

Random Animal Stampede

1. Create a spawn manager

- In the Hierarchy, create an **Empty object** called "SpawnManager"
- Create a new script called "SpawnManager", attach it to the **Spawn Manager**, and open it
- Declare new **public GameObject[] animalPrefabs;**
- In the Inspector, change the **Array size** to match your animal count, then **assign** your animals by **dragging** them from the Project window into the empty slots **Note:** Make sure you drag them from the **Project** window; not the Hierarchy! If you're going to spawn objects, you need to make sure you're using Prefabs, which are stored in the Project window.

2. Spawn an animal if S is pressed

- In **Update()**, write an if-then statement to **instantiate** a new animal prefab at the top of the screen if **S** is pressed
- Declare a new **public int animalIndex** and incorporate it in the **Instantiate** call, then test editing the value in the Inspector

3. Spawn random animals from an array

- In the if-statement checking if S is pressed, generate a random **int animalIndex** between 0 and the length of the array
- Remove the global **animalIndex** variable, since it is only needed locally in the **if-statement**

4. Randomize the spawn location

- **Replace** the X value for the Vector3 with **Random.Range(-20, 20)**, then test
- Within the **if-statement**, make a new local **Vector3 spawnPos** variable
- At the top of the class, create **private float** variables for **spawnRangeX** and **spawnPosZ**

5. Change the perspective of the camera

- Toggle between **Perspective** and **Isometric** view in the Scene view to appreciate the difference
- Select the **camera** and change the **Projection** from “Perspective” to “Orthographic”

6. Lesson Recap

New Functionality

- The player can press the S to spawn an animal
- Animal selection and spawn location are randomized
- Camera projection (perspective/orthographic) selected

New Concepts & Skills

- Spawn Manager
- Arrays
- Keycodes
- Random generation
- Local vs Global variables
- Perspective vs Isometric projections

Next Lesson

- Using collisions to feed our animals!

Revision #4

Created 23 May 2023 09:15:11 by naruzkurai

Updated 18 June 2023 09:54:37 by naruzkurai