Final Project Proposal
Cucumber Farm

General Description of Project:
Our final project proposal is to create an in-terminal simulation of cucumber farming.
The goal of the game is to generate as much profit as possible in 15 "weeks."
Each week is defined as a stage in the game.

At the beginning of the game, the user starts with 4 plots of land and 2 quick-growing cucumber seeds.

At the beginning of each stage, the user interacts with his or her farm by planting, fertilizing, and/or harvesting his or her cucumbers, or he/she can purchase seeds of different cucumber species. While cucumber species that are highly nutritious grow, they also generate money. When the user "harvests" cucumbers, he or she automatically sells them for money at a price that depends on the value of the cucumber based on the amount of time needed to grow. More nutritious cucumbers are more costly. The user may also spend his or her money on more plots of land.

If the user attempts to plant in a plot of land he or she does not own, he or she must either pay a fine or "go to jail" (the game ends).

The game must end when the user has no money left or 15 weeks have elapsed.

Prioritized To-do List and Rough Timeline:
1. Have a fully function game (Done by Friday, 1/12)
   a. Create the farm plot
   b. Create the different types of cucumbers as subclasses to a cucumber superclass
   c. Code the cycling through of the stages of the game
2. Begin Error Handling (Done by Sunday, 1/14)
   a. Address what to do if the user input doesn't comply with what it should be
3. Add Elements of Randomness (Done by Tuesday, 1/16)
   a. Try to make sure that every game is different
4. Add any other intricacies/ideas we come up with

A Rough Draft of what our OOP hierarchy will look like:
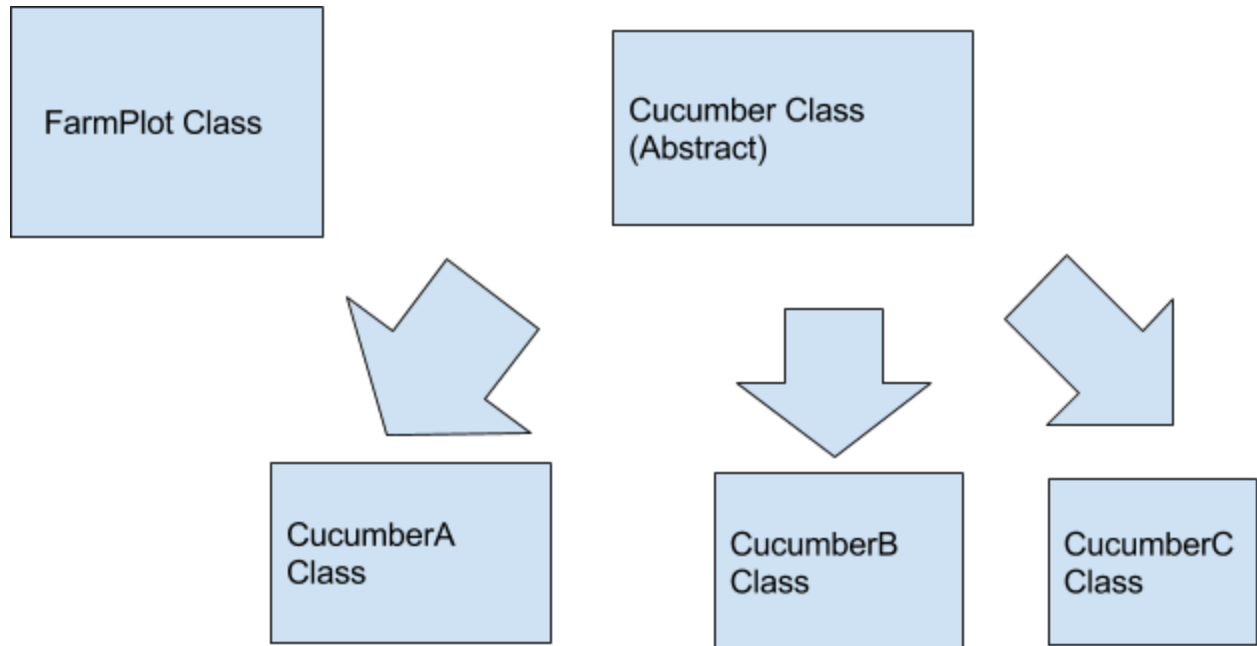
Concepts Addressed in Our Project:

- 2D arrays - FarmPlot Class will be one large 2D array
- For loops, While loops, For-each loops, and recursion - used to go through FarmPlot class
- Using Keyboard.java for user input
- Abstract Classes and Inheritance - Used with cucumber hierarchy
- Math.random - Used to incorporate elements of randomness