Progress Report 3 – Snake

Name: Brady Carlson
Reporting period: 12-October - 8-November
Total hours worked on project during reporting period: 19
Total hours worked on project: 78

What tasks did you have listed in your milestone to accomplish during this time period?

The tasks that I outlined to be completed during this reporting period are as follows:
- Implement snake movement (head and tail move correctly, body follows path)
- Implement snake growth (one unit for each piece of food eaten by head of snake)
- Implement snake speeds (slow, medium, fast)

What tasks have you accomplished during the time period?

In previous milestones I had implemented the growth, speed and movement of the snake. During this reporting period I completed the following:
- Implemented snake's head so it's always facing the direction it's moving
- Redesigned snake's tail
- Redesigned Fire border
- Implemented new border types for Halloween and Christmas
- Code refactoring, styling and fine tuned game play
- Made list of remaining tasks/ideas to complete this project
- Progress Report 3 documentation

What new knowledge or skill did you learn? (Describe briefly)

During this reporting period I struggled with the implementation of the snake tail and fire border. I tried different ways to solve these problems, but did not find one that worked well enough. I spent several hours working on these two problems before I had a moment of clarity and decided to solve these problems another way. For the snake tail, I redesigned it to be symmetrical and for the fire border I decided to abandon trying to draw a suitable design and instead just used an image. Once I used a picture for the fire border it was easy to copy that logic and draw other borders with pictures. That's when I added a pumpkin border for Halloween and a Santa border for Christmas. These borders were not a part of the initial project requirements, but were simple to implement and took little time to complete.

This taught me that sometimes it's better to abandon plans if there's a more efficient and productive way to do something. Initially I wanted to draw everything for this game with 2D graphics, and for the most part I have. But it was more productive (and frankly less stressful) to solve these problems a different way. In my mind, I've found a reasonable solution for now, but as the project gets closer to completion I will hopefully have time to revisit these issues and potentially find a solution.

What have you learned in classes that you have applied to the project during this time period?

Throughout my collegiate career I've learned the value of planning and working ahead. I planned this project so that a lot of the work was front-loaded at the beginning of the semester. That way, should I run into any major problems, I would have extra time allotted at the end of the semester. But this project has gone so well that I've been able to stay ahead of my plans. This allowed me the opportunity to postpone work on the project for an entire week while I focused on pending coursework from my other classes. If I hadn't planned and worked ahead I would not have been able to do this.

What difficulty occurred or what mistakes did you make? What did you do to correct it?

The initial design of the snake's tail was like the head, where depending on which way it's moving it would be displayed correctly. Implementing the head was simple, I just had to check which direction the snake is moving and then draw the head facing that way. The tail, however, was not so easy. I tried a number of different solutions, but none were bug proof. After a few hours and attempts I decided to redesign the snake's tail so that it is symmetrical and looks correct regardless of the direction it's moving.

What skill(s) could you use help on in performing your project better?

Currently the majority of the project's requirements have been satisfied. Now I'm starting to plan how the game will work and display on a webpage, but at this time I do not need any additional help on my project.

What interesting or challenging problem did you encounter and what steps did you take to solve it?

I did not encounter any major problems during this reporting period. As previously stated, I had issues associated with the snake tail and fire border, but was able to solve these problems in different ways. My solutions were not ideal, but were productive and added value to the project.

How would you rate your own performance this milestone?

