

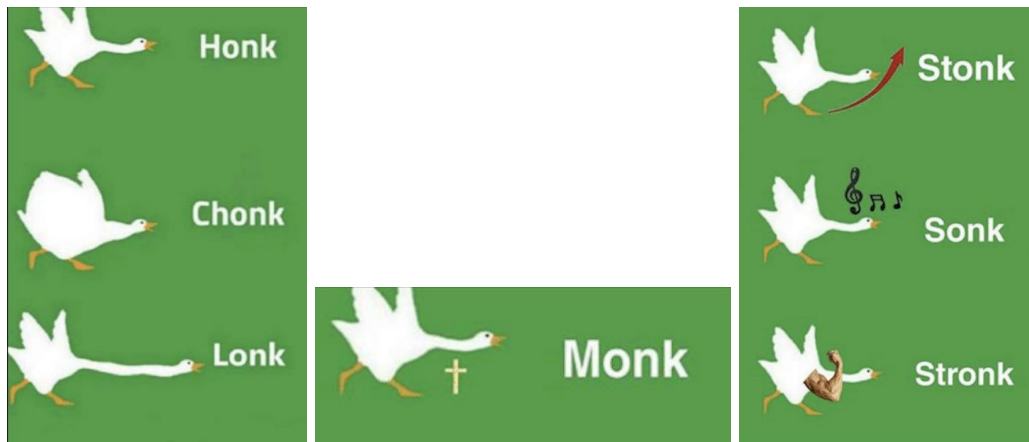
CS 174A Project Proposal: Untitled Geese Game

Team:

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General Overview:

Our story for this game involves a group of geese battling another group of geese in a turn-based tile-based strategic action game. This game is played in an arena, where each team of geese start off on opposite sides of the field. Each team of geese is composed of these classes:



Honk - Basic, well-rounded.

Lonk - Longer range.

Sonk - Inspires adjacent characters to do an action twice

Monk - Magic attack, low defense, normal movement

Stronk - High attack, low movement.

Chonk - Chonky, high defense, low movement.

Stonk - Provide game currency.

Each goose has their own stats that include health points, attack, magic, defense, movement range, and attack range.

The game is turn-based, in which each side has to do an action with all units before proceeding to the opponent's turn. Each goose unit moves in a tile-based pattern and can attack any enemy unit in range. The goal is to defeat all the enemy units and you lose by losing all your units.

Currency is passively given by the Stonk unit and allows the player to upgrade their units' stats.

The game is a 3D game with chess-like elements, but once a unit initiates an attack with a foe unit, it zooms in and does a little battle simulation between the two units with nice animations (damage depends on stats).

Game interactivity: At the beginning of the game, you place your geese on the board (you are given 2 honks, and 1 of all the other characters to place). Then, each team takes a turn during which for each goose you choose one of the following options:

- 1) Move and attack, or just move, or just attack
- 2) Upgrade
- 3) Do nothing

Mouse interactivity: You can hover over your geese and your stats will pop up in some textboxes. When your goose is selected, your goose will start rotating. Then, select a tile to move and this will undergo turn option (1), or select upgrade to undergo option (2). Click Finish Turn, to finalize your turn.

What topics learnt in the course is used and how?

