

The Scenario:

My client, an 11th Grade student, approached me to create a story based game for entertainment purposes. After discussion, we came up with the concept of creating a space colonization simulator game. With this in mind, I want the game to be simple enough where I am realistically able to create a finished product at the end of three weeks, but interesting and fun enough that the client will enjoy and play the game. Due to our shared interests in science fiction, I decided that a game set in space would be both interesting for me to make and for my client to play. Due to the time constraints on the development of the game and my lack of experience in game creation, I decided a simple simulation clicker game would be the best option for this project. The client wanted the game to have different degrees of difficulty and be challenging and intellectually stimulating, but still playable for the average person.

Rationale:

I decided to use Java and the Java Swing GUI library due to my familiarity with language and library from using it in computer science class. Due to limited graphics that I plan on implementing, the Java GUI interface will suffice for this project. The strengths of the object oriented design of the language will be useful to develop aspects of the game like population, resources, machines, among other features. Although not very important, due to the relatively large number of simultaneous calculations involved in the game, Java may be better suited for this project compared to a slow interpreted language like Python.

Success Criteria:

- Functional simulation game with changing date, resources, and population
- Functional and usable UI that is easy to navigate and displays clearly all the metrics
- No technical problems (code errors or game crashes)
- Game is enjoyed by the client
- Game is easy to navigate and understand quickly