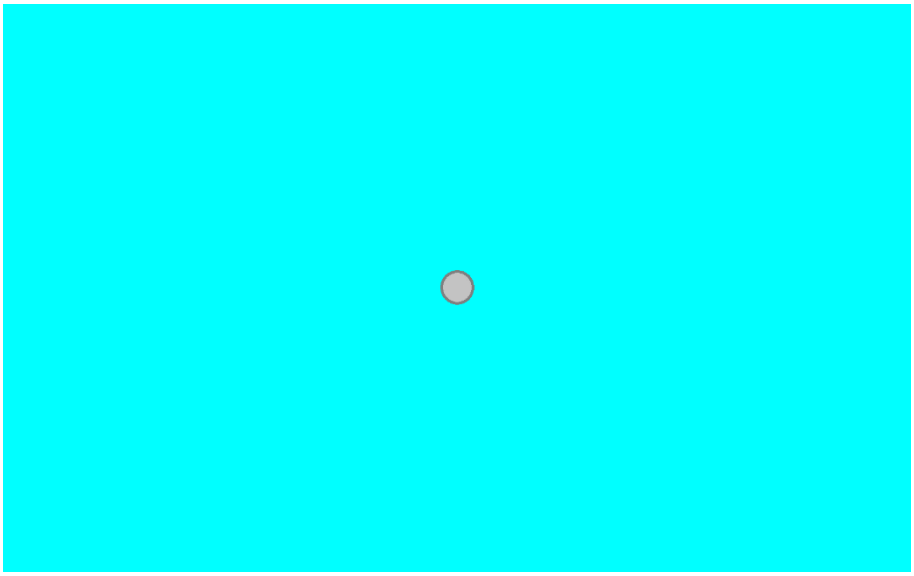
COMP710: Studio Session 05 – Exercise:

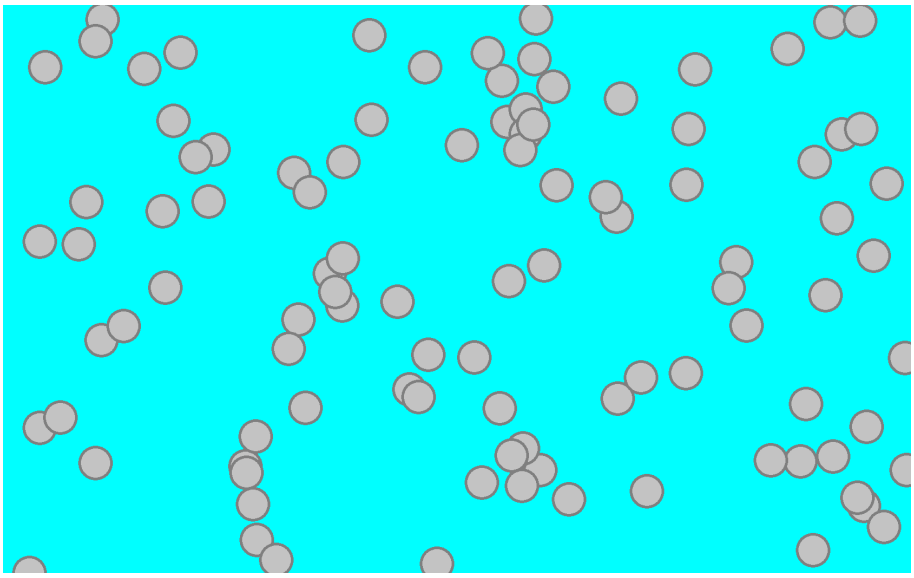
EXERCISE NAME: *C++ – Bouncing Balls*

In your **`Game`** class, create one **`Sprite`** instance using the **`ball.png`** file. Ensure that when setting up the **`Renderer`** that it is windowed, and at least 1680 by 1050 pixels in size. Position the ball at the centre of the window.

