The Snake Game Project Proposal

CSEE4840 Embedded System Design - Spring 2024

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Overview

The core of this project aims to remake the classic Snake game, and design it such that it can operate on the FPGA board.

Design

The game starts with a small snake navigating through an environment full of food items. As the snake consumes these food items, it gradually increases in length. The game ends when the snake collides with an obstacle. Our implementation plan includes seamless integration, rigorous testing, and gathering user feedback to ensure an optimal player experience.

Reference picture:
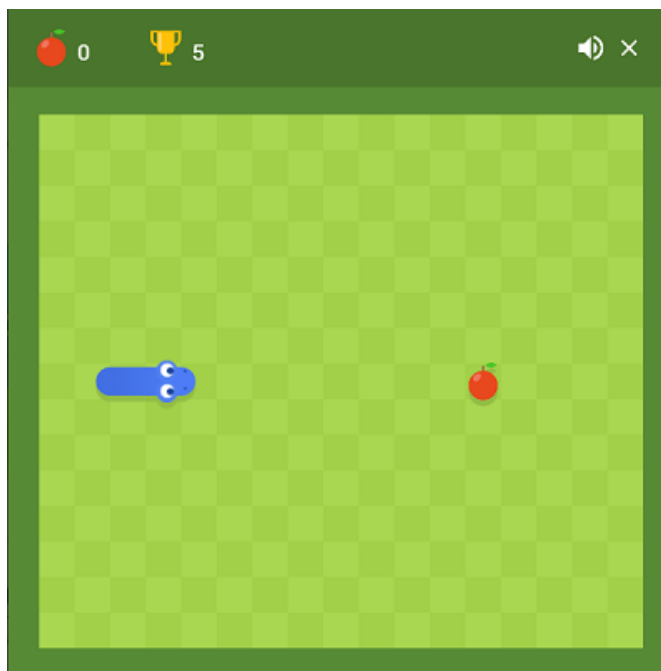
Features:

1) Keyboard for User Input

2) VGA Display

3) Sound effect through speakers

4) SD card for background music

Milestone1:

- Understanding the logic and writing the RTL.

Milestone2:

- Configure the keyboard for user input.

Milestone3:

- Testing the RTL and adding sound effects.

Milestone4:

- Debugging and final implementation.