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CSC 4301 01

Spring 2022

Report

The concept of the Ghost Buster game is to click on one of the cells from the 8x20 grid and act accordingly to what the color of the cell is. If it is green, then the distance between you and the ghost is at least 5 cells. The yellow color appears when you are far by 3 or 4 cells. And the orange clor appears when you are far from it by 1 or 2 cells. The last color, which is red, appears when you click on the cell with the ghost. The game has different probabilities that update each time you click on a cell. That is how the player can find the cell with ghost, and win.

The main scripts we used to develop the game are:

Game.cs:

This script contains all the main function of the game. It is responsible for randomly placing the ghost, showing the colors, and calculating the distance between the ghost and where the player clicked.

* displayed\_color(): This function is responsible for placing the different colors according to the placement of the ghost.
* JointTableProbability(): This function is responsible for placing the right color in the right cells. It calculates the probability using the distance and the colors.
* CheckInputGrid(): This function handles all the probabilities of the game using Bayesian inference.

Tile.cs:

This script hold all the variables that we used for the grid.

WinLose.cs:

This script handles the win or the loss situations.

ProbabilityText.cs:

This script is responsible for displaying the probability and updating them after each click of the player.

In conclusion, we learned a lot of things doing this project, especially when it comes to probabilities and handling colors in order to win a game. The player clicks on the cells of his choice, and based on the position of the ghost, the probabilities keep updating. If the player follows the colors and the higher probabilities, he can easily beat the game, and if he finds a probability of 1, the player can catch the ghost and win the game.

Here is the link of the working demo: <https://youtu.be/4TEkYgsVUXU>

Here are some screenshots of the game:





