W11 Final Project Planning

Game which I want to create:

* Colony-building game.
* Official name which I call it: TBD

Top priority requirements for my program to be playable

* Map
* Resources
* Population
* Settlements
* Elements of hunger and population growth
* Ability to build new settlements and roads
* Ability to manage the means of resource production
* Ability to spend resources on behalf of the colony

Low priority requirements

* Random events which may be positive or negative
* Conquering or making treaties with already-existing towns
* Ability to make defenses to defend against attackers
* Creation of a militia to attack or defend against attackers
* Ability to zoom-in on a specific town to manage small town affairs
* Multiple game-modes which have different objectives; for example, to conquer the entire map within a given time period, build a successful colony under harsh Indian attacks, be a peaceful nation and never attack and always make treaties, and so forth.
* Upgrade towns or settlements into other board pieces which specialize in certain things, such as a fort, a city, a logging town, a mining town, etc.

Classes I anticipate I will need

* Program
  + Execute the Director
* Director
  + Direct the actors, execute the script
* DrawActorsAction
  + Draw the actors on the screen
* ManageTimeAction
  + Keep track of time which has passed in the game, and coordinate timed events
* BuildAction
  + Build new things in their locations
* SpendResourcesAction
  + Take away resources if they are available as the player desires
* ManageResourcesAction
  + Mange the growth and natural destruction of the player’s resources
* MangePopulationAction
  + Manage the growth and natural destruction of the player’s population
* InputService
  + Get input from the user and validate it
* OutputService
  + Display things to the screen
* Map
  + Have an image of the map and the relevant locations on it
* Resources
  + Stores the quantity of each resource.
* Population
  + Stores the population quantity
* Settlement
  + Contains the relevant information about a settlement
* Road
  + Contains the relevant information about a road
* Farm
  + Contains the relevant information about a farm
* Mine
  + Contains the relevant information about a mine
* Hunger
  + Contains the natural food destruction rate according to the population
* PopulationGrowth
  + Contains the population growth rate
* ResourceProduction
  + Contains the production rates for each resource according to their means of production
* Constants
  + Contains game-wide constants