INDECISIVE STUDIOS
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PROCEDURAL GENERATION

OVERVIEW

Adventure in a procedurally generated, infinite world and collect pictures of a wide assortment of fauna and flora!

Mesh Generation & Coloration
- Grid-based point generation, then Delaunay Triangulation to convert points -> triangles
- Biomes implemented via 'height' and 'moisture' Perlin maps
- Gradual biome blend

Flora Generation
- 3 Perlin maps for 6 types of flora
- Iterate through 1*1 grid in every 80*80 chunk
- Value on Perlin maps dictates if a plant in that grid should be generated

ARTIFICIAL INTELLIGENCE

Wildlife
- Perlin map for spawn placement and types
- Animal roaming behaviors with randomized locations
- Use senses to determine how to act around other animals
- Decisions on actions when no other animals present

SCENES AND SERIALIZATION

Scenes
- The Grove is the player's persistent storage
- Additive scene used to move player quickly between The Grove & Wilderness

Serialization & Saving
- Utilizes C# XMLSerialization
- ".png" files saved in organized hierarchy, tracked by filenames serialized in ".xml"