I think my performance this milestone has been pretty good. I completed the tasks that I set out to and I was able to stay ahead of my requirements and even add some additional borders. I wouldn't say I'm happy that I had to abandon my initial snake tail and fire border designs, but I don't want to be too hard on myself. It's a delicate balance between attempting to fix a problem and wasting time trying to fix a problem. I have the tendency to get fixated on a problem and work on its solution for hours on end. I recognized this and decided to find a suitable solution for now and if there's time remaining I can revisit and work on it after everything else has been completed.
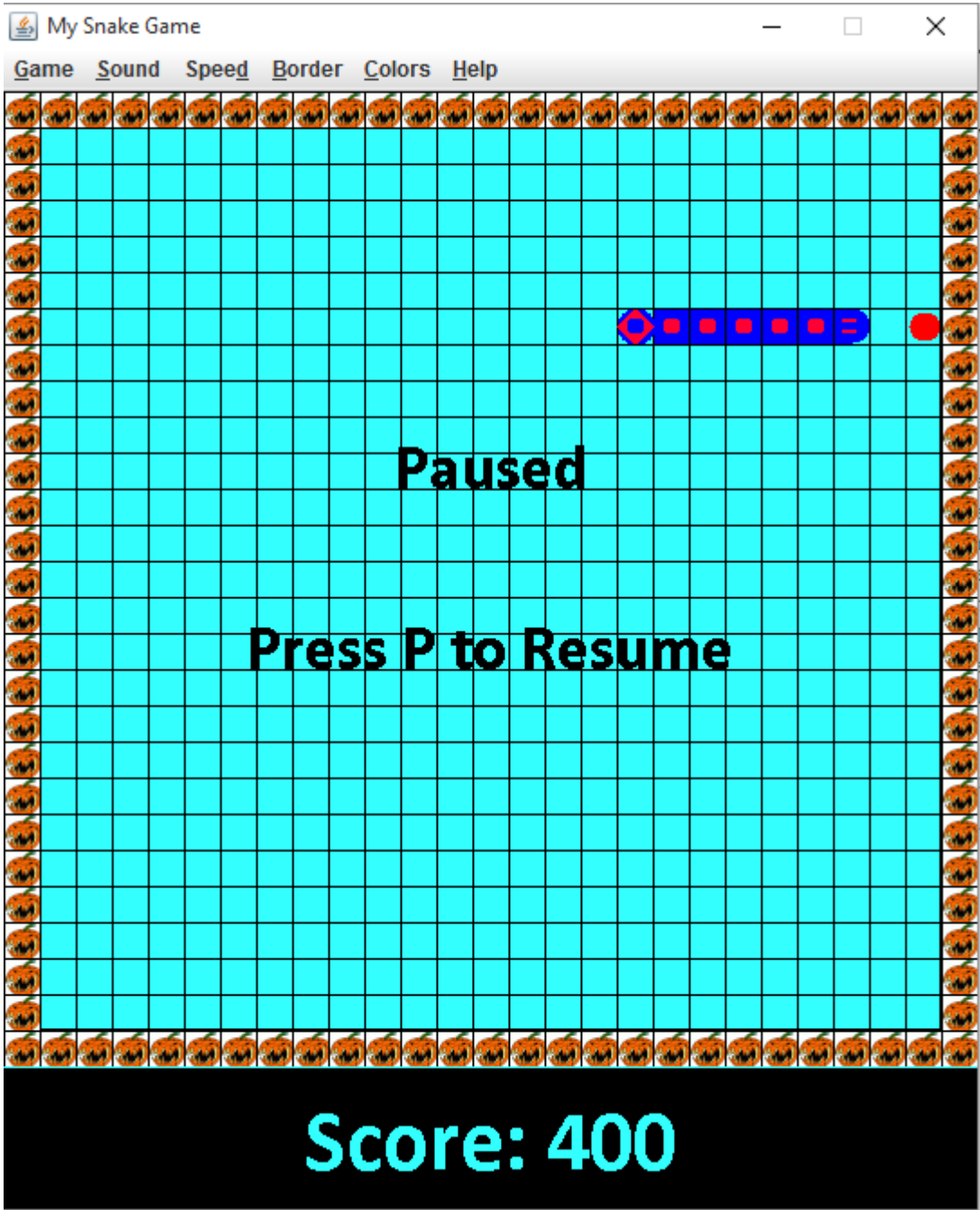
Additional comments

