

Write Up

My solution to this was to start with easy, less complex, parts and work up from there. Making a canvas, setting up the basic HTML page, creating a single cell, getting it to move, and so on. I then created a, in my opinion, fairly artistic HTML page and then I went into more of the game mechanics. I handled movement with the interval and kept track of where the previous cell was before moving it so that I could add more to the snake. I had also created a second canvas the same size as the first but only including borders, and this is where I incorporated fruit into the game. After that, it was all collision detection between snake and fruit, snake and itself, and snake and canvas borders. Afterwards I got all my buttons, and pausing mechanics as well as a scoreboard put into the game. I set up the game with a snake longer in length to get the ball rolling on the game so one could experiment with colliding with themselves

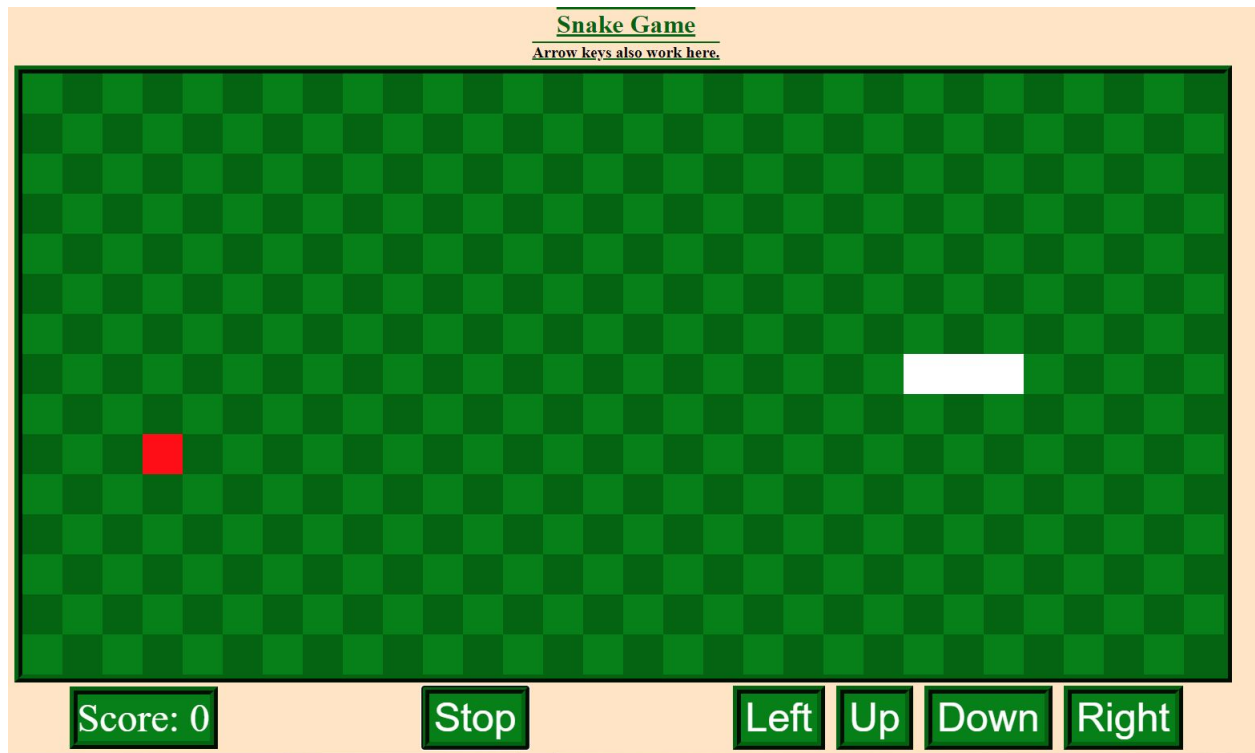
There is not much to say about task 2. That was very simple js code and logic. I opened the given example and went off of that, expanding in areas that needed to be expanded in and kept going like that until all 4 inputs and outputs were working as intended.

