

Program 2

Due 9am, Monday October 11, 2021

Your [gitlab](#) repository should now contain a folder called Program-2 containing the code for a modified the 8-ball Pool End Game (do a [git pull](#) to see it). Add code that draws a circle where the cue-ball would be at the time of impact with the 8-ball, as shown below. The new circle is only drawn when the cue-ball would hit the 8-ball before hitting a rail, and only when both balls are stationary and not in a pocket. Hint: There is already code to compute the center of the ball at TOI. This can be used whether or not the balls currently overlap. Examine the rest of the code to see how to draw a circle.



Students in CSCE 5255, in addition to the above, add code that draws a line showing the path of the cue-ball before impact, and lines showing the paths of both balls after impact. For full credit, those lines must end at a rail. I have given you a function

```
void CRenderer::DrawLine(const Vector2& p0, const Vector2& p1, XMVECTORF32 c);
```

which draws a line of color *c* from point *p0* to point *p1*. The line color parameter *c* should be set to `Colors::AntiqueWhite` for the cue-ball lines and `Colors::Magenta` for the 8-ball line.



Once you have completed the task, commit and push your Program-2 folder before the deadline at the top of this page. The finished program must compile and run without crashing, and your source code must be correct, compact, logical, and legibly commented to receive full credit. Remember to do a `git status` to make sure your code was pushed correctly.