Collisions

In this exercise, we will look at advanced collision detection on the canvas.

Exercises

1. Modify the ball "class" from the previous lab to include a colour and a mass. Choose some appropriate initial values for these properties.

2. Create a second ball object. Give it appropriate properties, and have it move on the canvas, similar to the first ball

3. Write a function to detect collisions between the two balls. Print a visible message to the canvas every time a collision is detected. The method to achieve this is detailed in the lecture notes.

4. Once collisions can be successfully detected, implement perfectly elastic ball reactions (as described in the lecture notes.)

5. Replace the two balls with peace symbols (as completed in lab 3).
6. Have the balls change colour after each collision

Advanced exercises

1. Add a y acceleration for gravity affect and apply it to one of the balls. Have that ball also lose some kinetic energy on every bounce
2. Experiment with different sphere sizes/masses
3. Implement collision system for several balls (with scalable code)