CompSci 101
Lab 3 Functions

What is a function?

- A function is a named sequence of statements that execute when the function is called.

Example:

```
def calculate_bmi (weight, height):
    bmi = weight / (height ** 2)
    return bmi
```

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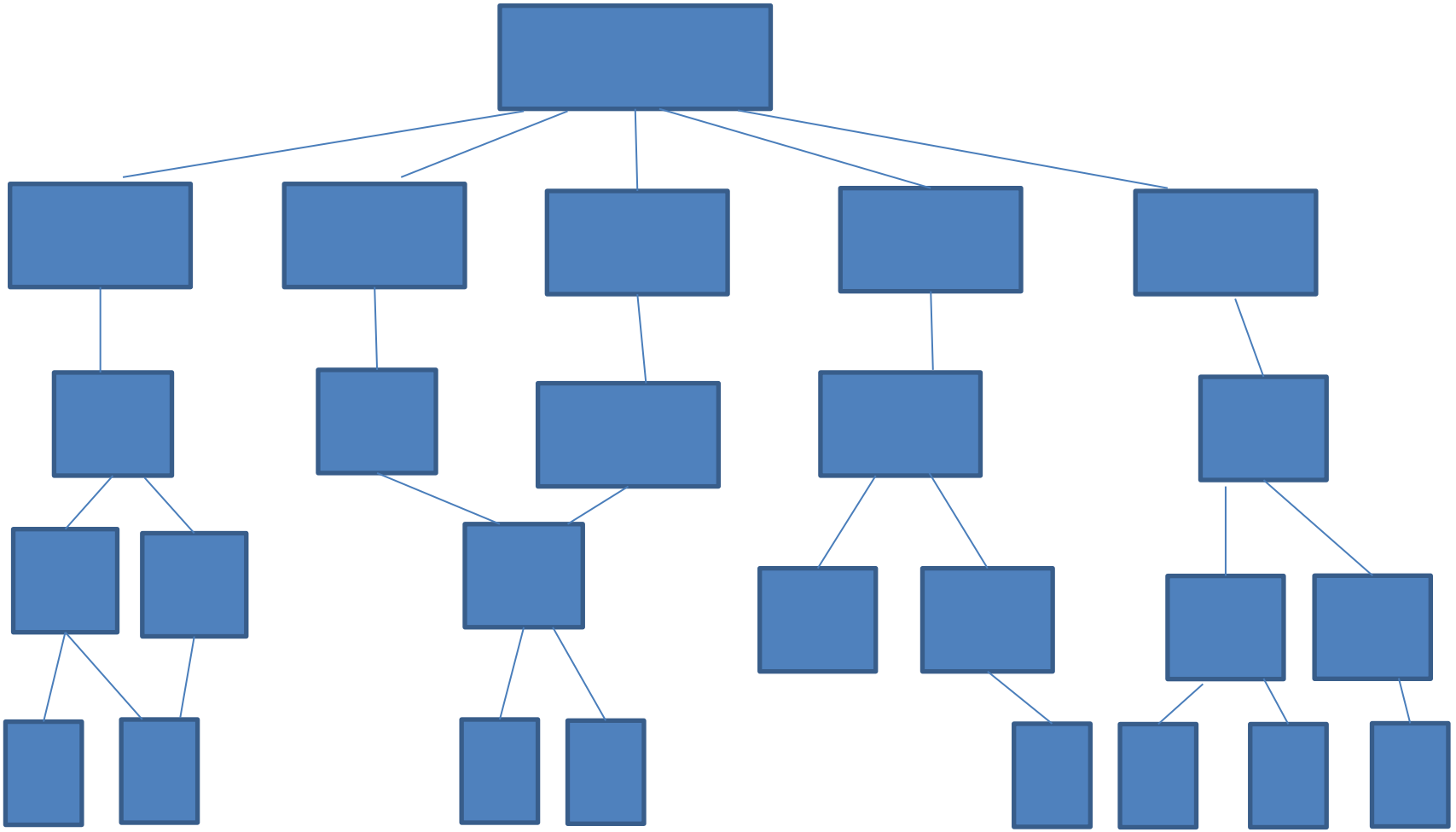
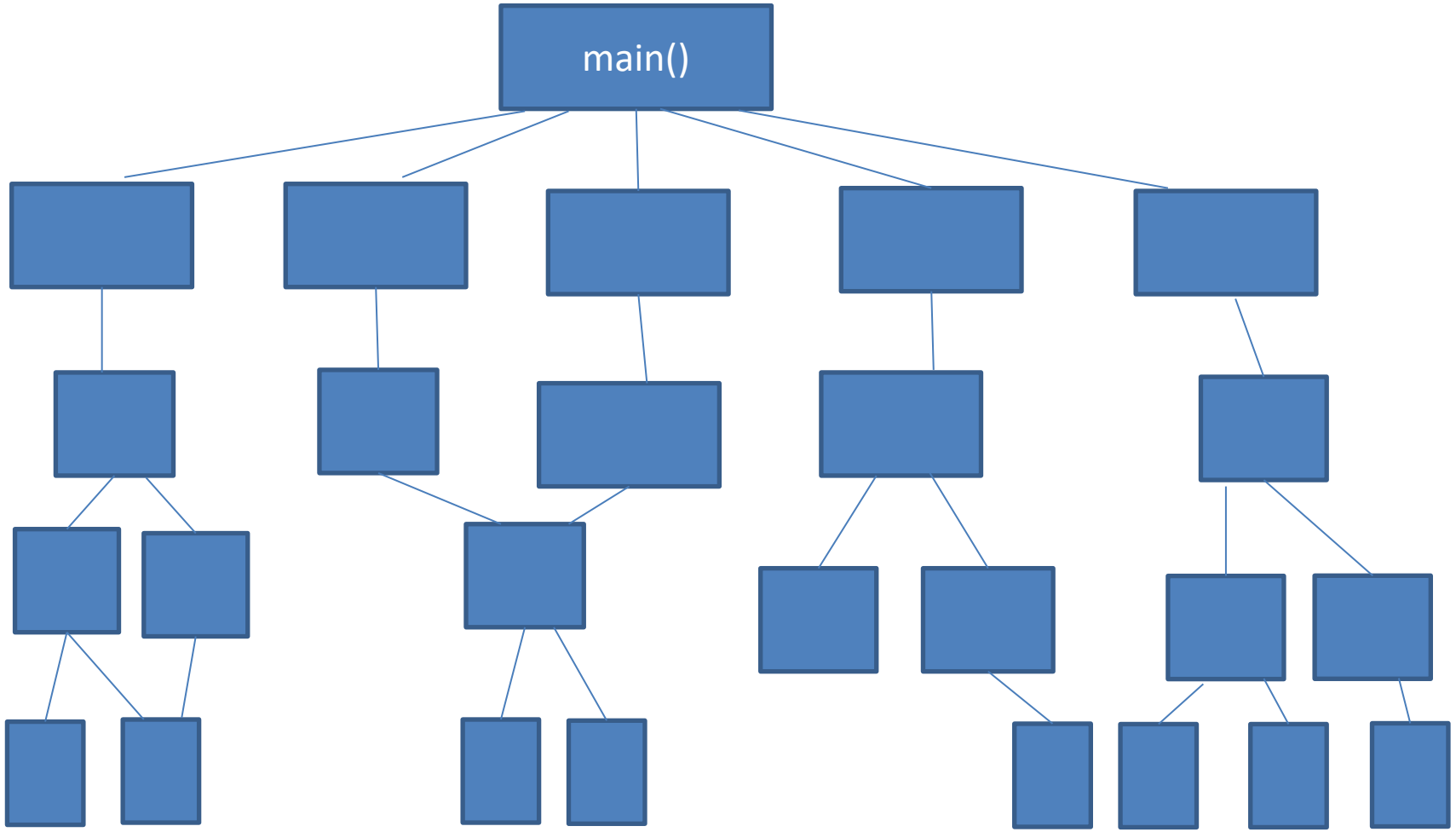
    bmi = weight / (height ** 2)
    return bmi
```

- The first line of the function is called the **header**
- **def** is a keyword that indicates that it is a function definition
- The function name is followed by a set of **brackets and a colon**
- Sometimes **parameters** are inside the brackets.
- Not all functions have parameters.
- The statements that follow the function header are **indented** and are called the **body** of the function.




main()

Why do we break our programs up into functions?

- Avoids repetition of code.
- Easier to debug program.
- Easier to modify program.
- Easier to write a program.
- Easier to read and understand a program.
- Easier to re-use code from other programs.
- Enables more than one person to contribute to the writing of a program.

How big should a function be?

- In general, the body of a function should be no more than 10 – 20 lines.
- One line is fine.

- **Important:**
  - **Just one task per function**