Game Report

Laser Tracer is a Top-Down puzzle game. Your goal in this game is to use the limited provided mirrors available to reflect the laser beam to the golden beacon to complete the level.

I approached this game with a creational pattern design, A lot of the coding was done in different parts of classes and objects. Also I used some grid management using arrays so I can have various grid sizes and I don’t have to manually code the playable grid.

The game concept I went with here is using some light tracing from the laser emitter and searching if it collides with a glass material or the gold material in the beacon.

After checking for the glass material I use a mirror function to reflect in the opposite direction my next light beam and I have everything in a loop till the laser hits the gold beacon.

Before entering any level I created a simple user Interface with a play button where you proceed in selecting on which level you want to play, a controls button were you can see the control keys used for this game and a quit button to exit the game. Also by pressing M while in a game session a pause screen will appear.

Regarding security there isn’t any collection of data from the user. I would have done differently the grid system with the mouse location since I had quite a lot of problems implementing my placeable mirrors snapping in the middle of the grid, I do have a class converting the mouse location and choosing from the grid the closest position to snap to, but I chow to remove it since it wasn’t quite snapping to where the mouse was aiming.

Regarding collision with the spawn able mirror and its surroundings I had created some functions checking for collision with other actors in the scene but it broke down after implementing more stuff to the project. After some testing that’s when I decided to remove the snap to grid feature. The results I got after my first play test was I had some infinite loops causing my game to crash when it collided with the gold beacon, I used a lot of debug breakpoints through out my testing runs to look at the different variable’s values.

If I could add anything else is to add a counter for the available mirrors left. Also to fix the snap to grid function and the mirror collision so I cant place a mirror on top of a mirror.