

```

1  /*****
2  *    helloworld: print a line                                *
3  *    Code Example for lecture 1, dated 10.04.19 *
4  *    *****/
5
6
7  // First, library headers are included.
8
9  // input/output library
10 #include <stdio.h>
11
12 /*
13     Program execution starts at the beginning of the
14     main function. The statements within the curly
15     braces are executed in the order as they appear
16     in the source code. Never forget the semicolon
17     after every statement or the program will not
18     compile.
19
20     The main function has a return type of int. The
21     return value is used to verify whether the program
22     executed successfully (return value 0) or with an
23     error (any other value).
24 */
25 int main(){
26     /*
27         The function printf from the standard I/O
28         library is called in order to print a line.
29         The escape character '\n' is utilised for
30         printing a new line.
31
32         More info on printf and other functions of the
33         same family can be found in the manual with the
34         shell command:
35
36         man 3 printf
37     */
38     printf("Hello World!\n");
39     /*
40         With the return statement, the current function
41         stops and the specified value is returned. Take
42         care as statements after the return statement
43         are NOT executed.
44     */
45     return 0;
46 }
47
48 /*
49     The program is compiled in the terminal by the use of
50
51     gcc helloworld.c -o helloworld
52
53     In general, it is beneficial to write a file called
54     "Makefile" with the content
55
56     helloworld:
57
58     and let the program "make" issue the compiling task
59     to be done. More info on make can be found in it's
60     manpage and will be provided in a later lecture.
61 */

```