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IGME 202.05

Flocking - Project 5

Description:

This project focuses on flocking mechanics of fish, while still avoiding other objects such as the whale and ground objects. There is also an implementation of pathfinding where the whale follows the bubbles.

User Controls:

The user has 4 options available to them currently.

1. Press 'F' to spawn a fish.
2. Press 'D' to toggle debug lines on and off.
3. Press 'C' to change camera views.

Above and beyond:

- I made lava bubbles that come out of the ground that move, so the fish have to avoid moving targets as the lava ascends. The lava is also destroyed when they get high enough to no longer be seen.
- I added obstacles that the fish need to avoid dynamically, so I can continuously adding more assets and not need to code anything else for the additional obstacles that needs to be avoided.

No errors and everything is completed as far as I am aware.

Source of Assets:

Fish - <https://assetstore.unity.com/packages/3d/environments/simplistic-low-poly-nature-93894>

Whale- <https://assetstore.unity.com/packages/3d/characters/animals/humpback-whale-3547>

Lava and ground objects -

<https://assetstore.unity.com/packages/3d/environments/fantasy/free-low-poly-lava-plants-145043>

bubbles-

<https://assetstore.unity.com/packages/vfx/particles/environment/jiggly-bubble-free-61236>

Notes:

I wasn't able to get the mesh sizes to make the obstacle avoidance more dynamic to the sizes of each asset, so there may be some clipping every now and then on the really big objects.