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Vision Statement

Project Goals:

The project is designed to compare the gameplay and design differences between five algorithms that create video game levels automatically, using Procedural Generation. The main goal of the project is to expose the user to levels which are a product of said algorithms as opposed to manually created levels they are already familiar with.

Project scope:

Included:

- The map size is decided by the user.
- The system will create five levels according to the different algorithms.
- It is possible to move to another level at any time.
- The difficulty of the level is tunable by the user (spawn more enemies, enemies have more HP etc).

Not included:

- Analyzing which algorithms were most preferred by users.

Features:

Essential:

- Create game level from algorithm output.
- Moving between the generated levels flawlessly.

Desirable:

- Map sizing.
- Difficulty tweaking.
- Document explanations of the process of connecting AWS to a Unity project.

Major milestones and deliverables

There are five main milestones in this project:

- Connection to AWS – will run the five algorithms.
- Redeploy trigger between AWS and GitHub Actions (on push).
- Connection between AWS and Unity (HTTP).
- Creation of game levels from algorithm output.
- Creation of intuitive UI/UX.

Elevator Statement

The Project is a game that creates game levels automatically. Unlike most games in the market, this game will engage with the field of Procedural Generation by dynamically creating randomized game levels. Our product creates different stages of the same computer game with the help of various algorithms and lets the user make comparisons and self-assessment of the Procedural Generation method. Meant for Gamers and just people who love to play video games casually that want to try playing a different kind of game than what is known as the “standard”.