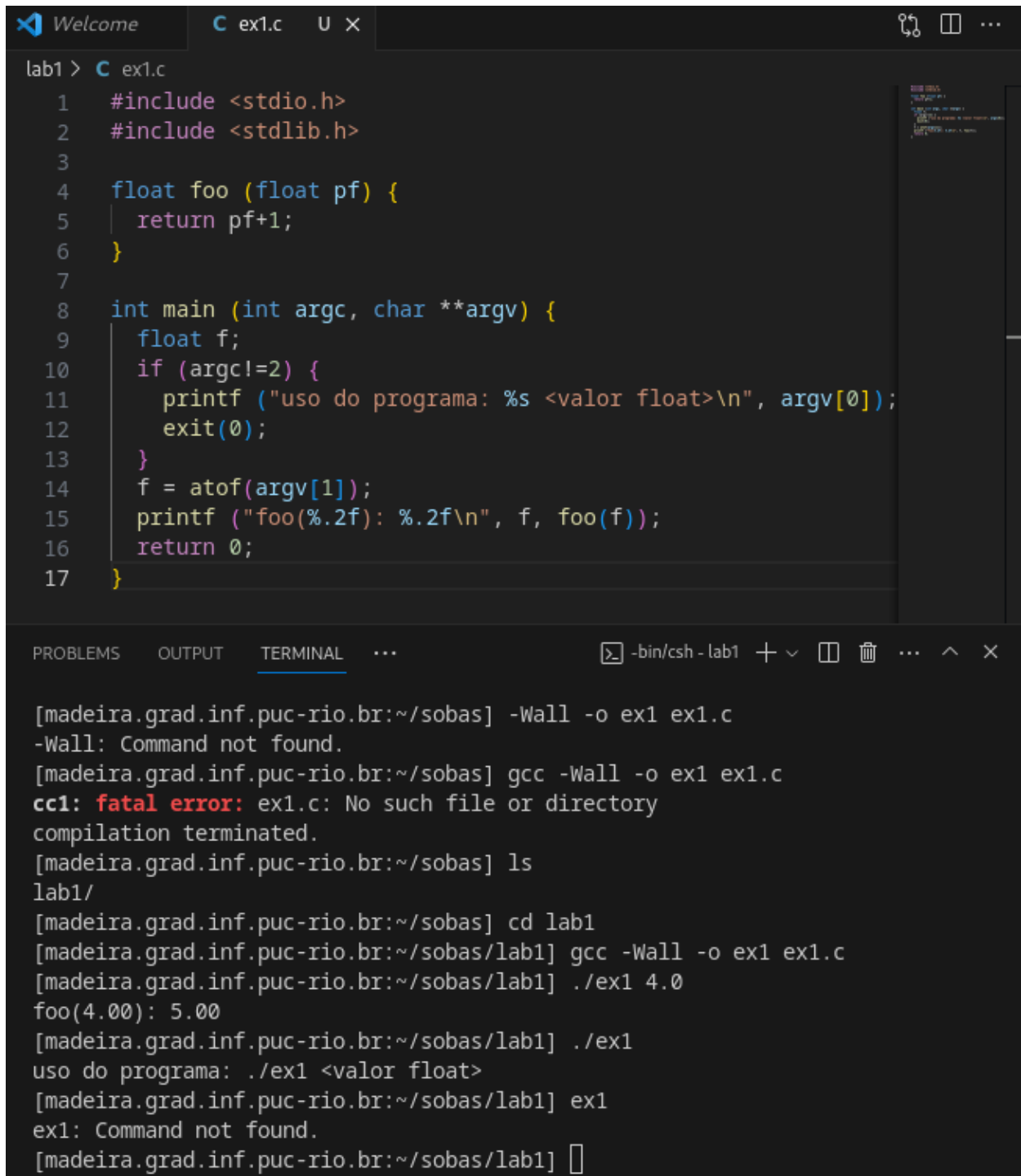


Lab1



The image shows a Visual Studio Code editor window with a C program named `ex1.c` and a terminal window below it.

