（1）c1

打开(O) c1.c ~/桌面/linux/linux3_1 保存(S)

```c
#include <stdio.h>

int main(int argc, char* argv[]) {
    // 检查是否传入文件名参数
    if (argc < 2) {
        printf("Please input source file!\n");
        return -1;
    }

    char buf[1024] = { 0 };
    // 打开文件
    FILE* fp = fopen(argv[1], "r");
    if (fp == NULL) {
        printf("Open source file %s failed\n", argv[1]);
        return -1;
    }

    // 读取文件内容并输出
    while (fgets(buf, sizeof(buf), fp)) {
        printf("%s", buf);
    }

    // 关闭文件
    fclose(fp);
    return 0;
}
```

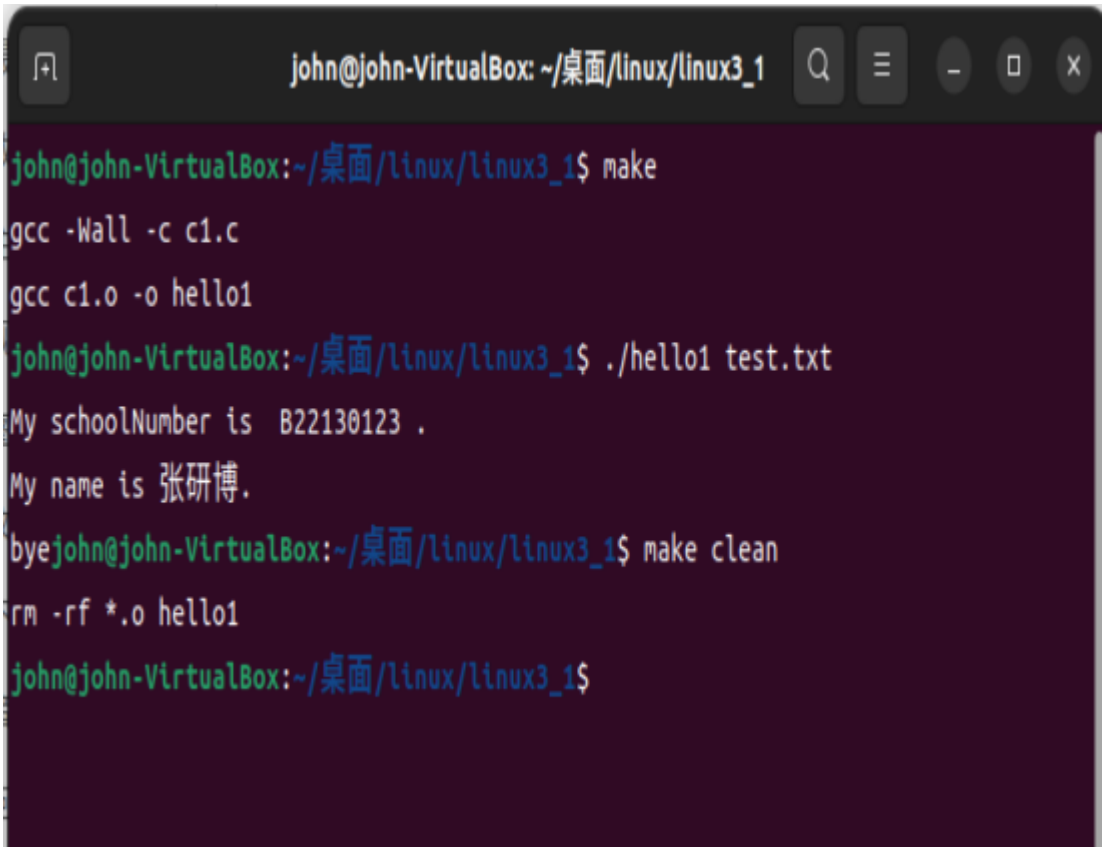
makefile


打开(O)
Makefile
~/桌面/linux/linux3_1
保存(S)
c1.c
Makefile
1 # Makefile for compiling and linking c1.c
2
3 # 编译器设置
4 CC = gcc
5 CFLAGS = -Wall
6
7 # 最终目标文件
8 TARGET = hello1
9
10 # 目标文件
11 OBJ = c1.o
12
13 # 默认目标：编译并链接
14 all: $(TARGET)
15
16 # 链接目标文件生成可执行文件
17 $(TARGET): $(OBJ)
18 $(CC) $(OBJ) -o $(TARGET)
19
20 # 编译源代码为目标文件
21 $(OBJ): c1.c
22 $(CC) $(CFLAGS) -c c1.c
23
24 # 清理目标，删除中间文件和可执行文件
25 clean:
26 rm -rf *.o $(TARGET)

test.txt


打开(O)
test.txt
~/桌面/linux/linux3_1
保存(S)
c1.c
Makefile
test.txt
1 My schoolNumber is B22130123 .
2 My name is 张研博.
3 bye

