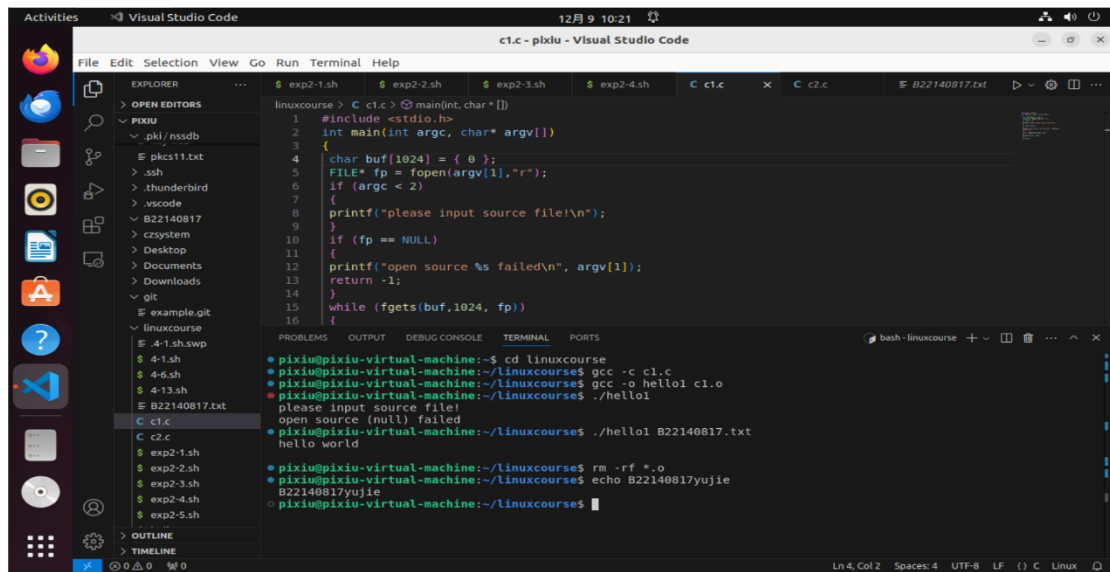


(1) Task 1

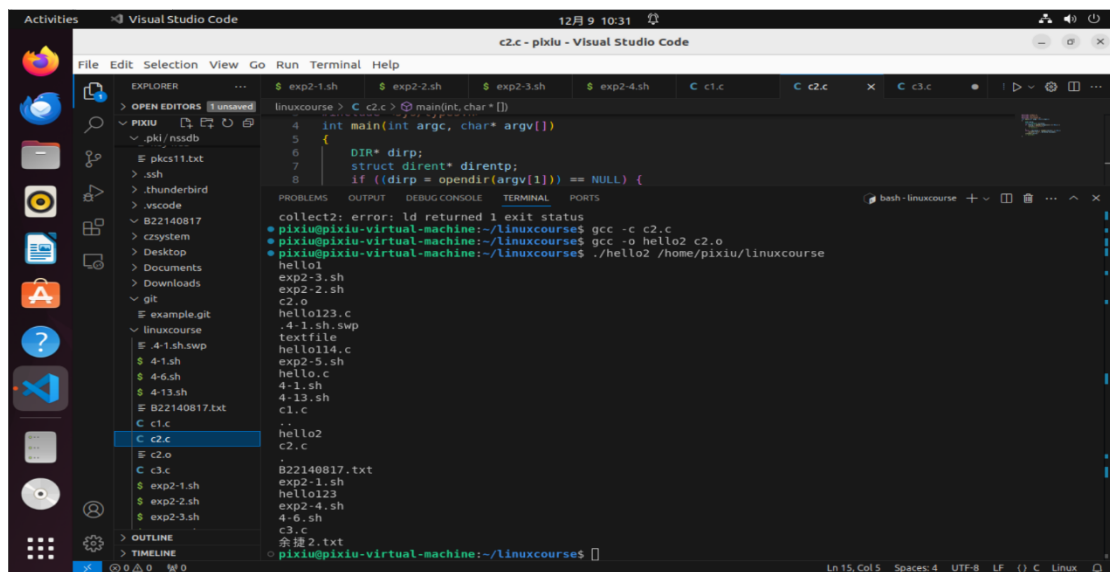


The screenshot shows the Visual Studio Code interface with a C file named `c1.c` open. The code implements a program that takes a filename as an argument, opens it, and prints its contents. The terminal shows the compilation and execution of the program.

```
linuxcourse > C c1.c > main(int, char* [])
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", buf);
18    }
19    fclose(fp);
20    return 0;
21 }
```

```
bash - linuxcourse
• pixiu@pixiu-virtual-machine:~$ cd linuxcourse
• pixiu@pixiu-virtual-machine:~/linuxcourse$ gcc -c c1.c
• pixiu@pixiu-virtual-machine:~/linuxcourse$ gcc -o hello1 c1.o
• pixiu@pixiu-virtual-machine:~/linuxcourse$ ./hello1
please input source file!
open source (null) failed
• pixiu@pixiu-virtual-machine:~/linuxcourse$ ./hello1 B22140817.txt
hello world
• pixiu@pixiu-virtual-machine:~/linuxcourse$ rm -rf *.o
• pixiu@pixiu-virtual-machine:~/linuxcourse$ echo B22140817yujie
B22140817yujie
• pixiu@pixiu-virtual-machine:~/linuxcourse$
```

(2) Task 2



The screenshot shows the Visual Studio Code interface with a C file named `c2.c` open. The code implements a program that traverses a directory and prints the names of all files and subdirectories. The terminal shows the compilation and execution of the program.

```
linuxcourse > C c2.c > main(int, char* [])
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: ld returned 1 exit status\n");
10        return -1;
11    }
12    while ((direntp = readdir(dirp)) != NULL) {
13        printf("%s\n", direntp->d_name);
14    }
15    closedir(dirp);
16    return 0;
17 }
```

```
bash - linuxcourse
collect2: error: ld returned 1 exit status
• pixiu@pixiu-virtual-machine:~/linuxcourse$ gcc -c c2.c
• pixiu@pixiu-virtual-machine:~/linuxcourse$ gcc -o hello2 c2.o
• pixiu@pixiu-virtual-machine:~/linuxcourse$ ./hello2 /home/pixiu/linuxcourse
hello1
exp2-3.sh
exp2-2.sh
c2.o
hello123.c
4-1.sh.swp
textfile
hello114.c
exp2-5.sh
hello.c
4-1.sh
4-13.sh
c1.c
++
hello2
c2.c
B22140817.txt
exp2-1.sh
hello123
exp2-4.sh
4-6.sh
c3.c
余捷 2.txt
• pixiu@pixiu-virtual-machine:~/linuxcourse$
```

(3) Task 3