Screenshots:

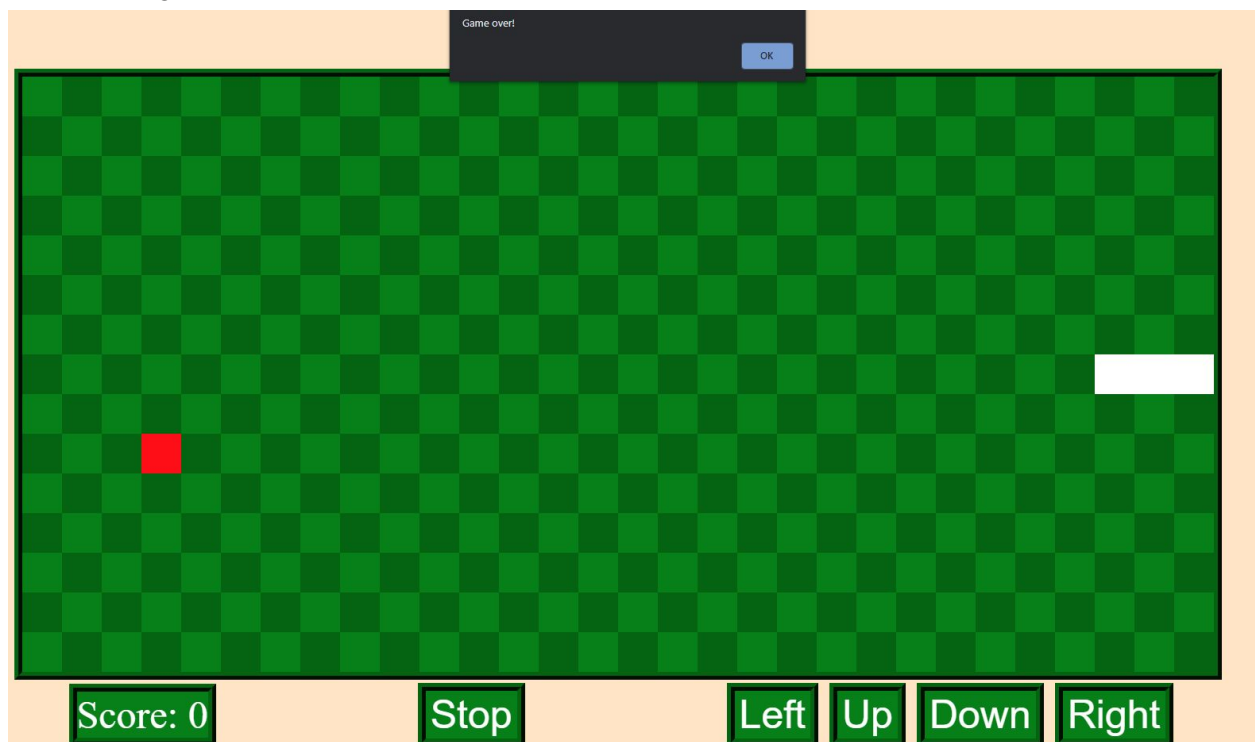
Snake Game Screenshots -
Idle Screen.