运行结果

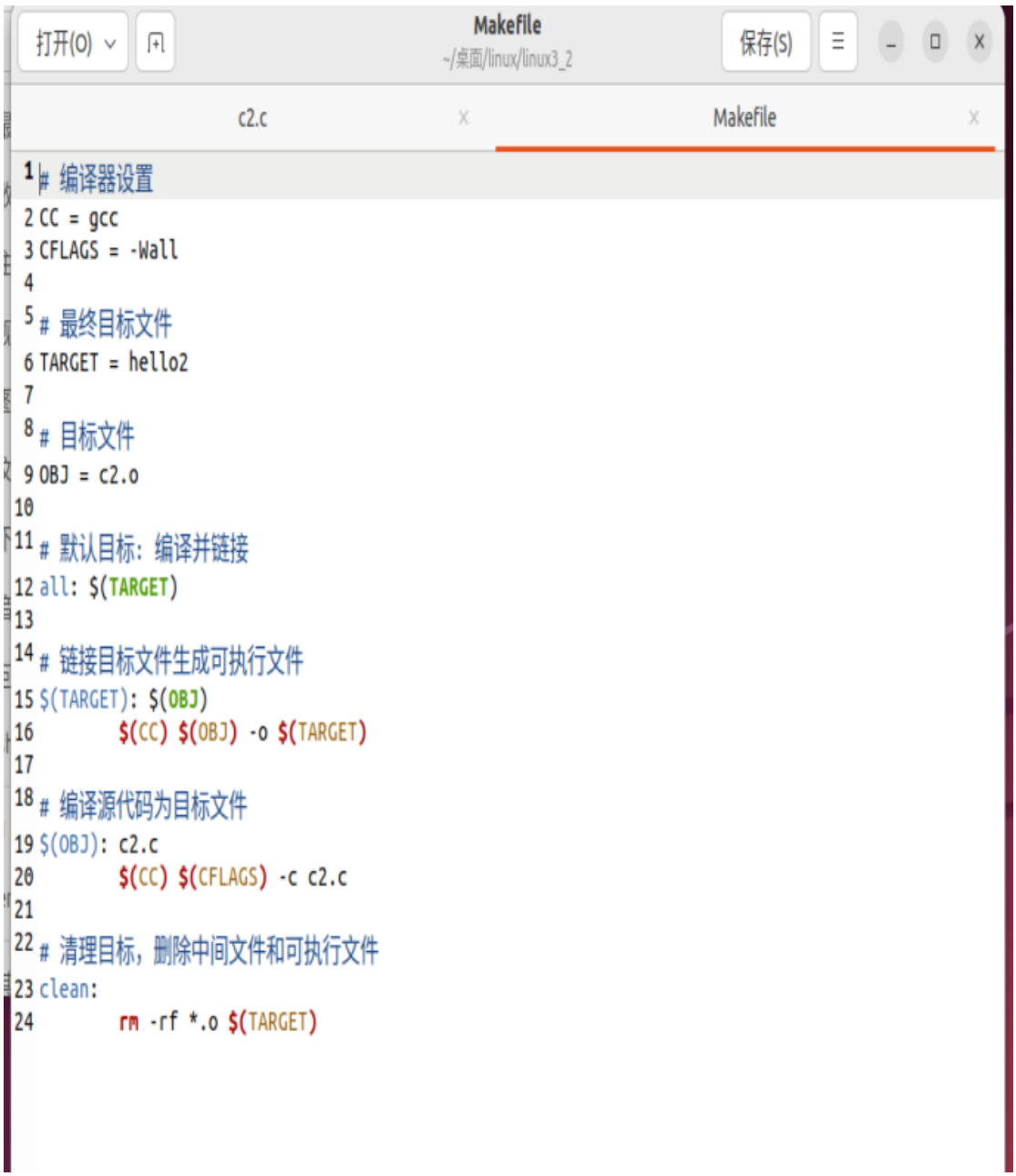

john@john-VirtualBox: ~/桌面/linux/linux3_1
john@john-VirtualBox:~/桌面/linux/linux3_1$ make
gcc -Wall -c c1.c
gcc c1.o -o hello1
john@john-VirtualBox:~/桌面/linux/linux3_1$ ./hello1 test.txt
My schoolNumber is B22130123 .
My name is 张研博.
byejohn@john-VirtualBox:~/桌面/linux/linux3_1$ make clean
rm -rf *.o hello1
john@john-VirtualBox:~/桌面/linux/linux3_1$

（2）c2

打开(O) c2.c ~/桌面/linux/linux3_2 保存(S)

```c
#include <stdio.h>
#include <stdlib.h>
#include <dirent.h>
#include <sys/types.h>

int main(int argc, char *argv[]) {
    if (argc < 2) {
        printf("Please provide a directory path.\n");
        return -1;
    }

    DIR *dirp;
    struct dirent *direntp;

    // 打开目录
    dirp = opendir(argv[1]);
    if (dirp == NULL) {
        perror("Error opening directory");
        return -1;
    }

    // 读取目录内容
    while ((direntp = readdir(dirp)) != NULL) {
        printf("%s\n", direntp->d_name);  // 打印文件名
    }

