

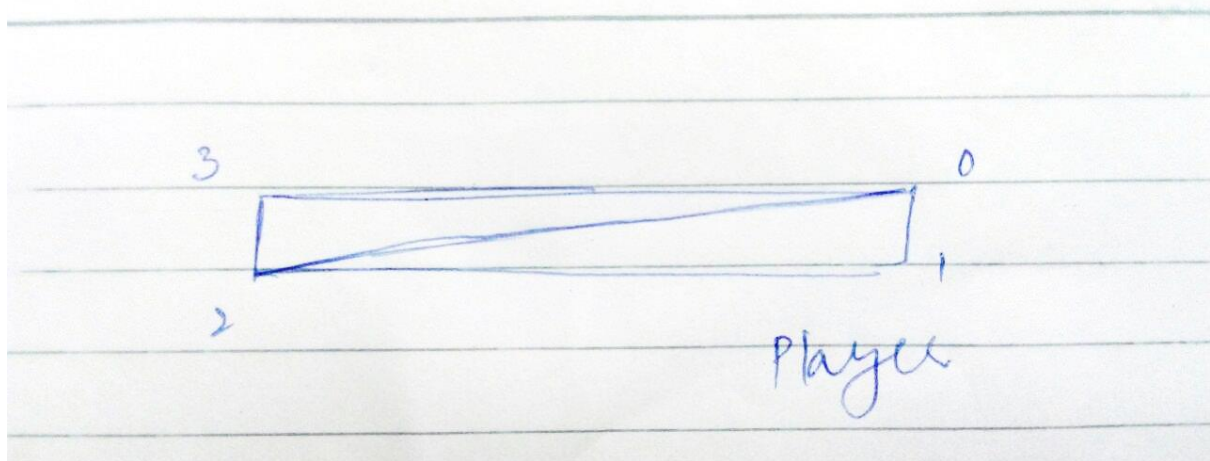
Computer Graphics

Assignment 1 - Pong Game - Report

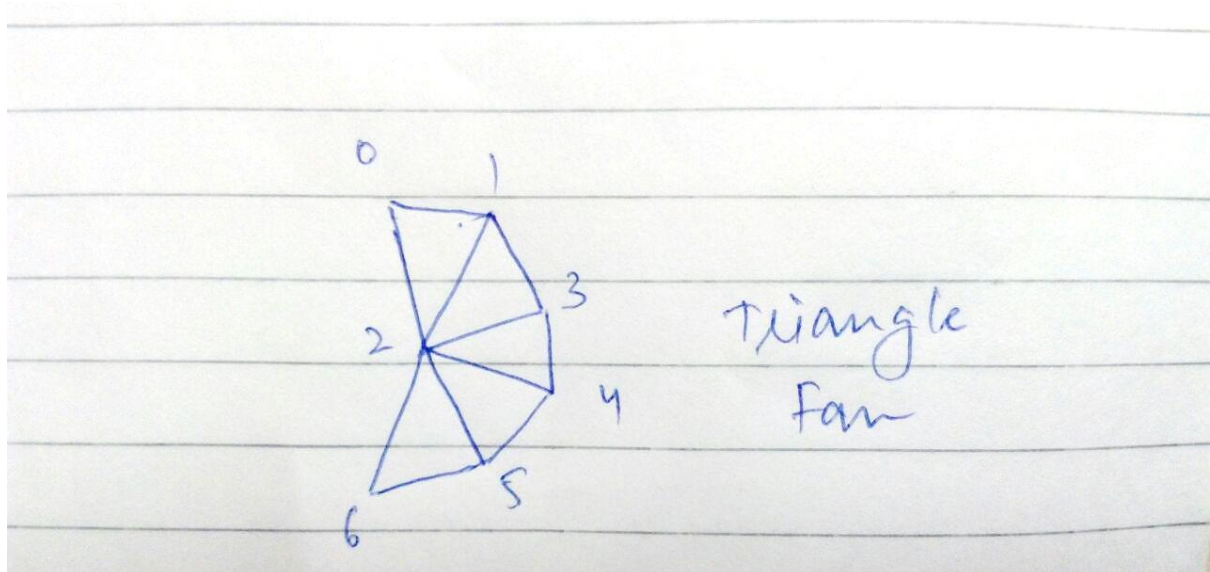
Pong is a two-dimensional sports game in which the player is a paddle that can move horizontally across the screen and hits a ball that goes back and forth across the screen.

About the shapes:

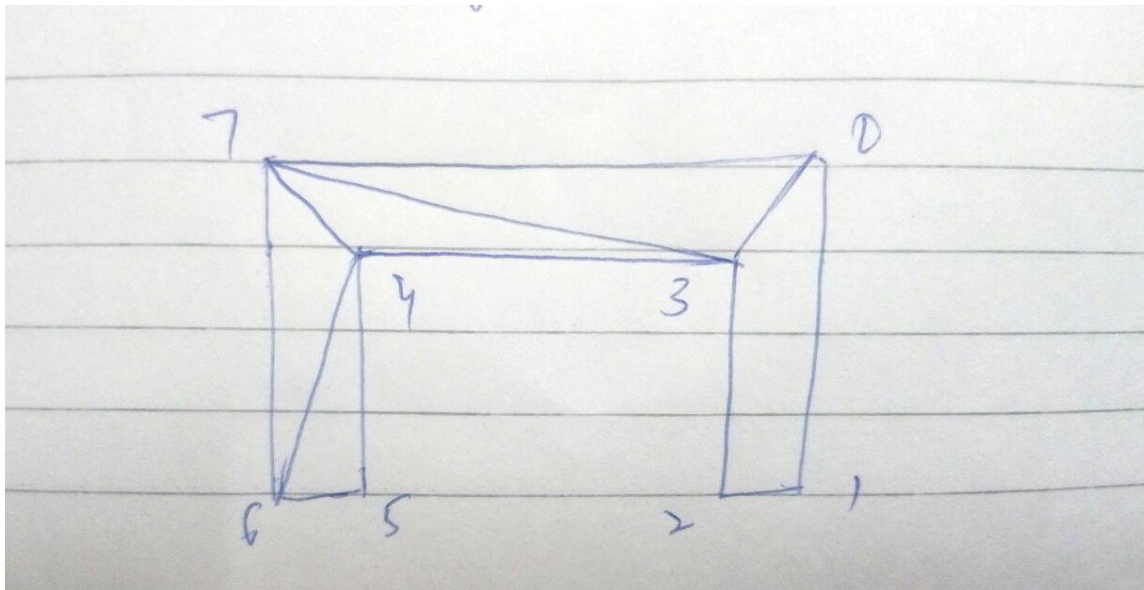
The paddle/player is a rectangle that is drawn using a combination of two triangles. The two triangles share two vertices.



The ball is a triangle fan made of 15 triangles. Each triangle has one common vertex, which forms the centre of the ball.



The walls are also made of triangles – 6 in our case. Following fig. shows how the triangles form the three walls as desired:



It uses only 8 vertices to form 3 walls.

Pause functionality:

The game can be paused and resumed by pressing the Space Bar.

Extra Classes:

No extra classes have been used apart from the ones already provided.

Shaders:

The provided shaders have been modified a bit in order to change the colour of the ball, the player and the walls. Rest is used as such.

Data Structures and Algorithms:

As such, no explicit data structure has been used in the assignment. However, several algorithms have been used like the algorithm that draws a circle using 15 triangles, the algorithm that checks that the ball has hit the paddle or not and whether to update the score or reset it, etc.