you're too shy to say it
Inside we both know what's been going on
We know the game and we're gonna play it
I just wanna tell you how I'm feeling
Gotta make you understand
```

```
Your heart's been aching but you're too shy to sarsity is goi!y it
Inside we both know what's been going on
We know the game and we're gonna play it
And if you ask me how I'm feeling
Don't tell me you're too blind to see
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
(Ooh give you up)
(Ooh give you up)
(Ooh) never gonna give never gonna give (give you up)
(Ooh) never gonna give never gonna give (give you up)
We've known each other for so long
Your heart's been aching but you're too shy to say it
Inside we both know what's been going on
We know the game and we're gonna play it
I just wanna tell you how I'm feeling
Gotta make you understand
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you
Never gonna give you up never gonna let you down
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you

>
```

7. 用户输入不正确的参数或者不存在的文件/目录，提示错误

```
Never gonna run around and desert you
Never gonna make you cry never gonna say goodbye
Never gonna tell a lie and hurt you

> la /NJU -l
参数/命令错误，请重试
> ls /NJU -L
参数错误
> ls -al /NJU
参数错误
> ls /NJU /NJU
参数错误
> ls /NJU -lL
参数错误
> ls /c -l
文件/目录不存在
>
```

8. 输入exit退出程序

```
> exit
parallels@parallels-Parallels-Virtual-Platform:~/Downloads/lab2$
```