Snake2

2D Game - CSCI 2941/IWKS 3400

Project Description

*The game is based off the concept of Snake and a tabletop game called Tsuro of the Seas. It is a two-player version of Snake with some changes. Each player uses a different set of keys and controls their snake, with the aim of eating food and eventually the other snake.*

1. Characters  
   *One player represents the red snake and the other the blue snake. The snakes are first represented as a single pixel graphic. The players play against each other.*
2. Story  
   *The two players want to eat food and the opponent’s tail and grow their snake larger than their opponent in order to beat the other snake in head-on collision.*
3. Story Progression *There is no level progression in this game.*
4. Gameplay
   1. Goal / Winning  
      *A player wins when the heads of the snakes collide and their snake is the longer snake.*
   2. User Skills *Player one controls the snake with up, down, left, and right arrows keys while player two controls the snake with W, S, A, and D keys.*
   3. Game Mechanics  
      *Randomized food spawn, growth of tails when food is eaten, ability of snakes to remove part of opponent’s tail, collisions between snakes.*
   4. Items & powerups  
      *There is one item and one powerup for the snakes. The item is food (represented by a light purple pixel) which increases the length of the tail by one pixel. The powerup (representd by a bright green pixel) doubles the speed of the snake for five seconds for easy food collection or chasing the opponent. If many powerups are eaten, the snake will go faster, but only for five seconds.*
   5. Progression & Challenge  
      *The challenge is to grow the snake in order to win head-to-head collision while chasing the opponent’s tail to make it shorter. If the tail is too long, it has greater chance of being eaten by the opponent. If the tail is too short, there is a greater chance of losing head-to-head collision and losing the game.*
   6. Losing  
      *A player loses if it has the smaller tail when the two snakes collide head-to-head.*
5. Art style  
   *The game is created entirely from different colored pixels and no other graphics. The different colors are present to distinguish each player and each item.*
6. Technical description  
   *The game starts with each snake (just the head) moving in a pre-set speed and direction. During the gameplay, food spawns in random places every four seconds. Each food lengthens the snake’s tail by one pixel. At every six seconds of gameplay, a powerup will appear in the middle of the gameplay area. This item will double the pre-set speed of the snake for five seconds. If one snake’s head collides with another’s tail, the other snake has that tail pixel and any trailing tail pixels removed. If one snake’s head collides with another snake’s head, the game ends and the snake with the longer tail wins the game.*