Moonshot: Colony on Mars

**Basic Information**

**Engine/Programming Language:**

Godot – new learning experience, and the architecture interests me. Language is GDScript, a python-like scripting language.

**Project Length:** 20 days for a working POC-type prototype. This design doc will deal with that MVP.

**Game Summary:**

Imagine a cute Cities Skylines on Mars. Pared-down city building mechanics, focusing on survivability of the colony on an extraterrestrial planet. Basic RCI (residential, commercial, industrial) breakdown, most focus on meeting needs of a growing population. Simulated, not agent-based AI. Design will evoke feelings of accomplishment and realized potential (given the theme of Moonshot).

**Gameplay:** Simplified City-Builder, possibly with some defense/disaster management. Most gameplay will be focused around establishing infrastructure, housing, entertainment, and industry, and research.

**Original Concept:** Imagine a cute Cities Skylines on Mars. Humanity must establish a colony on Mars that can thrive.

**Team Organization:** We have 1 programmer, and 1 artist. Both will fill design & writing roles as needed. Audio will mostly be managed through free assets, etc.

**Game Design**

Answer the following questions about your proposed project as described in Chapter 3 of Fullerton:

* **Game Interface Sections:** 
  + **Main Menu (options, play game)**
  + **options**
    - **volume (sound effects, music)**
    - **graphical options (postprocessing, frame lock, quality, etc.)**
  + **Game Scene**
    - **statistics**
    - **money/cash flow**
    - **population**
    - **zones (?)**
  + **Statistics Page**
    - **detailed view on:**
      * **cash flow**
      * **demand**
      * **building stats**
      * **progress towards goal**
  + **Construction Menu**
    - **buildings sorted by category/zone (?)**
* **Players:**

Single Player vs. Game, stretch goal to add some co-op

* **Objectives:** 
  + Each iteration will see the player attempting to build a colony that can support a certain number of settlers. Each iteration’s success (or failure) will feed into the next iteration’s starting point.
  + Separate game mode to just build a city in a sandbox, more traditional city-builder style game. This will have “rankings” of a kind (initially just local, stretch goal to network), that will provide in-game bonuses like the bonuses to starting conditions in the main gameplay mode.
* **Procedures: <***What control types will the game accept? What are the basic control mechanics? How does the player achieve the goals listed above?>*
* **Rules: <***What are the rules in your environment?>*
* **Resources: *<****What resources do players use?>*
* **Win Conditions/Outcomes: <***What are the specific goals of the player during gameplay?>*
* **Game Mechanics: <***Outline specific mechanics.>*
* **Extension: <***What modules of the game will be designed later? (levels, powerups, characters...)>*

**Game Asset Requirements**

Answer the follow questions regarding the content needed for your game.

* **Programming:** *<Are you using a pre-existing engine or coding everything from scratch? What else needs to be programmed? How will you do it?>*
* **Visual content:** *<Is the game 2D or 3D? How much 2D or 3D content will you need? How much content will you need for the user interface?>*
* **Audio content:** *<Does the game have music and sound? How many music tracks are needed? Roughly how many sound effects are needed?>*
* **Game Units:** *<How many game levels does the game contain? How will you produce them? Is any work required to implement the tools used to produce the game levels?>*
* **Writing:** *<Does the game have a story line / script? How much time will be needed to fully produce this?>*