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Our original proposal:

<https://docs.google.com/document/d/1mEe-4GEFpcZEeyl2G34ltwINPKnQzhwdpae35cxVQHk/edit?usp=sharing>

## **Big idea**

Overall, the general idea of our project, including its functionalities and the different elements of the program remained true to our original design. There has, of course, been small tweaks:

1. We chose to do an end of day summary instead of telling the user results with each click
  - a. This was a more visually organized way of letting the player know what they did or did not sort correctly
  - b. It also makes the game feel more like a journey the user goes through and shows how each of their choices influence the next stage of the game
2. The flowers are pre-planted and animated instead of planted with user input
  - a. The animations taught us a lot about how classes interact with each other and JFrame as we had to figure out how to draw its different frames and erase previous frames without messing up the rest of the program. The swaying sprouts/flowers also adds some life into the otherwise static visuals. They still grow with each day's sorting results.
3. We did not end up implementing an animation simulating the composting process, but instead added 41 fun facts that generates at random with each pop-up screen item which tells the user a bit about the composting process/our process behind creating this program
  - a. This allowed us to implement a built-in data structure as well as randomization. This, we think, also adds a bit of fun and humor into the game.

## **Code**

In terms of code, our general classes also adhered relatively well to our original plan. However, the methods we define and the way they interact with each other have changed significantly as we learned throughout our coding process.

We originally intended to have 6 classes: Home, Button, Garden, Game (Main), Compost & Pop-up Screen

And 1 Items interface with many classes extending it.

In our final code, we also have 6 classes: Home, Flower, sortingPopup, Main, Garden & FunFact. The Flower class is mostly for the logistics of drawing and animating the flowers. The FunFact class takes in a facts.txt and randomly chooses fun facts from it to print. We did not end up writing the Button class as JButton was expansive enough, and the Compost class was encompassed in the sortingPopup.

We still have our item interface with 40 item classes extending it, each with their own graphic and draw coordinates.

In retrospect, the methods in our original plan were too vague and we ended up writing most of them from scratch as they came up. So we wouldn't say we deviated from the plan as much as created a more detailed one as we went. But overall, we did stay mostly true to our original vision in creating an educational game that coaches its user through the process of composting.