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Final Project Proposal
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Tower Defense Game

We are going to use a matrix for a map to store the coordinates of the towers and the enemies. We are going to design towers and enemies by importing images which we will design ourselves. There superclass of towers and subclasses for the different types of towers and this same concept will apply to enemies as well. The map will be randomly generated and there will be a path in which the enemies can traverse using a **pathfinder** algorithm with a start and a an end. The map will have a path that's a specific color surrounded by a different color and the enemies will use an algorithm similar to mazeFinder and use backtracking to get to the end. The player will have a set amount of health and once the health reaches 0 they will die. The enemies will have a health. Enemies and towers will have different attributes. Certain towers do more/less damage depending on who they're attacking (specialties). Towers will cost money which is earned by killing things. The lower an enemy has, the slower it moves. Enemies will also have attributes (i.e., a goblin would have spikes which deals damage to towers when attacked).

Classes:

Tower

- Archer - Warrior
- Catapult
- Knight

Enemy

- Goblins
- Dragon
- Skeleton
- Spider

Driver