**CP 411 Proposal**

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**Pool Tabletop Game**

**Description of the project:**

Pool is a timeless game enjoyed among friends. To play pool, one must use a specially designed table called a “pool table”. On this table there are multiple spheres which are coloured and numbered. These spheres are called billiards.

The objective of the game is to sink all your billiards. This has to be done without sinking the 8 ball (the black ball), or else you will lose the game.

**Design requirements:**

- We need a textured rectangular pool table.

- 16 circles, one white ball and fifteen coloured balls.

- We need these balls to be able to

-roll on the table.

-collide with each other and move according to the collision detection.

-be launched by the player’s pool cue.

-disappear when sinked.

- Opengl world to render our game.

- A camera that views the whole pool table within the world.

- Dark pockets around the pool table to sink the balls into.

**Implementation Plan:**

1. To complete the initiation of the pool table, and balls appearing on the pool table.
2. To complete the lighting and texturing of the surrounding scene, including the camera and world
3. Set up a Pool cue that can hit the white ball from various angles.
4. Implement collision handling and ball rolling physics
5. Implement ball sinking.
6. Detect when a ball goes into a corner pocket and handle the game logic accordingly.

**Schedule:**

-Proposal/ design plan by November 23rd.

-Documentation throughout the stages of the project.

-Objects created: November 27th

-Collision detection implemented: November 28th

-Light and camera orientations: November 30th

-Testing, fixing and improvements: December 1-4th

-Presentation preparation: December 2nd-5th

-Finished product: December 5th