Sample PB&J Algorithm with Feedback

coursera.org/learn/programming-fundamentals/supplement/v1EKj/sample-pb-j-algorithm-with-feedback

PB&J Algorithm

Genevieve gave Drew the following algorithm for making a peanut butter and jelly sandwich to execute:

1. Get out one piece of bread.

2. Use a knife to put the peanut butter on it.

3. Get out another piece of bread.

4. Use the knife to put the jelly on.

5. Put the two pieces of bread together.

Feedback

After executing it several times with different ingredients and equipment, Drew provided this feedback on how the algorithm could be improved:

This algorithm could be parameterized by the type of bread, peanut butter, and jelly. Otherwise, steps 1 and 3 are clear.

There is a missing step between 1 and 2—it implies that one should open the jar of peanut butter, but it should be stated explicitly.

In steps 2, 4, and 5, the word "put" is imprecise. Saying "use the knife to spread three tablespoons of peanut butter evenly on one side of the slice of bread" would be clearer. Similarly for jelly, the algorithm could say "use the knife to spread two tablespoons of jelly on one side of the second slice of bread."

I know from experience (and common sense) that the sides of bread with peanut butter or jelly should be facing each other when the sandwich is assembled, but there are several geometric possibilities. The algorithm would be clearer to state "with the peanut butter side of the first slice and the jelly side of the second slice facing each other, assemble the sandwich by gently pressing them together."

Finally, including a last step on how to plate or eat the sandwich would make it clearer to the reader.

A note on civility

Note that Drew suggested improvements for the algorithm by addressing "the algorithm" or by saying changing an aspect "would be clearer." Please be careful as you write feedback to your peers that any criticism is polite, constructive, and directed toward the assignment, not the individual who wrote it.