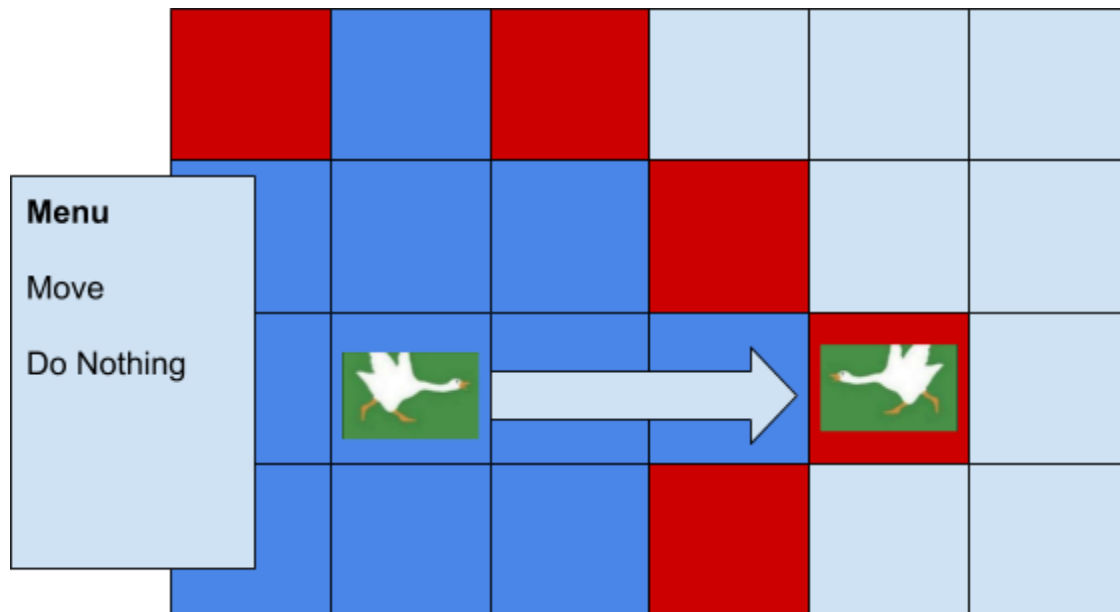
Some topics used in this project that were learned in the course are translating, rotating, and scaling objects in worldspace to model and animate the geese. In order to give a proper movement of the geese's body parts we will utilize the parent-child transform hierarchy. We will also use shading to make nice looking attack animation effects and differentiate geese.

Advanced Features

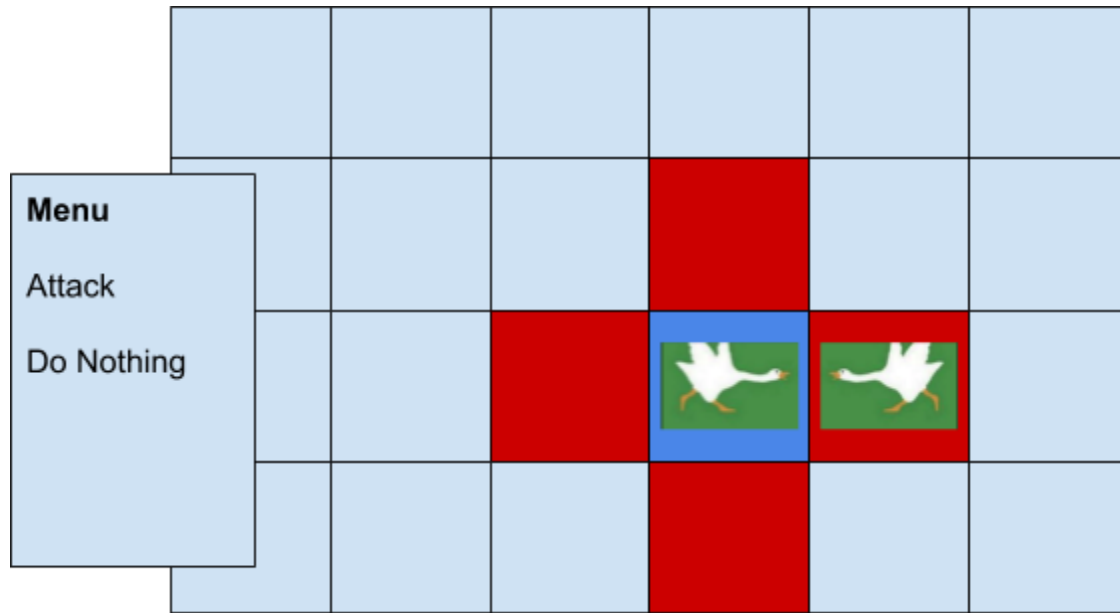
Some advanced features we'll be implementing is picking for selecting geese units via a mouse click, as well as shadows to make the scene look nice and more realistic. We can also implement a bump map for the terrain to make it look nicer.

