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**Build Notes – RTS Town Builder Project**

**Project Idea**

I am creating a small RTS-style town builder game. The goal of this assignment is to practice and improve my game development skills in areas that are essential for building complex simulation and strategy games. Specifically, I want to focus on:

* **Building placement mechanics:** Learning how to allow players to place buildings intuitively and handle placement rules (like snapping to a grid or avoiding overlaps) is fundamental for any strategy game.
* **Economy management:** Implementing resource collection, expenses, and profits helps me understand core gameplay loops that drive player decision-making.
* **UI design:** Creating clear and functional interfaces is critical to provide feedback and control to the player.
* **Random NPC movement:** Adding life to the town through wandering NPCs helps me learn pathfinding, AI behavior, and event interactions.
* **Path building:** Developing a system for roads or paths teaches me procedural generation and connectivity logic for town planning.
* **Random vegetation and stone generation:** Populating the environment dynamically improves the visual appeal of the game and teaches procedural content creation.

**Milestones**

**1. Proof of Concept:**

* Implement main building placement mechanic
* Create a simple economy management system
* Build a basic UI
* Camera movement
* Add several building prefabs for testing
* Focus on core functionality over visuals
* Ensure buildings can be placed and resources are deducted correctly

**2. Prototype:**

* Add a path builder system for roads or building connections
* Implement random NPCs walking around the town
* Add building rotation
* Implement profit generation from buildings per second/minute
* Make UI show building income/profit updates
* Add sounds and music

**3. Final Game:**

* Add random vegetation and decorative objects to populate the town
* Polish bugs and refine gameplay mechanics
* Improve assets for visual consistency
* Add more building prefabs
* Final testing and polishing of UI and systems
* Ensure all systems integrate smoothly

**How to Play:**

* **Select a building** – Choose the type of building you want to place from the building menu.
* **Place the building** – Move the building preview to the desired location and click to place it on the map.
* **Manage your town** – Monitor your resources and economy as buildings generate income or consume resources.

**Controls:**

* **Mouse click:** Place the selected building
* **Right mouse button + move mouse:** Rotate the camera
* **Mouse scroll wheel:** Zoom in/out

**Currently Implemented:**

* **Proof of Concept**

**Notes:**

* **The “How to Play” section will be updated as more features are added to the game.**