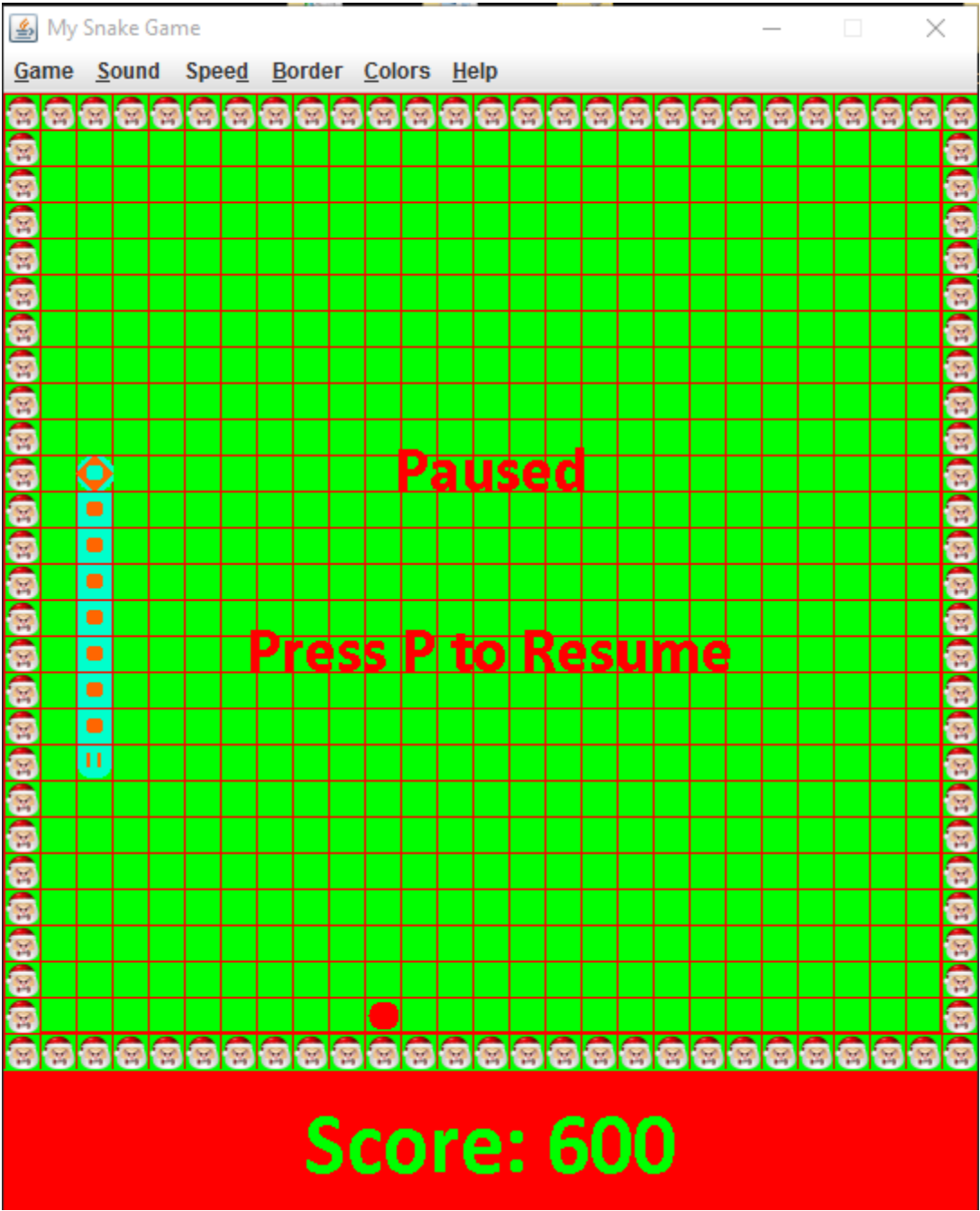Below are some screen shots of what was completed during this period.

