

## **Assignment 4: Final Project**

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For final project, I have worked on a program that mimics 'Rolly Vortex' in 2D. The main structure of the game is that there is a ball at lower side of the screen and bricks coming down from the upper side. Then the ball should dodge the brick or the game will be ended. At every tenth brick that ball has passed, the pace of game is increased so the difficulty increases.

To implement this game, first, the scene is rendered by using rasterization. Then texture has been mapped to each triangle for based on each UV coordinate information. The ball itself is also formed with two triangles but it looks like a ball thanks to the texture. Checking collision is implemented with barycentric rasterization technique.

To control the game, the game is started with pressing space key when it is started. The ball position can be controlled by left arrow and right arrow, and the game can be paused by pressing 3. When the ball collides with the brick, the game is over, and it can be restarted by pressing space (pressing space during the game has no effect).