Making Things Functional

Code Your Story: Session 5

Pixel Programming: Warm Up

Prompt: How do you draw a basic house? As a class, create the algorithm for this in pseudocode; it might look something like this:

- Draw a rectangle for the first story
- Draw a smaller rectangle on top for the second story
- Draw triangles and slanted lines for the roof
- Draw a bunch of squares, split into four, for the windows with four panes
- And so on

Pixel Programming

- *Functions*: a programmer-defined bundle of codes that does something. Programmers can and should define their own functions.
- Functions also allow for a lot of code reuse, and they allow a programmer to focus on one part of the problem instead of multiple parts. When figuring out how to draw a rectangle, for example, a programmer can look at the code for the function itself; when thinking about how to use a rectangle, all a programmer needs is the function's name.

Portrait of the Programmer as a Young Newbie

Time to write a story! The story can be about anyone—a programmer, an artist, a cultural figure, their fearless teacher, or even yourself—as middle schoolers *or* as an international spy.

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Functional Mural

- What new art could you create with this new, much broader set of functions?
- What are some examples of the still-more-complex functions, and then gather *those* in the same central place.
- This shows that functions enable programmers to more easily create increasingly more complex functions.