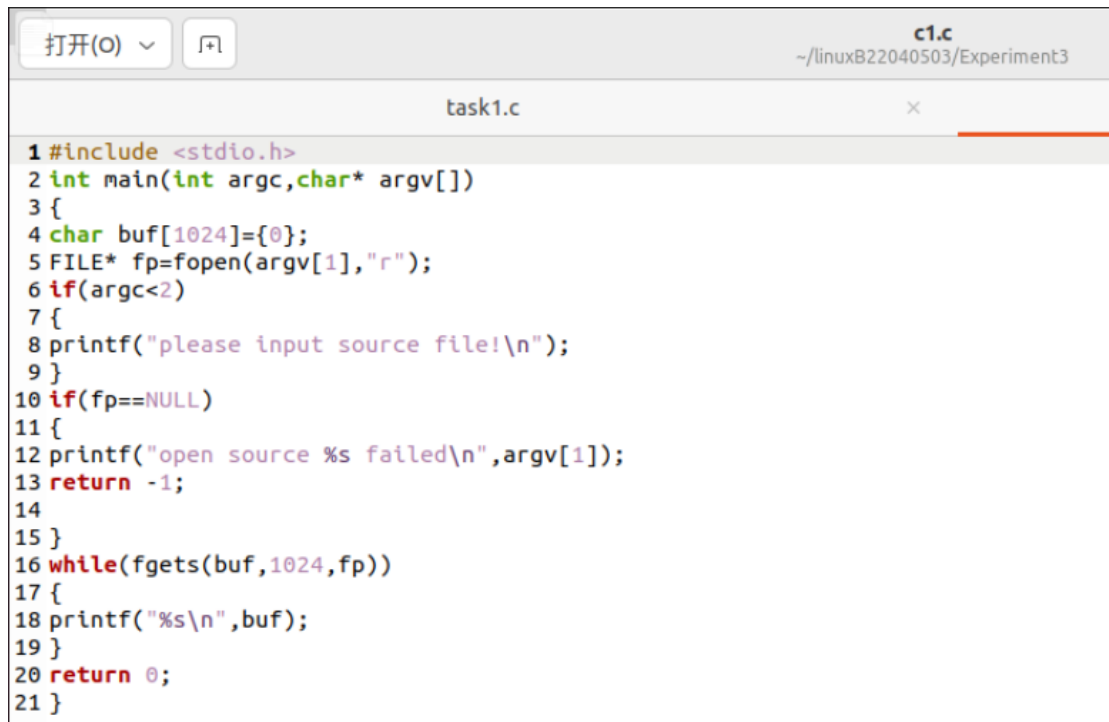


实验三

(1) Task1



```
1 #include <stdio.h>
2 int main(int argc, char* argv[])
3 {
4     char buf[1024]={0};
5     FILE* fp=fopen(argv[1], "r");
6     if(argc<2)
7     {
8         printf("please input source file!\n");
9     }
10    if(fp==NULL)
11    {
12        printf("open source %s failed\n",argv[1]);
13        return -1;
14    }
15    while(fgets(buf,1024,fp))
16    {
17        printf("%s\n",buf);
18    }
19    return 0;
20 }
21 }
```

```
leo@leo-virtual-machine:~/linux822040503/Experiment3$ gcc -c c1.c
leo@leo-virtual-machine:~/linux822040503/Experiment3$ gcc -o hello1 c1.o
leo@leo-virtual-machine:~/linux822040503/Experiment3$ gcc -c c1.c
leo@leo-virtual-machine:~/linux822040503/Experiment3$ rm -rf *.o
leo@leo-virtual-machine:~/linux822040503/Experiment3$
```

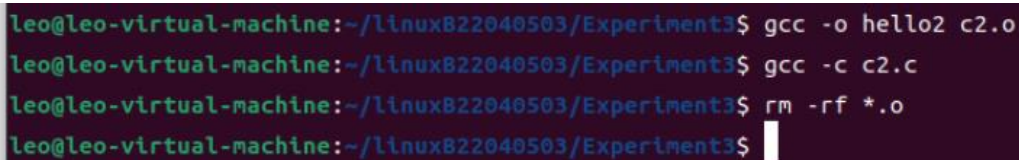
```
leo@leo-virtual-machine:~/linux822040503/Experiment3$ ./hello1 hello.txt
hello world!

B22040503
```

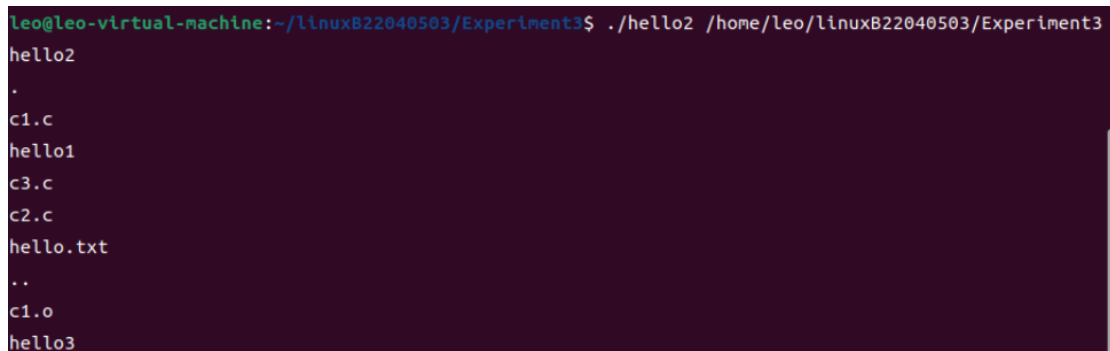
(2) Task2



```
1 #include <stdio.h>
2 #include <dirent.h>
3 #include <sys/types.h>
4 int main(int argc, char* argv[])
5
6     DIR* dirp;
7     struct dirent* direntp;
8     if ((dirp = opendir(argv[1])) == NULL) {
9         printf("error\n");
10        // exit(1);
11    }
12    while ((direntp = readdir(dirp)) != NULL)
13        printf("%s\n", direntp->d_name);
14    closedir(dirp);
15    // exit(0);
16
```