    // 关闭目录
    closedir(dirp);

    return 0;
}
```

makefile


打开(O)
Makefile
~/桌面/linux/linux3_2
保存(S)
c2.c
Makefile
1 # 编译器设置
2 CC = gcc
3 CFLAGS = -Wall
4
5 # 最终目标文件
6 TARGET = hello2
7
8 # 目标文件
9 OBJ = c2.o
10
11 # 默认目标：编译并链接
12 all: $(TARGET)
13
14 # 链接目标文件生成可执行文件
15 $(TARGET): $(OBJ)
16 $(CC) $(OBJ) -o $(TARGET)
17
18 # 编译源代码为目标文件
19 $(OBJ): c2.c
20 $(CC) $(CFLAGS) -c c2.c
21
22 # 清理目标，删除中间文件和可执行文件
23 clean:
24 rm -rf *.o $(TARGET)

运行结果

```
john@john-VirtualBox:~/桌面/linux/linux3_2$ make
gcc -Wall -c c2.c
gcc c2.o -o hello2
john@john-VirtualBox:~/桌面/linux/linux3_2$ ./hello2 /path/list
Error opening directory: No such file or directory
john@john-VirtualBox:~/桌面/linux/linux3_2$ ./hello2 /home/user
Error opening directory: No such file or directory
john@john-VirtualBox:~/桌面/linux/linux3_2$ ./hello2 /home/john
下载
.sudo_as_admin_successful
eaiInferrer-Src
.java
EASY-EAI
.presage
.viminfo
.gnupg
图片
.
.ssh
.local
.pam_environment
test.txt
音乐
桌面
```

