

Holiday Golf

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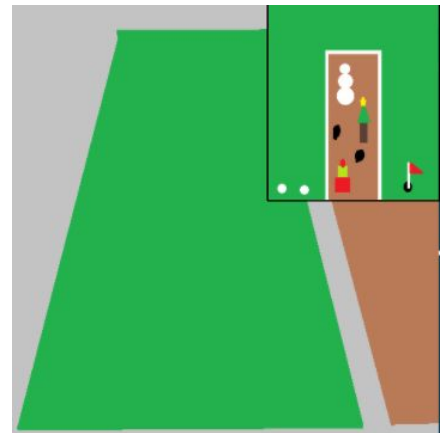
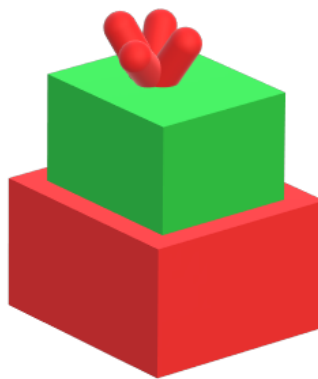
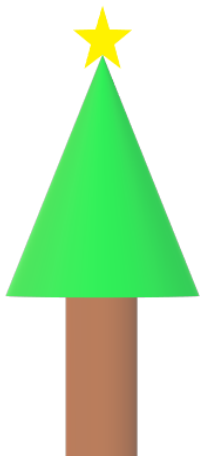
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CSS 451/551

Purpose

Our final project will be a mini golf game that will be played with 2 players. The players will alternate turns and the first player to score the ball in the hole first will win. The course will be Christmas themed which will include obstacles such as christmas trees, presents and snowmen. The obstacles will be placed on a table for the players to manipulate onto the course as they see fit.

Sketches



Christmas Tree Obstacle (Scene Hierarchy: Trunk -> Leaves -> Star)

Snowman (Scene Hierarchy: Base -> Body -> Head)

Stacked Presents (Scene Hierarchy: Bottom Present -> Top Present -> Ribbon)

Game View with second viewport (minimap) in the top right corner

Tech Requirements

1. Working with Graphical Objects
 - a. SceneNode Hierarchy - Stacked Presents (Bottom Present, Top Present, Ribbon), Snowman (Base, Body, Head), Christmas Tree (Trunk, Leaves, Star)
 - b. SceneNode Manipulation - Player will be able to directly manipulate game obstacles through transformation, rotation, and scaling
 - c. SceneNodes and Primitives - Project will use SceneNode/NodePrimitive classes, along with placing Christmas Lights (Unity GameObject Capsules) around the golf course
2. Object Interaction - Two pieces of Coal that turn into presents when colliding with the Ribbon from the Stacked Presents
3. Illumination and texture - The Stacked Presents Hierarchy will contain a shader that acts as a Christmas wrapping
4. Different Views and Camera Manipulation - Players can choose from a dropdown list of static cameras that will aid the player in better placing the obstacles onto the course. Players can also choose a cinematic camera that they can manipulate around the course. A Minimap will also be present as a second viewport.

Tasks to Complete

- Create all game objects that will be included in the scene.
- Apply Scene Node Script to the obstacles.
- Add textures to the gameobjects.
- Apply XFormControl to the obstacles.
- Camera
 - A few static cameras around the course that can be chosen through a dropdown menu.
 - Overview of course always visible in the corner of the players' screen.
 - Main camera manipulation.
- Implement object interaction (When the ribbon touches a piece of coal, the coal transforms into a present).
- Implement ball behavior including direction and speed.
- Implement Win/Lose.
- Implement player order.
- Implement diffuse illumination.