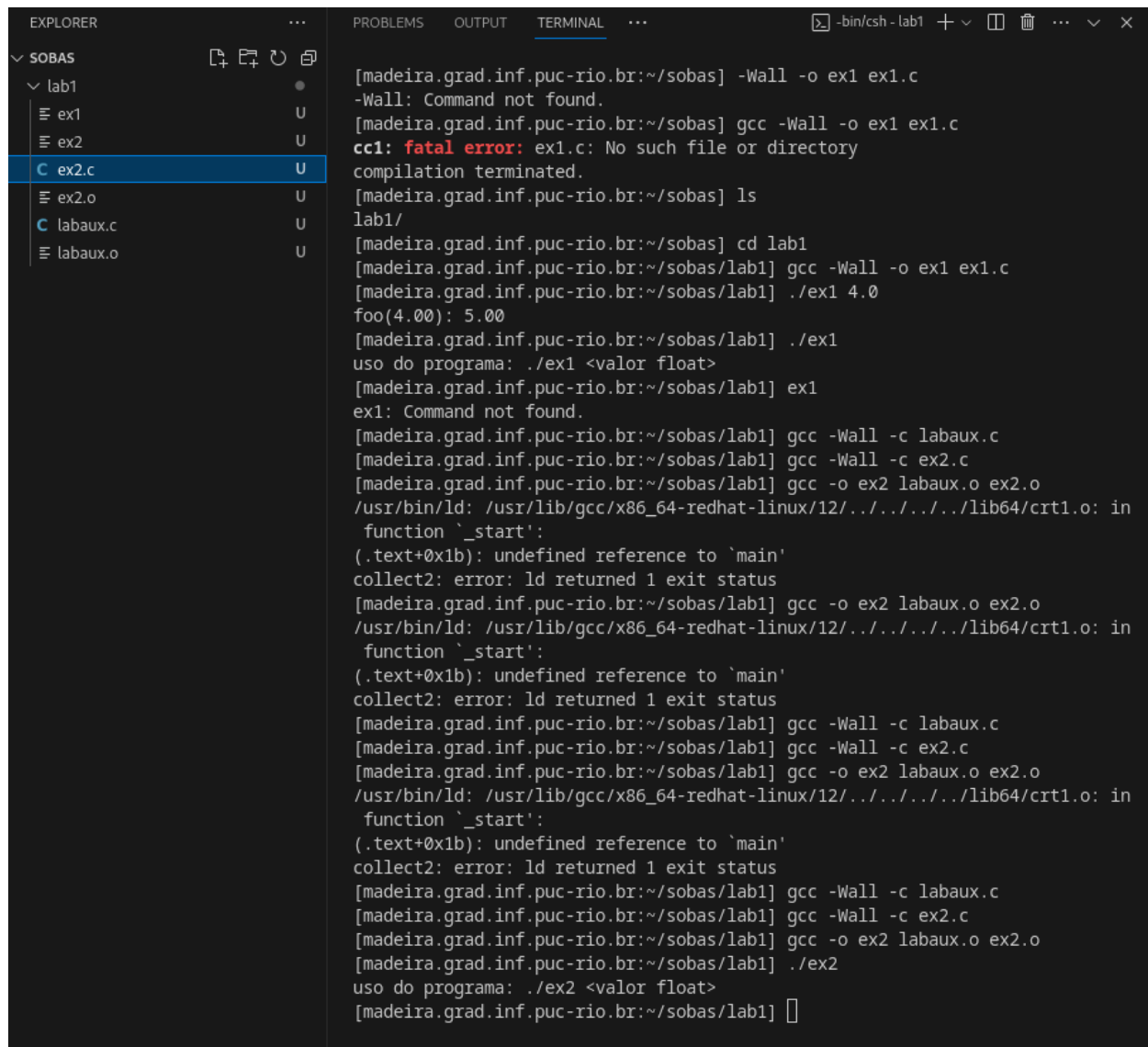
Code in `ex1.c`:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  float foo (float pf) {
5      return pf+1;
6  }
7
8  int main (int argc, char **argv) {
9      float f;
10     if (argc!=2) {
11         printf ("uso do programa: %s <valor float>\n", argv[0]);
12         exit(0);
13     }
14     f = atof(argv[1]);
15     printf ("foo(%.2f): %.2f\n", f, foo(f));
16     return 0;
17 }
```

Terminal Output:

