

The screenshot shows the Visual Studio Code editor interface within a Debian virtual machine. The editor is open to a file named `file2.c`, which contains a C program designed to demonstrate signal handling. The code includes headers for `stdio.h`, `signal.h`, and `stdlib.h`. The `main` function checks if the number of arguments is 3. If not, it prints a usage message and returns 1. If there are 3 arguments, it converts the second and third arguments to integers using `atoi` and assigns them to `pid` and `signal` respectively. It then attempts to kill the process with the specified PID using the specified signal. If `kill` fails (returns -1), it prints an error message and returns 1. Otherwise, it returns 0.

```
1 #include <stdio.h>
2 #include <signal.h>
3 #include <stdlib.h>
4
5 int main(int argc, char** argv) {
6     if(argc != 3) {
7         printf("Please use: %s <pid> <signal> \n", argv[0]);
8         return 1;
9     }
10
11     int pid = atoi(argv[1]);
12     int signal = atoi(argv[2]);
13
14     if(kill(pid, signal) == -1) {
15         printf("Invalid sendig signal\n");
16         return 1;
17     }
18
19     return 0;
20 }
```

The terminal window at the bottom shows the execution of the program. It starts with the command `gcc file1.c -o file1`, which successfully compiles the program. Subsequent attempts to run `./file1` fail because the required arguments (PID and signal) are missing. The terminal output is as follows:

```
compilation terminated.
debian@debian:~/Documents/vsc/Using Signals$ gcc file1.c -o file1
debian@debian:~/Documents/vsc/Using Signals$ ./file1
^C
debian@debian:~/Documents/vsc/Using Signals$ pvd
bash: pvd: command not found
debian@debian:~/Documents/vsc/Using Signals$ pwd
/home/debian/Documents/vsc/Using Signals
debian@debian:~/Documents/vsc/Using Signals$ ^C
debian@debian:~/Documents/vsc/Using Signals$ gcc
```

The status bar at the bottom indicates the current cursor position is at line 18, column 1, with 4 problems detected. The language is set to C, and the file encoding is UTF-8.

Ссылка на репозиторий: <https://github.com/Volodin-Ilya/operating-systems.git>