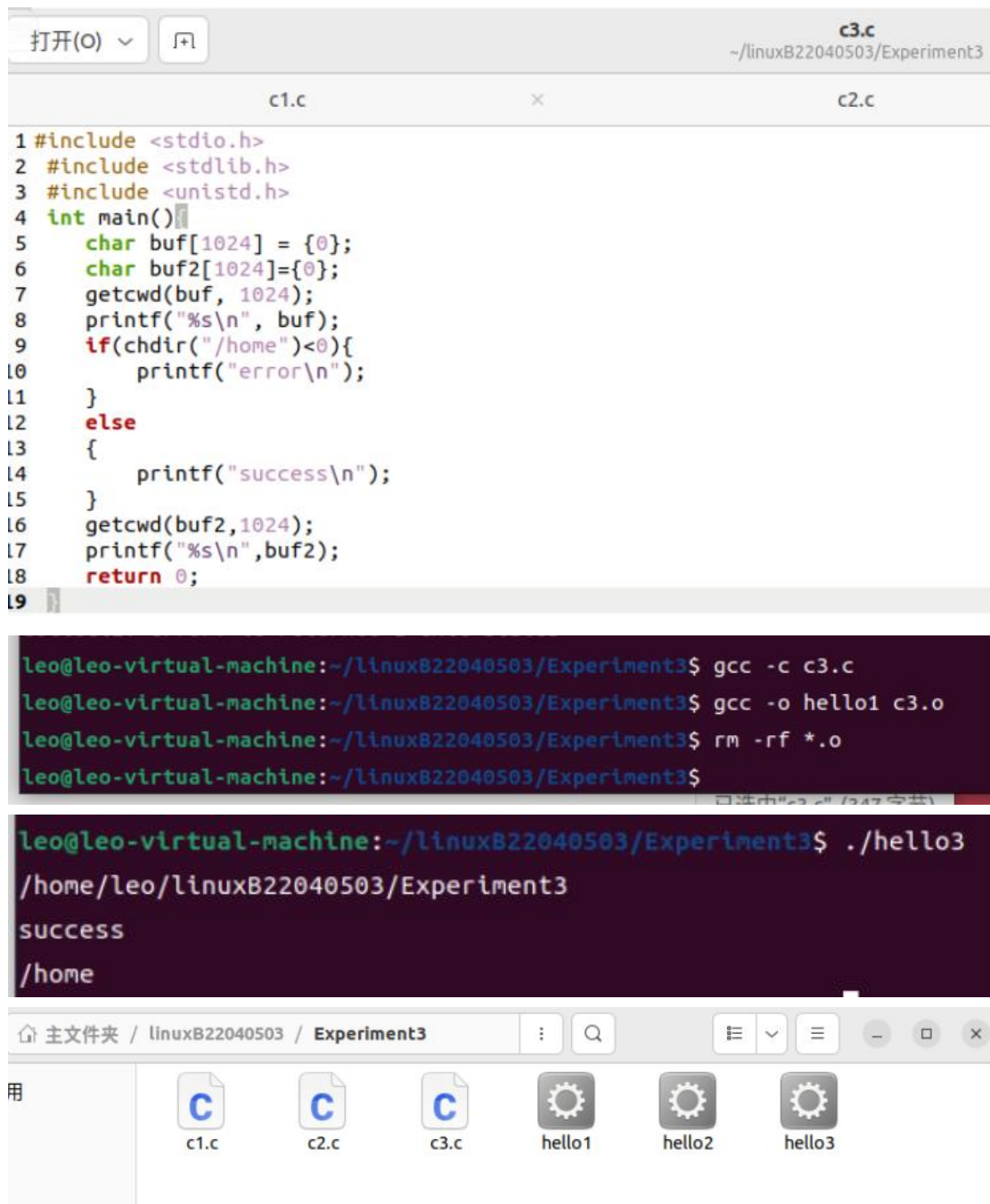


```
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ gcc -o hello2 c2.o
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ gcc -c c2.c
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ rm -rf *.o
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$
```



```
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ ./hello2 /home/leo/linuxB22040503/Experiment3
hello2
.
c1.c
hello1
c3.c
c2.c
hello.txt
..
c1.o
hello3
```

(3) Task3



The image shows a C code editor window with a file named `c3.c` open. The code is as follows:

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <unistd.h>
4 int main()
5 {
6     char buf[1024] = {0};
7     char buf2[1024] = {0};
8     getcwd(buf, 1024);
9     printf("%s\n", buf);
10    if(chdir("/home") < 0){
11        printf("error\n");
12    }
13    else
14    {
15        printf("success\n");
16    }
17    getcwd(buf2, 1024);
18    printf("%s\n", buf2);
19    return 0;
20 }
```

Below the editor, a terminal window shows the following commands and output:

```
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ gcc -c c3.c
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ gcc -o hello1 c3.o
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ rm -rf *.o
leo@leo-virtual-machine:~/linuxB22040503/Experiment3$

leo@leo-virtual-machine:~/linuxB22040503/Experiment3$ ./hello3
/home/leo/linuxB22040503/Experiment3
success
/home
```

At the bottom, a file manager window shows the directory `linuxB22040503 / Experiment3` containing the following files:

- `c1.c`
- `c2.c`
- `c3.c`
- `hello1`
- `hello2`
- `hello3`

