Final Project

Design Document

By Jordan Vance for CSC221 Final Project

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## Introduction

### Project Functionality

The game will begin as soon as the code is running. It will be a standard, basic snake game experience where the player will score points by collecting food pellets and avoid defeat by running into their own segments or colliding with the walls. A score counter will be on display to keep track of your progress, and upon the game ending the player will be prompted to either restart or quit out.

### Design Process

The design process started with assessing what needs I even had for the game. I was unfamiliar with pygame, and barely familiar with Python, so I had to comb the internet for tutorials and completed projects to have an idea of what I should even be working towards. Through repeated trial and effort, along with plugging in code that was uncertain to work, I ended up with a functional snake game. The process of scouring the web was the most fun part, but at the same time was the most stressful. It was very interesting to see hundreds of solutions for the same problem, however being barely a novice at coding

## Project Development

### Pseudocode

### Flowchart

I did not make a flowchart for this project

### UML Diagram

I did not implement this

### 

### Requirements

1. Board Size / Play Area:
   1. The game has beyond the minimum requirement for the board size.
2. Snake Movement:
   1. The snake moves continuously when given a direction, and it will move in said direction until hitting itself or a wall.
   2. The movement is controlled by the arrow keys and WASD
3. Snake Growth:
   1. The snake grows every time it eats. This fulfills the basic gameplay premise of the snake game
4. Food Generation:
   1. Food appears wherever the snake is not.;
5. Collision Detection
   1. The game ends when the snake collides with anything that’s not food.
6. Game Over and Score
   1. The game displays a score counter in the top right of the screen, as well as a game over screen that prompts the player to press R to restart, or Q to quit out of the game.