```
[madeira.grad.inf.puc-rio.br:~/sobas] -Wall -o ex1 ex1.c
-Wall: Command not found.
[madeira.grad.inf.puc-rio.br:~/sobas] gcc -Wall -o ex1 ex1.c
cc1: fatal error: ex1.c: No such file or directory
compilation terminated.
[madeira.grad.inf.puc-rio.br:~/sobas] ls
lab1/
[madeira.grad.inf.puc-rio.br:~/sobas] cd lab1
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -o ex1 ex1.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex1 4.0
foo(4.00): 5.00
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex1
uso do programa: ./ex1 <valor float>
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ex1
ex1: Command not found.
[madeira.grad.inf.puc-rio.br:~/sobas/lab1]
```

Programa não foi executado pois não foi dado o comando para leitura do binário gerado, apenas o nome do programa.



The screenshot shows a VS Code interface with a file explorer on the left and a terminal on the right. The file explorer shows a project named 'SOBAS' with a subdirectory 'lab1' containing files 'ex1', 'ex2', 'ex2.c', 'ex2.o', 'labaux.c', and 'labaux.o'. The terminal window is titled '-bin/csh - lab1' and shows the following commands and output:

```
[madeira.grad.inf.puc-rio.br:~/sobas] -Wall -o ex1 ex1.c
-Wall: Command not found.
[madeira.grad.inf.puc-rio.br:~/sobas] gcc -Wall -o ex1 ex1.c
cc1: fatal error: ex1.c: No such file or directory
compilation terminated.
[madeira.grad.inf.puc-rio.br:~/sobas] ls
lab1/
[madeira.grad.inf.puc-rio.br:~/sobas] cd lab1
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -o ex1 ex1.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex1 4.0
foo(4.00): 5.00
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex1
uso do programa: ./ex1 <valor float>
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ex1
ex1: Command not found.
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c labaux.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c ex2.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -o ex2 labaux.o ex2.o
/usr/bin/ld: /usr/lib/gcc/x86_64-redhat-linux/12/../../../../lib64/crt1.o: in
function `_start':
(.text+0x1b): undefined reference to `main'
collect2: error: ld returned 1 exit status
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -o ex2 labaux.o ex2.o
/usr/bin/ld: /usr/lib/gcc/x86_64-redhat-linux/12/../../../../lib64/crt1.o: in
function `_start':
(.text+0x1b): undefined reference to `main'
collect2: error: ld returned 1 exit status
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c labaux.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c ex2.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -o ex2 labaux.o ex2.o
/usr/bin/ld: /usr/lib/gcc/x86_64-redhat-linux/12/../../../../lib64/crt1.o: in
function `_start':
(.text+0x1b): undefined reference to `main'
collect2: error: ld returned 1 exit status
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c labaux.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -Wall -c ex2.c
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] gcc -o ex2 labaux.o ex2.o
[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex2
uso do programa: ./ex2 <valor float>
[madeira.grad.inf.puc-rio.br:~/sobas/lab1]
```

```

ex3.c:12:35: warning: implicit declaration of function 'foo' [-Wimplicit-function-decl
ration]
12 | printf ("foo(%.2f): %.2f\n", f, foo(f));
    |                                ^~~
ex3.c:12:26: warning: format '%f' expects argument of type 'double', but argument 3 has
type 'int' [-Wformat=]
12 | printf ("foo(%.2f): %.2f\n", f, foo(f));
    |                   ~~~~^      ~~~~~~
    |                   |         |
    |                   double    int
    |                   %.2d
/usr/bin/ld: /tmp/ccfOMfmE.o: in function `main':
ex3.c:(.text+0x6d): undefined reference to `foo'
collect2: error: ld returned 1 exit status

```

O compilador reclama da declaração implícita e referência não definida à função declarada no cabeçalho.

[madeira.grad.inf.puc-rio.br:~/sobas/lab1] ./ex4

valor de c1: 1 → na memória: 1 : tamanho do char (?) também pode ser o valor numérico da variável 1

valor de c2: 49 → na memória: 49 : valor numérico do char '1' é seu código ASCII

valor de i: 1 → na memória: 1 0 0 0 : 1 em binário (como está na memória)

valor de v: 1 → na memória: 49 0 imprime '49' em ASCII e o caracter terminal 0