Fire Border (snake moving up)
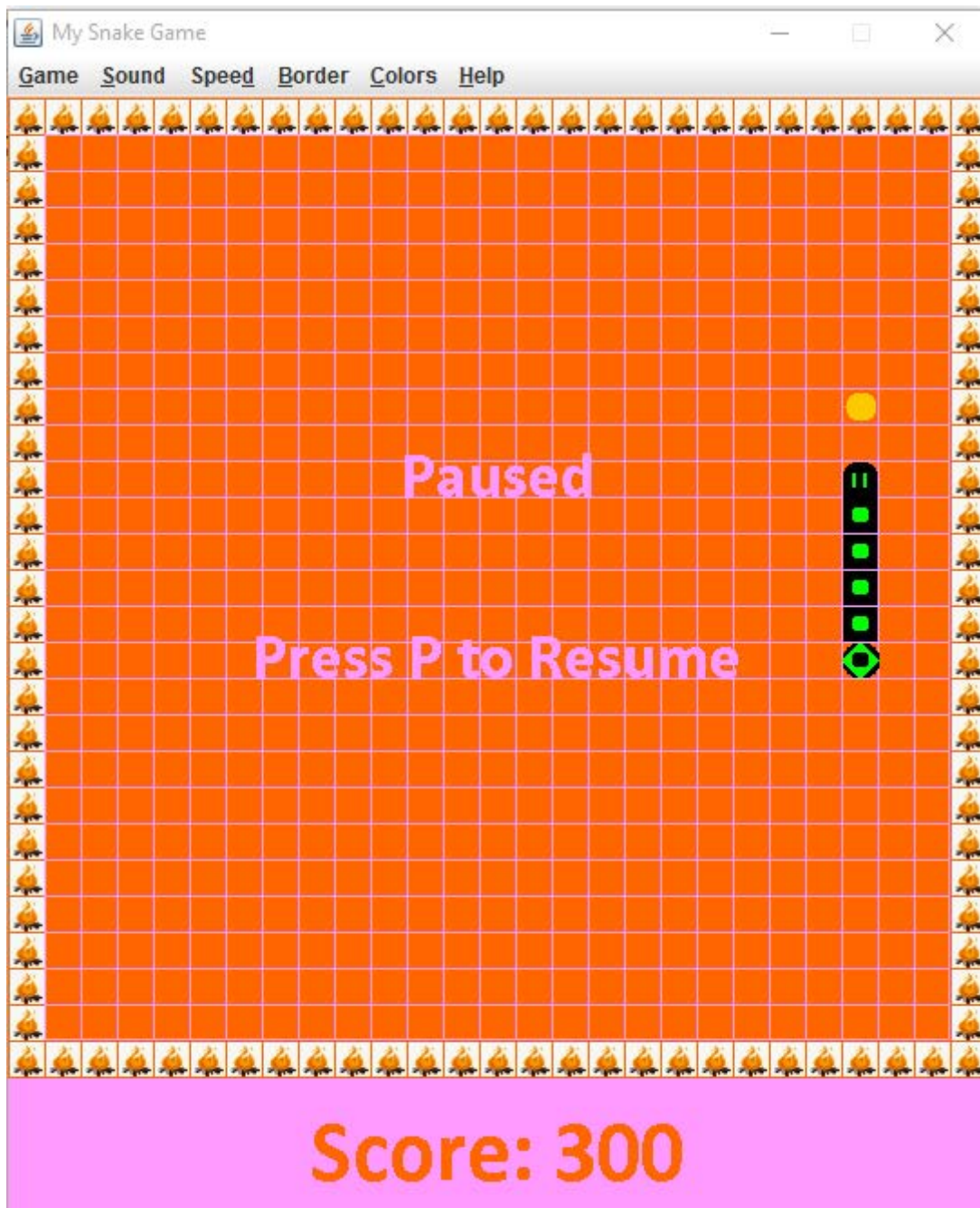
Halloween Border (snake moving right)

Christmas Border (snake moving down)

Snake moving left