

CSP1150/CSP5110: Programming Principles

Reading 4.2: Unnecessary Main Functions

Once the textbook introduces functions in Chapter 5, it begins to put the code that should be run when the program runs into a “`main()`” function, which is then called. For example, Program 5-2:

```
# This program has two functions. First we
# define the main function.
def main():
    print('I have a message for you.')
    message()
    print('Goodbye!')

# Next we define the message function.
def message():
    print('I am Arthur,')
    print('King of the Britons.')

# Call the main function.
main()
```

Python

Before this point, the code that we wanted to run when the program runs was simply written into the source code without being in a function. For example, Program 5-2 would look like this:

```
# Define the message function.
def message():
    print('I am Arthur,')
    print('King of the Britons.')

print('I have a message for you.')
message()
print('Goodbye!')
```

Python

As you can see, the code that was inside the main function has just been placed directly where the call to the main function was. Both of the programs achieve exactly the same thing, however the textbook insists on placing what it calls the “mainline logic” into a “`main()`” function. The “`main()`” function in these programs is only ever called once, as the first and only thing that the program does - the code inside the “`main()`” function contains the code of the program, calling other functions as need.

This is, in my opinion, completely unnecessary. It adds unnecessary code to the program and complicates the flow of processing, making it harder to read and understand the program’s logic. Placing code to be run when the program runs directly into the source code is perfectly fine.

Why does the textbook use unnecessary “`main()`” functions? It is likely a habit the author formed when coding in other languages. In some languages, e.g. C and Java, *everything* must be in a function and every program requires a function named “`main()`” that is run when the program starts.