CSCI 232: Lab One
Due: February 3, 11:59pm

Overview

In this lab, you will write a program called `MDSimulation.java` whose requirements are described here:

http://introcs.cs.princeton.edu/java/assignments/collisions.html

Notes

- As suggested, use the *event-driven* approach for determining when the next collision happens.
- You should begin with getting a single particle working (bouncing off of the walls of the box).
- **Animation**: Once you have your priority event queue working, you can implement the animation part using the StdDraw library code (provided in `algs4.jar`).

  Each time you retrieve a valid next collision from the priority queue, you will need to animate the motion of the particles in time up to the collision. The velocity of all particles won't change until the collision so you can redraw them moving along that direction. You should decide what the best refresh rate is to get a smooth animation. See the `TestStdDraw` in the `code/projects` directory in the 232 google drive folder for a simple example.

- Your program should run from the command line:
  `java MDSimulation < input.txt`
  where `input.txt` is in the format described
  (you will need `algs4.jar` in your CLASSPATH)
- Some input files are provided; you should create simple ones first for testing.

Submission

Submit using the D2L dropbox prior to the due date.

*Only one submission per group is required **BUT** you must put **ALL** group member names in the comments of your program.*