322COM Reflective report

For my coursework I have been given the task of creating a real-time ray tracer using C++. I accomplish this task I chose to use the SDL library as it allows for easy manipulation of the pixels on screen, as well as methods for receiving user input.

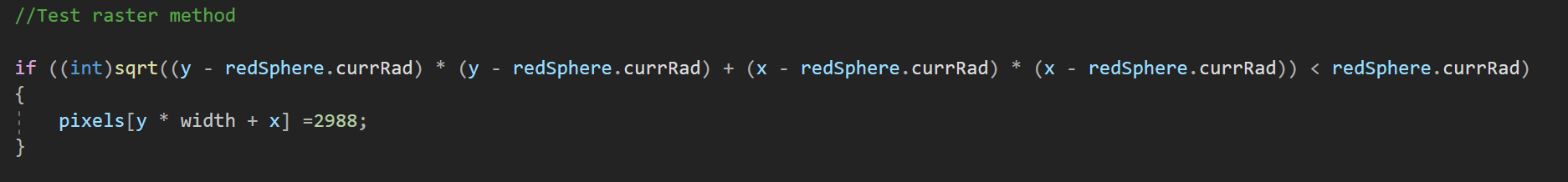
I used multiple resources to help build up my application, with my main starting point being [this article](https://www.programmersranch.com/2014/02/sdl2-pixel-drawing.html). I chose to base my code from this example because it uses an SDL Texture, as opposed to an SDL Surface. SDL Textures are new to SDL2, and are superior to surfaces as discussed in [this SDL to SDL2 migration guide](https://wiki.libsdl.org/MigrationGuide):

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While the performance difference for an application such as mine may be minor, I still wanted to use all the tricks I could to get the best performance from my ray tracer.

Once I had the ability to set individual pixels, I created an instance my sphere class and wrote a non-raytraced draw function to test that everything was working.

A picture containing graphical user interface

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