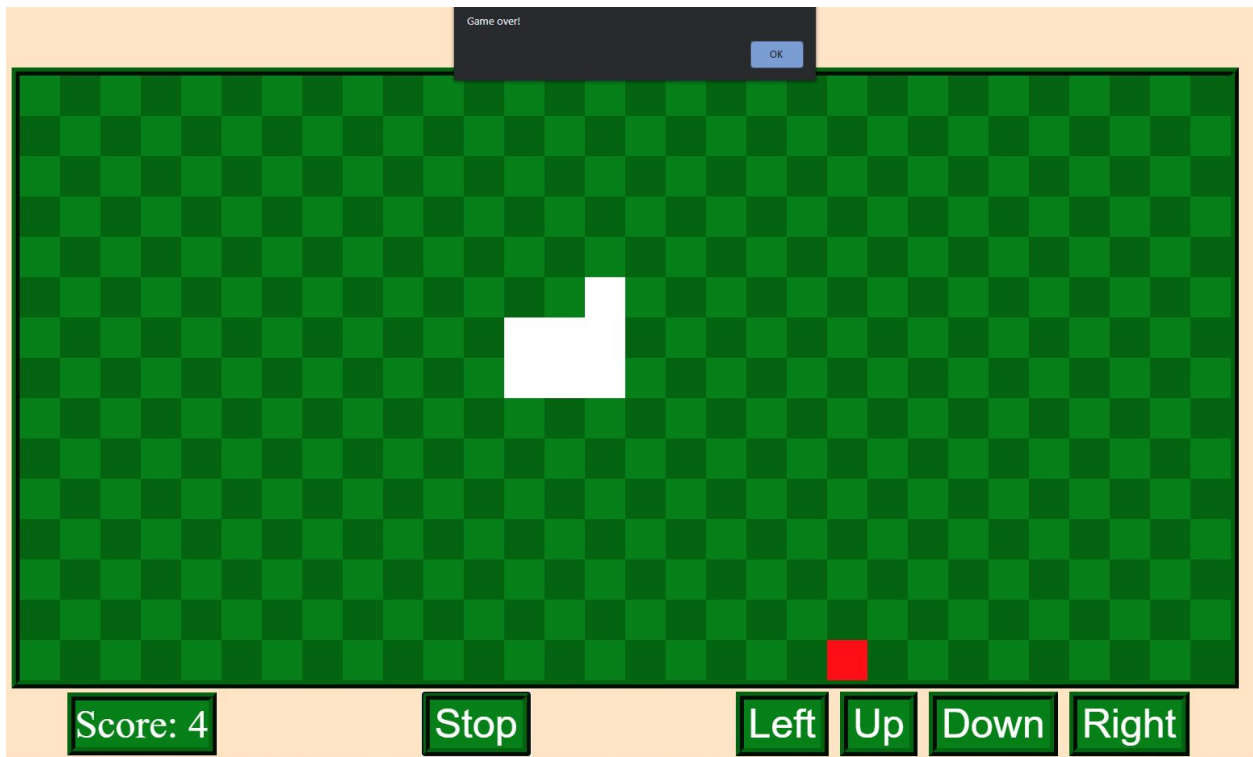
Beginning of snake game.



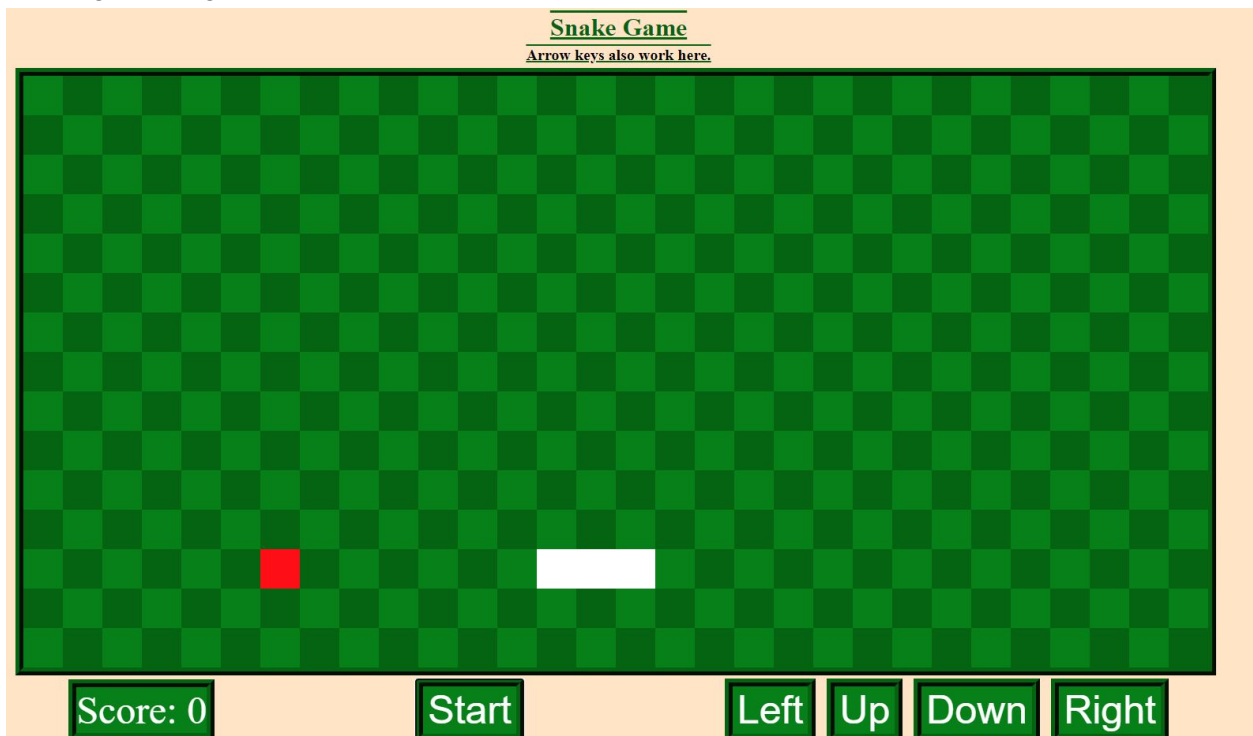
Snake hitting the border.



