Design Overview for Snake Game

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Summary of Program

The program is a rendition of the well-known snake game. Users would first be greeted by a start screen which allows them to change audio values, key-binds and some game values in order to make the game more or less difficult.

It will feature a somewhat three-dimensional GUI in order to get the user more interacted with the game.

Required Data Types

Describe each of the records and enumerations you will create using the following table (one per record).

Table 1: <<record name>> details

Field Name	Type	Notes
Player	String	Player Name
Score	Integer	Player Score
High Score	Integer	Highest Score Achieved
Music Volume	Integer	Music Level
Difficulty	Integer	Game Difficulty

Table 2: <<enumeration name>> details

Value	Notes
Up	Direction of Movement
Left	Direction of Movement
Right	Direction of Movement
Down	Direction of Movement

Overview of Program Structure

def initialize
- This function is the beginning in order to start up the gosu GUI

def add_segment
- This function is used in order to setup the movement for the snake. This also prevents the snake from double-backing. This means that the player cannot move the snake into itself.

def update

- This function grabs the users input commands and translate them into a movement. The function is also used to update the players score when the eat an apple. The function is also used for bounds for the snake meaning that when the snake hits the bounds of the game it will die and show a game over screen.

def draw

- This function draws the snake position, apple position, and players current score during the game. The function also draws the Game over screen when a player has lost the game.

def hit_self?

- This function is used for the death of the snake when a player hits the body of the snake with its own head.

These functions will run dependent from the users inputs.