Homework Assignment
Unity Integration of Roll-a-Ball and Karting Game

This homework is the continuation of Unity 3D interactive graphics.
The objectives of this homework is to set a stage to integrate Roll-a-Ball game with Karting game.
1. The first part of this homework is to use the techniques that you have learn from the roll-a-ball game environment to create a footprint of a driving path as shown in Figure 1.

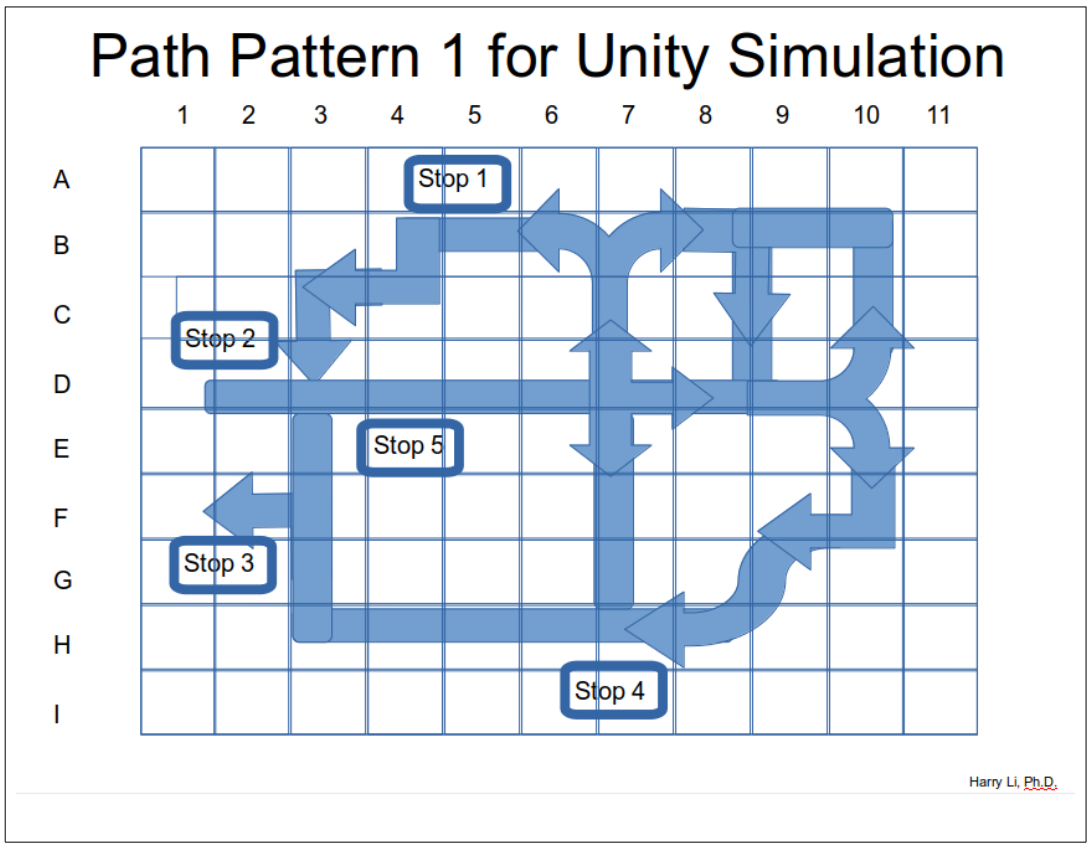

Figure 1. Driving path to be implemented.

2. Then migrate the cart (motor bike and the rider) from the Karting game to this environment, so you can use keyboard control to drive through this layout pattern. Shown in Figure 2 is the screen capture of the karting game.

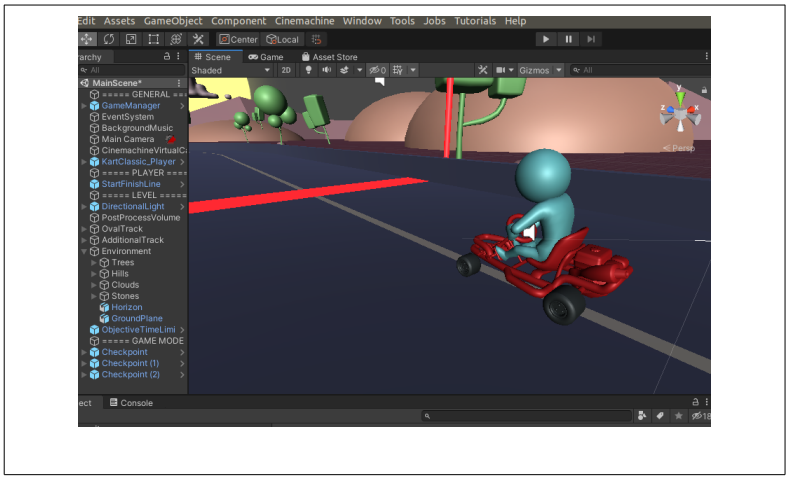

Figure 2. Screen capture of the karting game.

3. Implement tree algorithm to create a patch of forest using openGL as illustrated below.

Submission requirements:
(1) source code;
(2) compiled binary;
(3) 5 second video clips;
(4) put all in a zip file with the following naming convention:
FirstName-LastName-nameOfProject-4digitsID-YY-MM-DD.zip
for example:
Harry-Li-Forest-1116-2021-9-30.zip.

Appendix A. Go over this tutorial on Unity Karting Game
https://learn.unity.com/tutorial/karting-mod-smart-karts-training-guide

(END)

Figure 2. Select “roll a ball from” the Learn window under project.

4. Go through this training and build your interactive graphics to learn:

(1) Use Unity Editor and its built-in capabilities to set up a simple graphics environment;

(2) Write your own custom scripts to create the game functionality, as simple as “hello, the world”;

(3) Create a basic user interface to improve the game experience, keep it very simple please, do not over design at this point. All you need is to get yourself familiar with UI;

(4) Build your interactive graphics, e.g., a game, so others can play it.

5. Submit your design on Canvas and in email, and prepare show-and-tell in class.

(END)