Example of a player unit action turn:

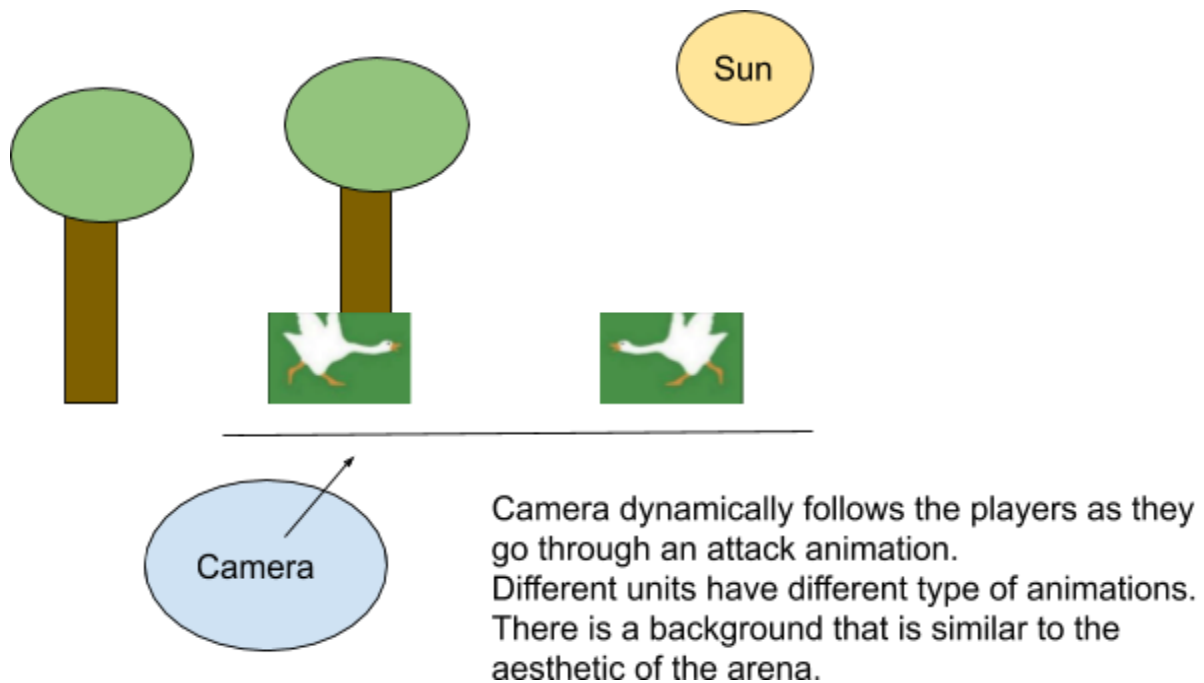
Example of Movement after selecting a unit (Camera is looking Top down to arena)



Player unit can move anywhere within the blue tiles and maximum attack range is indicated by the red tiles. In this case, the selected unit can move to attack the other unit. Once they move into range. they can attack.



If the player unit attacks, the camera goes from a top down view to zoom into the two units engaging in a battle. Note that despite the pictures being 2D, the environment will be in 3D and the camera will dynamically follow the simulation.



Afterwards the camera zooms back out to the top down view of the arena. Player can select another unit and do an action.

Ideas

Goose Class -> Derived Character Classes

Save all different goose states to submit as shapes, flip through different shapes at a controlled frame rate

Vector of structs, one struct per goose put hp and stats in here

Functions to animate through our different goose states

Animate a goose when moving from tile to tile, like a board game piece