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COM S 319  
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## HW3 Report

### Task 1:

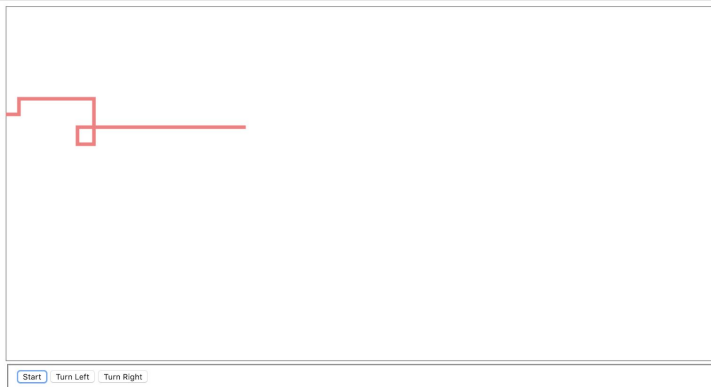
I started out with a variable named “snake” which is initialized as an array containing one pair of x and y coordinates. I created a pair of functions that together draw a square for each coordinate in the array and a function that adds a new coordinate to the beginning of the array. The coordinate being added is shifted according to the values in variables “dx” and “dy”. These functions are all inside a “setTimeout” function which is also inside a “main” function being called recursively.

I had two functions, one for turning left and one for turning right, where I used shorthand if-else statements to get things into one line. I had another two functions, one for starting and one for stopping, where I reset the attributes for “onClick” and “value” accordingly. In order to make the snake stop, I set a flag to 1 that forces the main function to exit. To start again I just set that flag back to 0 and call the main function again.

### Task 2:

First, I installed node into the “task2” folder using terminal, and installed the necessary module using “npm install”. Then, I created a function for each output required. The first three functions required a simple for loop to complete the operations. The last function I used the “reverseString” function to check for equality between the reversed and non-reversed strings.

## Screenshots



```
32 | for (var i = digits.length - 1; i >= 0; i--) {  
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 2: bash  
1st Number: 5  
2nd Number: 1234  
3rd Number: 1234567  
4th Number: 12321  
Factorial of the 1st number is = 120  
The sum of all the digits in the second number is = 10  
The reverse of the 3rd number is = 7654321  
Is the 4th number a Palindrome(True/False)? true  
James-MBP-3:Task2 JamesVolpe$
```