COMP 371: Introduction to Computer Graphics

Team Information

Team Name: The Gandalfs

#	Name	Student ID
1	Juan-Carlos Sreng-Flores	40101813
2	Yash Patel	40175454
3	Massimo Mangiola	40235157
4	Daniel Lam	40248073
5	Joud Babik	40031039
6	Omar Alshanyour	40209637

The project consists of a simulation of a simplified tennis game, with its rules similar to the game of pong and a couple of features coming from tennis.

The project consists of:

- The tennis court: floor, net, skybox
- Two racket models: arms and rackets
- Tennis ball model: a sphere model
- Scoreboard model: dynamic score and time
- Scenery and audience and sound interactions: textures and audio
- Physics engine: simulation of model collisions

The game starts with the ball on one side. The timer of the scoreboard starts upon launch and the rackets are free to move to hit the ball. The rackets and the court net can interact with the ball to change its course of motion, so can the court walls. Points will be scored and tracked on the scoreboard following the “pong” game logic after the collision of the ball with the back and front walls of the court.

The racket control:

First racket:

- Arrow keys to move (shift to move quickly)
- L key to hit the ball
- H to reset position

Second racket:

- ASWD keys to move (left, front, back, right) (shift to move quickly)
- E key to hit the ball
- H to reset position

The tennis ball controls:

The starting position is at one side with small initial velocity and a negative y-axis acceleration, and its direction changes only as a result of collision with preset planes (the racket meshes, the tennis court net, the walls of the court and floors). The tennis ball will lose velocity with every collision made with a static plane

The scoreboard controls:

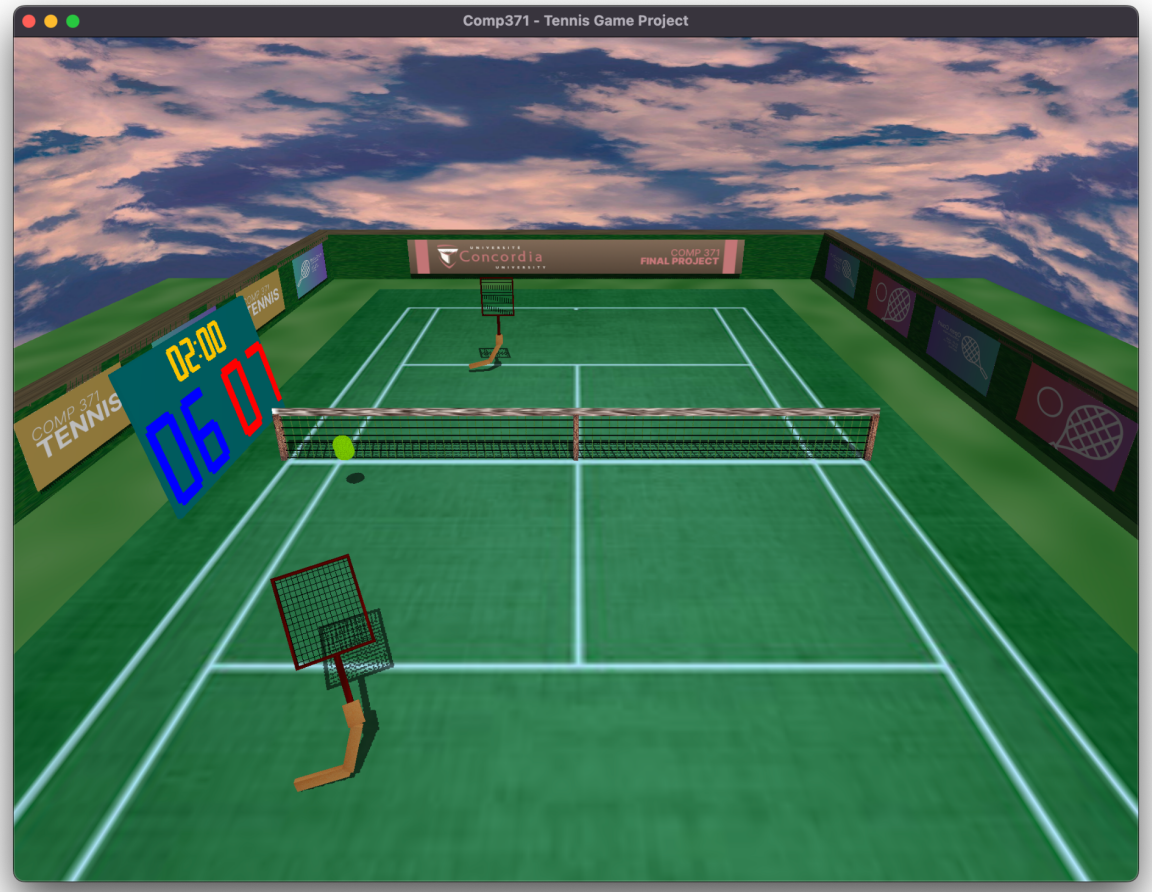
- Displays the time since the start of the match
- Keep track of the points scored interactively and automatically when the sphere hits the back walls.

Audio:

- Hit sounds
- Score sounds
- Audience cheers

Scoreboard: Yash Patel
Court and rackets: Joud Babik
Scenery: Massimo Mangiola
Physics: Daniel Lam & Juan-Carlos Sreng-Flores
Game Logic: Daniel Lam & Juan-Carlos Sreng-Flores
Audio: Omar Alshanyour

Demo Picture of Project:



Link for the video demo:
Final Project video.mov