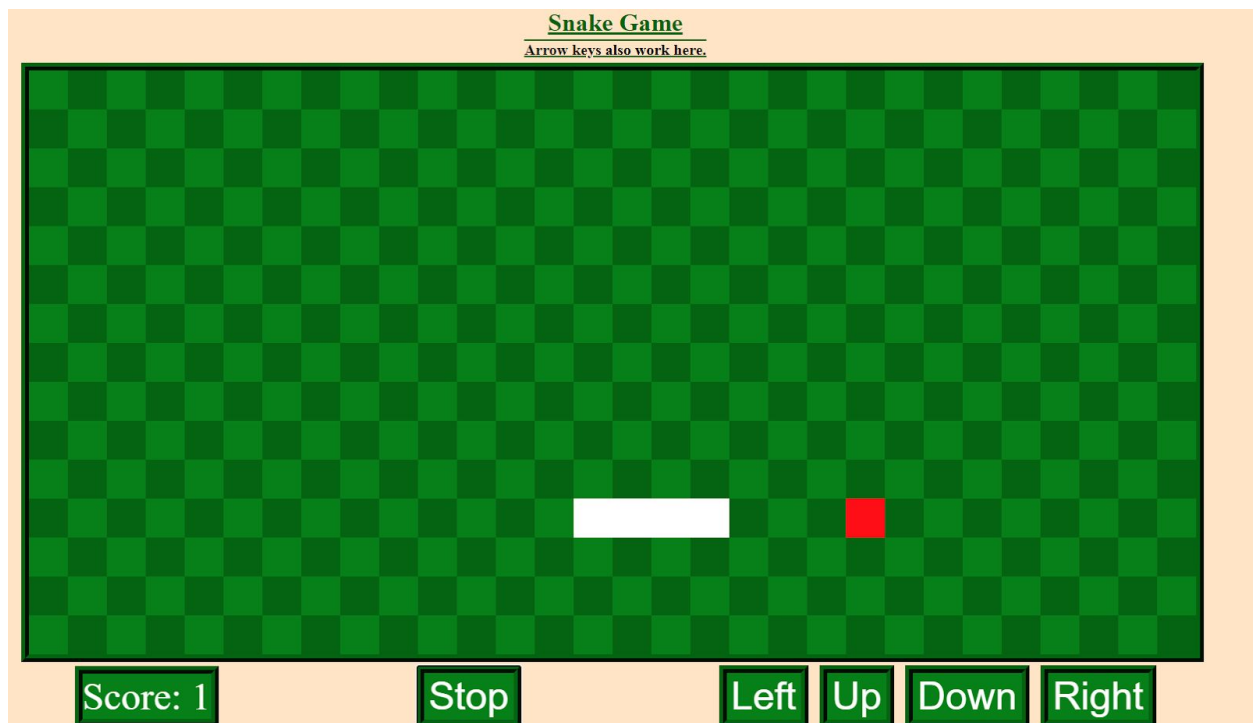
Snake colliding with itself.



Pausing snake game.



Unpausing snake game.



Task 2 Screenshots -

Node.js input/output.

```
1st Number: 5
2nd Number: 1234
3rd Number: 1234567
4th Number: 12321

Factorial of 5: 120
Sum of 1234: 10
Reverse of 1234567: 7654321
Is 12321 a palindrome: true
```

```
C:\HomeScreen\School\Com5_310\phc HW3>
```