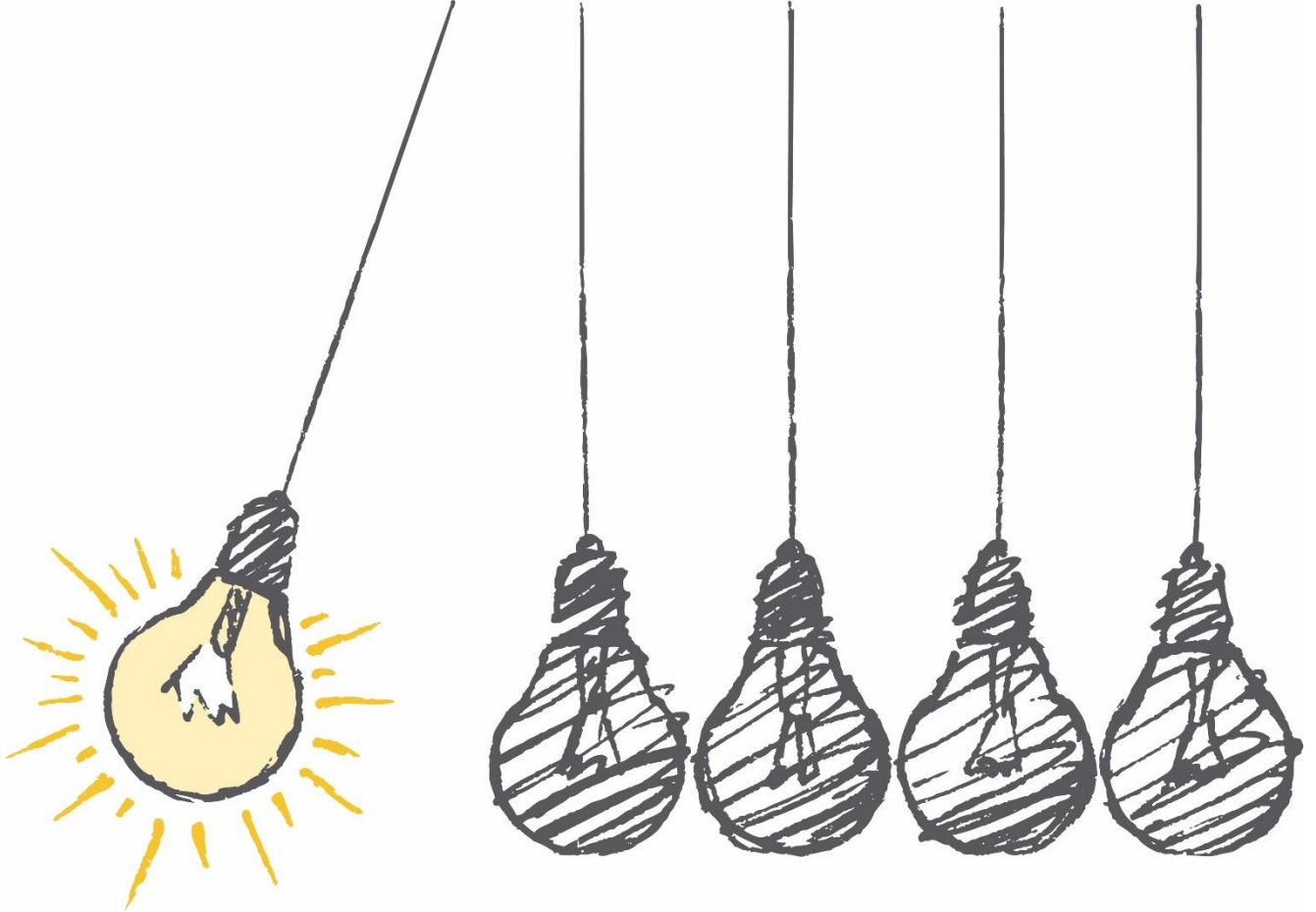
Pseudo coding



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What is pseudo-code?

- Pseudo code, as the name suggests, is a false code or a representation of code that is human-readable
- It is a way to start thinking about how to implement a task before actually implementing it

Data: this text
Result: how to write algorithm with LaTeX2e
initialization;
while *not at end of this document* **do**
    read current;
    if *understand* **then**
        go to next section;
        current section becomes this one;
    else
        go back to the beginning of current section;
    end
end

Algorithm 1: How to write algorithms

Why use pseudocode?

- Pseudo code explains in human words what each part of a code should do, so it's easier to think about the tasks
- It helps us learn about a task before fully implementing it, thus finding a good way to execute it, and identifying possible sources of error before we make mistakes
- When the actual code is written, the pseudo code turns into documentation and comments

How to write pseudocode?

1. Start by the big picture: what is the desired output? What inputs are needed to get there? What are the main steps required between them?
2. Elaborate a little bit on the details of each step.
3. Read the instructions. Are they clear for other people to read? Would a rubber duck be able to follow them and get to the desired output?
4. If not, break the sub-steps into more steps.
5. What are possible sources of confusion in the instructions? What could go wrong?
6. Repeat steps 2-5 until you are going into so much detail that it is more useful to just write code.

Now, who’s hungry?

Over the next 30 minutes

- Groups 1 to 4 will write instructions to make PBJ sandwiches
- Groups 5 to 7 will write instructions to make grilled cheese
- Write final instructions on the pads and stick them to the wall, above the ingredients

Over the following 10 minutes

- Break into pairs, and head to a set of instructions that was not written by your group
- One person in the pair will be the compiler, and the other person, the CPU
- The compiler will read each step out loud, and the CPU will execute it
- The CPU can only do what is described by the compiler!


Thank you!