Project Title: Fish Frenz

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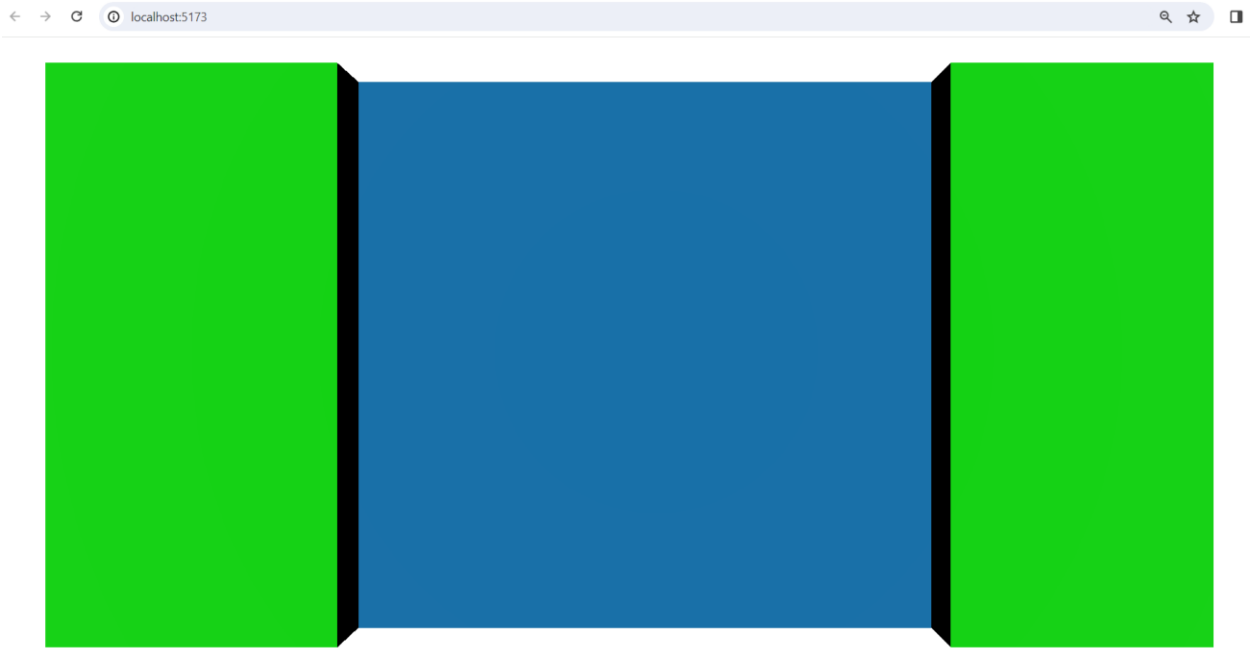
Couse: COMP 4303: Ai in Computer Games

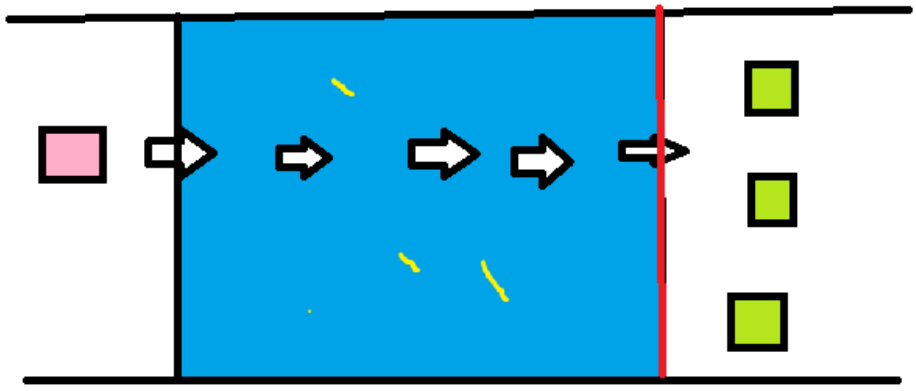
Date: 14/03/2024

Description of the game:

To start with, we have decided to make a shooting style game. The game represents the player as the savior of the fish community. The fish community consists of 15 members. The community is under attack from the cubical Crocodiles. The goal of the user is to save all the fishes under attack from the enemy. To aid the user in his cause, we have equipped them with a taser gun, so when the enemy gets hit by the bullets they are paralyzed for 7 seconds. The User loses the game when the enemy crocodile has taken at least 3 fishes as his dinner. The user wins the game if they have collected all the fish friends by hovering over them. We decided to choose this theme because, we felt that the user will be able to utilize their shooting skills, get a feeling of protecting their friends, develop a feeling of competition against the enemy as well as, expressing their love for the aquatic animals!



The above illustrates our game map. The green tiles on both sides of the map indicate the river banks where the user and the enemy are supposed to spawn. The blue tiles in the middle denotes the river where the fishes are to roam.



The above figure describes an overview of the visual structure of the game and its functionality. As we can see. The user is depicted in pink square, the crocodiles in green. The fish friends depicted in yellow lines will spawn and roam in the river. The crocodile will come inside the river to charge the fishes. The user can shoot bullets when the crocodile has passed the red line, as depicted in the figure, to paralyze the crocodile and save the fishes in the meantime. Only the user and the enemy can access any location in the map although the fishes are strictly bounded in the river.

Core Features and Functionality:

The User will be provided with the ability to move with keypress(W, A, S, D). For shooting bullets, they will be able to use the space bar. The rest of all the characters in the game will be controlled by the game Ai.

Categories:

- Complex Movement Algorithms:
    - Wander.
    - Collision avoidance.
- Pathfinding:
    - Hierarchical A*.
- State Machine.
- We would like to use Procedural content generation for spawning the fish friends.
- Pursue.

Responsibilities:

There is no strict division of workload since we plan to work on the project together contributing equally to the project results.