Goals

Final project: Maze

- To implement key ideas and skills taught in CS5001-5003
- To practice new python APIs
- To improve skills in writing codes in a professional fashion

Final Project: Maze

Project Highlights

In this project, you will find:

- A maze game that automatically finds a way to the exit
- Initiated class structures that organize all functions and the readability of codes
- Imported new libraries to the program, which implemented the animation and visual effects
- Defensive coding to handle the exceptions

Tools and Techniques from 5001

Nested loops

Used in the multiple functions: grid, draw, on_loop, on_execute

1

Data Structures

Data structures like nested lists, strings, tuples , and sets are included

2

Recursion

Used for exploring every step in the maze, to determine if the way is a dead end

3

4

Pygame

Imported Pygame to implement visual effects and the animation

5

Nested if-else + multiway conditionals + logical operators + error handling + boolean expressions + classes …

Future Extensions

Final Project: Maze

User interactive

- Players can drag the blocks to prevent the bee from exiting
- Add a function to specify each step before moving
- Press keyboard to navigate through the maze

Code

Classify the classes more efficiently, so that the codes make more sense while reusing

THANK YOU