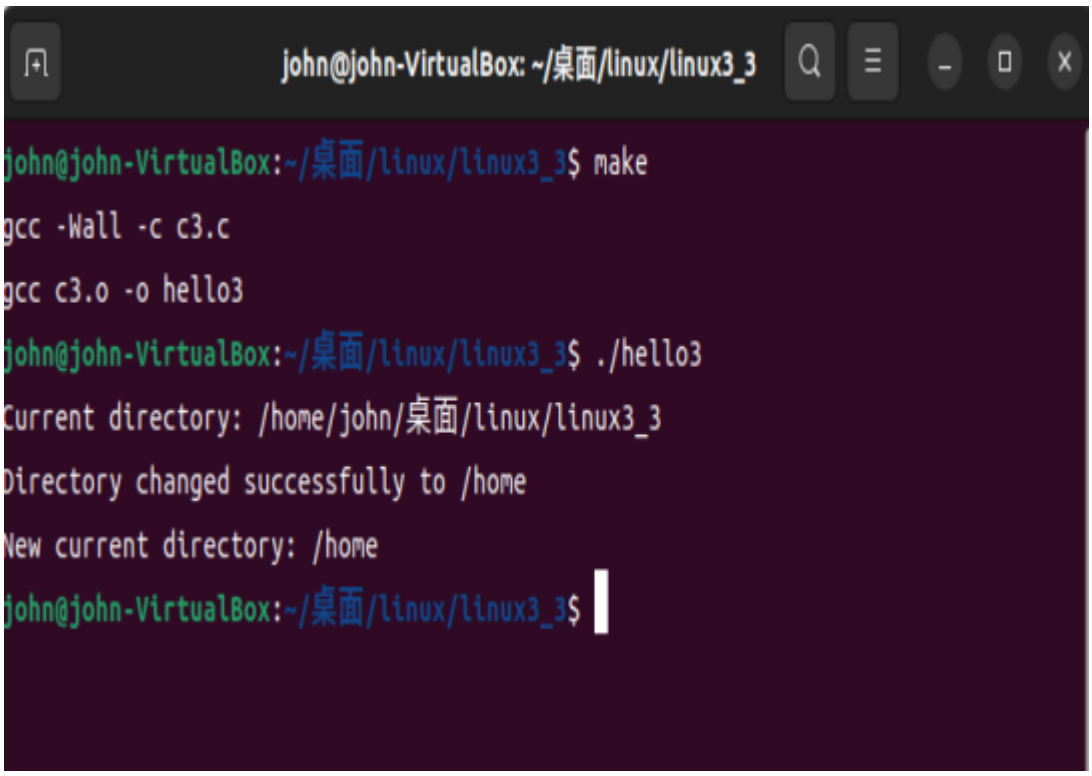
```
john@john-VirtualBox:~/桌面/linux/linux3_2$ make clean
rm -rf *.o hello2
```

（3）c3

makefile


打开(O)
Makefile
~/桌面/linux/linux3_3
保存(S)
c3.c
Makefile
1 # 编译器设置
2 CC = gcc
3 CFLAGS = -Wall
4
5 # 最终目标文件
6 TARGET = hello3
7
8 # 目标文件
9 OBJ = c3.o
10
11 # 默认目标：编译并链接
12 all: $(TARGET)
13
14 # 链接目标文件生成可执行文件
15 $(TARGET): $(OBJ)
16 $(CC) $(OBJ) -o $(TARGET)
17
18 # 编译源代码为目标文件
19 $(OBJ): c3.c
20 $(CC) $(CFLAGS) -c c3.c
21
22 # 清理目标，删除中间文件和可执行文件
23 clean:
24 rm -rf *.o $(TARGET)

运行结果


john@john-VirtualBox: ~/桌面/linux/linux3_3
john@john-VirtualBox:~/桌面/linux/linux3_3$ make
gcc -Wall -c c3.c
gcc c3.o -o hello3
john@john-VirtualBox:~/桌面/linux/linux3_3$ ./hello3
Current directory: /home/john/桌面/linux/linux3_3
Directory changed successfully to /home
New current directory: /home
john@john-VirtualBox:~/桌面/linux/linux3_3$