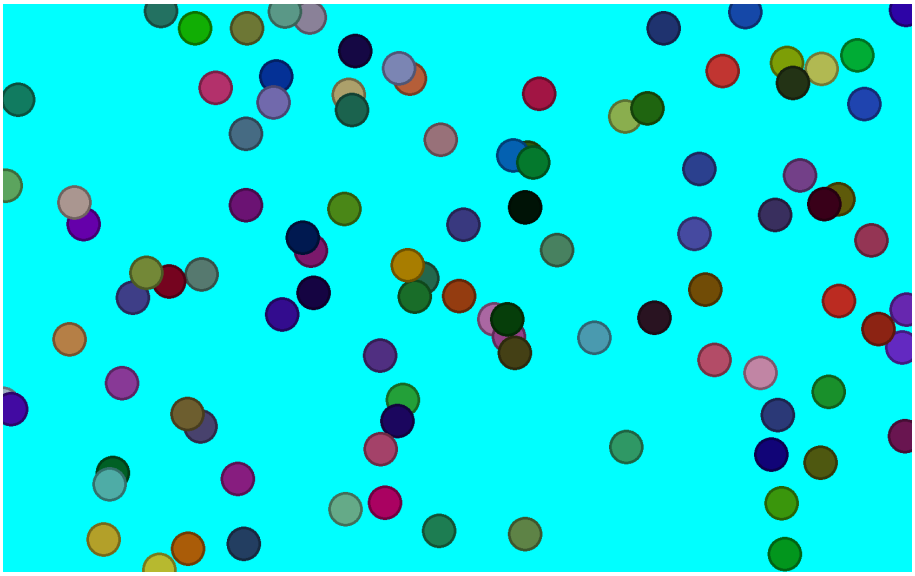
Draw the ball:



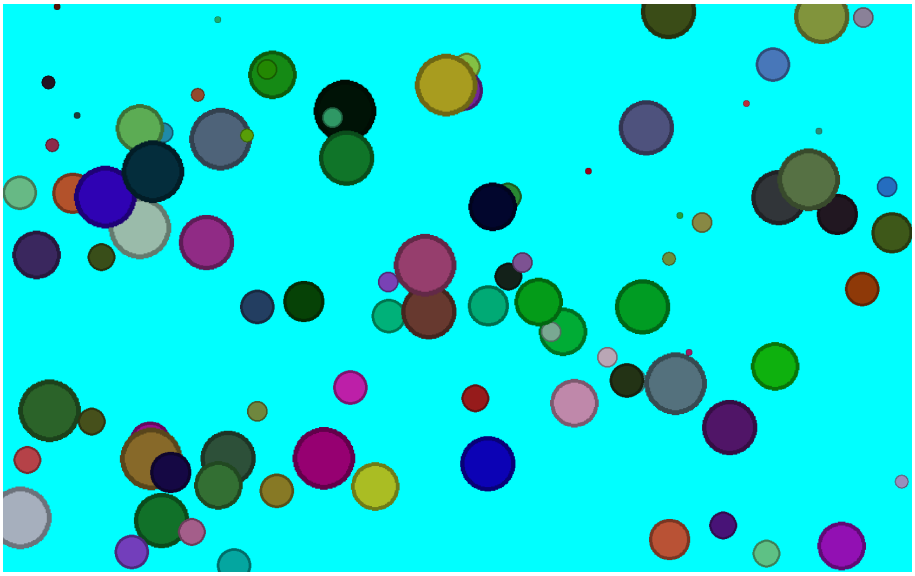
Next, update your source code to create 100 balls, each with a random position within the window:



Next, update your source code to give each ball a randomly generated colour tint, for example:



Next, update your source code to give each ball a randomly generated scale, for example:



Finally, see if you can randomly move each ball; and if a ball gets to the edge of the window, that it is bounced back into the window such that it is always fully visible. Beware, don't let your balls get stuck at the edge of the window as shown in the picture above – ensure you spawn the balls fully inside the window!

Once complete, commit your program's source code to your individual SVN folder – include the **`.sln`**, **`.vcxproj`**, **`.cpp`** and **`.h`** files, and ensure you do not commit any build output files.