Week 3 Milestone: Project proposal

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Problem Statement:

We need to create a player board that can contain spaces for city buildings, plantations, and resources. We also must object classes specific for the 3 ships, trading houses, the supply of resources and most importantly the doubloons. We must create role classes that will allow the player to have certain actions. Next we will have to set up some turned-based resource cycle system. This method will allow players to grow crops over time which will give the ability to change points for doubloons. Another issue that could arise must be found within the way the players will use doubloons. Since doubloons can buy buildings, produce more crops or give them abilities, we need to create a check system via method where we check if a player can buy certain goods or services. A round count must also be created but that will probably be held as a game-scope integer variable. The mayor or governor of the Puerto Rico game will also have to be accounted for somewhere within the code. This too will probably be iterated over as a method that automatically switches each player out as governor and gives the player a token and allows them to choose a role and take the first action. A victory point system will be created as a method to where the player will automatically be given a point after creating a certain amount of buildings, shipping a certain amount of goods, and owning “large buildings”.

Features:

1. Program has a main screen
   1. Main screen contains “new game” and “quit” button
2. User gets to select number of players
   1. Has a dialog for selecting.
3. Program has a GUI for the board
   1. Player class keeps track of the following:
      1. Role:
         1. Mayor, Settler, Builder, Craftsman, Trader, Captain, Prospector
      2. Goods:
      3. Island:
      4. Buildings:
   2. Players can trade
      1. Sell, or buy
   3. Players can make buildings
   4. Players can grow plantations
      1. Plantations inside islands
4. Program notifies user’s each turn
5. Game ends if
   1. Mayor is selected and there are not enough colonists to refill the colonist ship with the appropriate amount.
   2. Captain is selected and the last victory point chip is given to a player. (Additional chips are to be used once the supply is exhausted)
   3. Builder is selected and at least one player has built their 12th city space.
6. Game has a congratulations screen.

