

ENGR 102 Game Planning Document

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Synopsis of document and deliverables

The purpose of this document is to outline the top-down approach to programming 3 selectable games of our choosing. The ultimate goal of the top-down approach is to allow us as programmers to save time and computational resources in our development of this set of games. We hope it will help us ensure we are taking the path of least resistance while also balancing the demands of the assignment as outlined in the rubric.

What Three Games and Why?

Three Games

We have brainstormed Tic-Tac-Toe, a chicken crossing the road game, and a console-based wordle.

Why

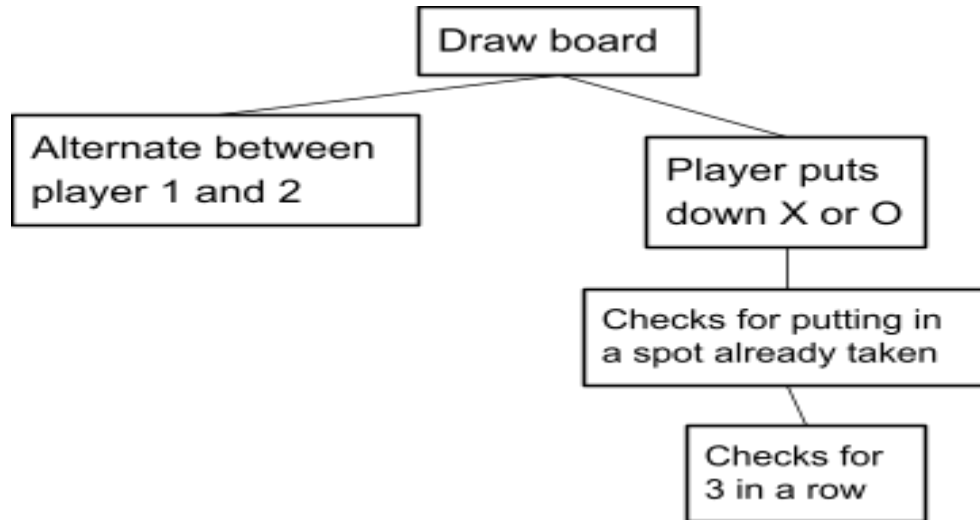
We chose Tic-Tac-Toe as our first game because the rules of the game are simple. Meaning from a coding standpoint the main challenge would be the turtle graphics display. It allows for user pass and play and will create an opportunity for clear and concise communication via the command prompt as to whose turn it is. That said it would also allow us to develop the surrounding infrastructure for all of the games under a lower stake precedent with a simpler game.

We chose the chicken crossing the road as a means to develop a system that can handle “collisions” such as when the chicken hits a car or reaches the other side of the road (which would be interpreted as a collision with the finish line). This would further develop our turtle skills which we initially used in the Tic-Tac-Toe game.

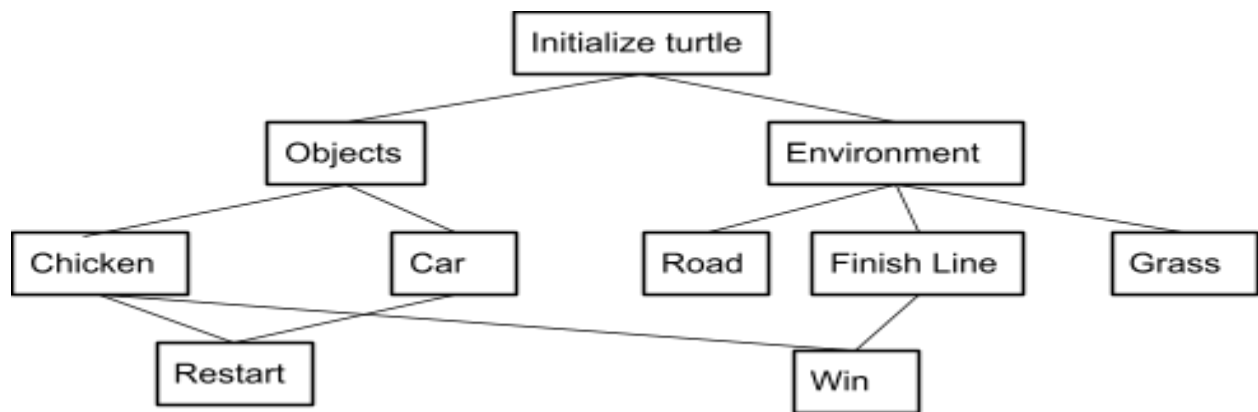
The console-based wordle game will help us better understand the functionality of working with the console. Using the Colorama package for colors and the location modifiers with f-strings will allow us to control how the output looks to try to make it as close to the real thing as possible. We will also use an API request in order to generate the list of valid five-letter words which is another thing that we are all unfamiliar with. This gives us an opportunity to learn not only a new application of a concept we already know but also an entirely new concept itself.

Top-Down Design

Game 1: Tic-Tac-Toe



Game 2: Chicken Crossing the Road



Game 3: Wordle

