

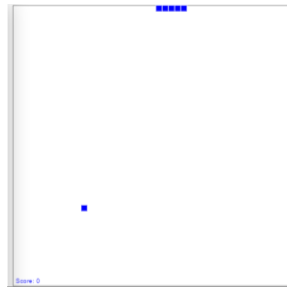
Final Project Declaration: Improved Snake HTML5 Game

Team M.A.N.Y.

Team members: Seongmann Kim, Aaron Burrell, Namgi Yoon, and Young Soo Choi.

- **Abstract:**

Our idea is to take an existing HTML5 “Snake” game and improve on it. The basic game is well known. The player controls a segmented sprite in the shape of a snake and changes the direction of the snake to go after the next body part.



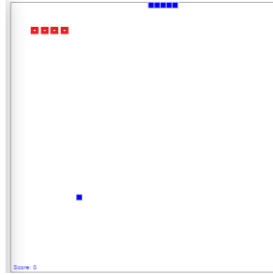
- **Our Idea:**

There are many areas we plan to improve. The speed in the original game is set, but the difficulty increases based only on the fact that the size of the snake increases as you progress. There is a basic scoring system that only keeps track of how many body parts you have collected.

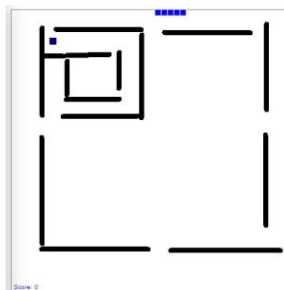
We plan to improve on the game by adding features like enemies, different levels with new borders or even mazes, an enemy controlled by AI, a health meter, and a database that will hold high scores and other interesting user stats like how many times a given player has played or any other data the player wants to provide, perhaps how much they slept the night before or how old they are etc.

- **Individual Goals:**

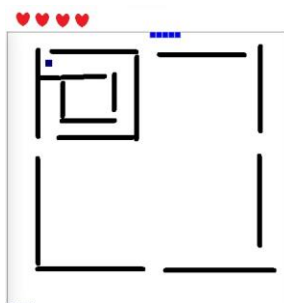
- **Namgi:** plans to work on building an enemy snake using AI. This enemy can do different things like attacking the player snake or trying to get the next body part first. The difficulty of the enemy can be changed based on the enemy speed or size, there are other things we can try like levels that we fight the enemy.



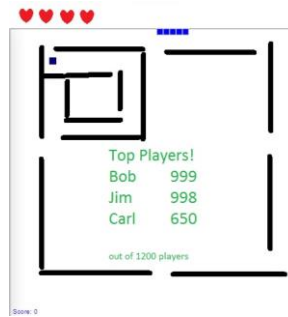
- **Aaron:** plans to work on upgrading the **level layout** by adding walls or mazes as obstacles in the path to getting the next body part. Other level attributes could be blind zones where the player cannot see the snake, or there could be levels where both the player and the enemy are the same color, or there could be fake body parts that kill the player.



- **Young** plans to work on improving the player **health and powerups**. Right now the player dies every time it hits a wall or their own tail. There can be different ways to improve the health. One might be each time the player hits a wall he loses a body part, or if an enemy runs into the player the player could lose a body part, or there could be a health meter at the top of the game board. Powerups may include speed boosters, player shrinking or growing, shields, or ghost (you can pass through walls). Any team member may work on powerups as stretch goals if they want to add more work. We may add other functionality as we test our game.



- **Mann** plans to work on improving the **scoring and adding Database functionality**. This may include gathering different player data such as name, age, gender, etc. At the end of play the data is added to the database and the player can view interesting stats such as players do best on 8 hours of sleep, or if they had to overcome being color blind or being hungover or sick.



- Source Code:

The source code for the basic snake game can be found here:

<http://thecodeplayer.com/walkthrough/html5-game-tutorial-make-a-snake-game-using-html5-canvas-jquery>