Snake Game Final Project

Design Document

By Corin St. Ours for CSC221 Final Project

[Introduction 2](#_Toc192066654)

[Project Functionality 2](#_Toc192066655)

[Design Process 2](#_Toc192066656)

[Project Development 2](#_Toc192066657)

[Pseudocode 2](#_Toc192066658)

[Flowchart 2](#_Toc192066659)

[UML Diagram 2](#_Toc192066660)

[Requirements 2](#_Toc192066661)

## Introduction

### Project Functionality

There will be 4 basic directions of movement, up, down, left, right. It will be projected onto the screen as a separate window and the player can choose when to start playing by clicking a start button. The objective will be to collect “fruit” in the shape of red squares/circles. There will be a scoreboard tracking how many fruit you have collected at a 1:1 rate. Each time the snake eats a fruit the snake will grow by 1 square and another fruit will spawn randomly. The game ends when the snake runs into itself or into a wall, and the start game screen will appear again.

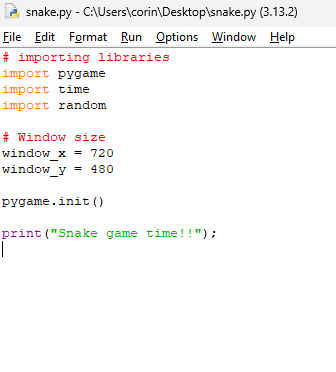
### Design Process

Here is where you will talk about how you created your final project. This should include the reasoning behind the design decisions previously discussed (they `why` of your designs). Additionally, include any hiccups/issues, parts that went well, and parts you enjoyed in making your final project.

After dealing with the frustrations of getting pygame to work. I started with generating a screen, then the 4blocks of the snake. After that I added some basic movements, I want there to be 4 directions of movement so that user input actually matters. This part was relatively straight forward for me and was something I’ve done previously. I worked on movement next cause that seemed like the right next step and then I got to generating the “fruit” which I made white cause that was the only color I could remember. Two big problems happened with the fruit, one is I had to adjust the random spawning equation to not allow it to spawn outside the screen and another issue is sometimes the fruit will spawn in the snake but I decided that problem didn’t need as much addressing. Then I added a some score variables and setup a display box at the top of the screen as well as a you lose message with your score.

## Project Development

### Pseudocode



### Flowchart

This is for your flowchart***.*** Please provide the design you based your algorithm on in the form of a flowchart as discussed in the course.

### UML Diagram

N/A

### Requirements

This is for keeping track of the requirements you fulfilled during the final project***.*** Please discuss each of the objectives/requirements listed in the final project assignment and how your final project meets/exceeds them.

Met 10x10 tile space

Met snake movement

Met snake growth

Met food generation (aside from sometimes generating in snake)

Met Collision detection

Met game over/score/death

Did not meet restart goal