CISC106 Fall 2009 Project 1 Part 1

Oct 23

Team rosters due. Team assignments due for all nine part 1 functions and nine test functions. Team must submit declaration of team name and member names and UdelNetIDs via a single email (see email instructions below) to professor by 11:59 p.m.

Example:

```
Subject: 106 Project 1, The Wombats

The Wombats:
Xenon Raqzx, xraqz: drawCircle, atEdgeTest, reflectCircle, ...
Zorpon Minzq, zminzq: updateCirclePositionTest, ...
Pweebl Xanz, marys: ...
```

Oct 27

Partial grading test function for top-level project function released to class.

Oct 28

Individual versions of your assigned functions and test functions due at midnight. (If you really wait until this deadline to finish these, you may have trouble finishing this part of the project.)

Oct 28

Single team submission of project 1 part 1 (all functions and all tests) due on Sakai before 11:59 pm.

Readings

- Review your class notes about the project from Oct 19.

- `http://en.wikipedia.org/wiki/Elastic_collision`

Project Overview

As discussed in class, we are going to write a system of bouncing circles. In part 1, you will mimic fully elastic collisions with walls only.

What is a board?

For our purposes a board is a structure that represents the figure you will draw your circles on. It has the attributes xmin, xmax, ymin, ymax.

What is a circle?

For our purposes a circle is a structure that has the attributes: x coordinate of center, y coordinate of center, radius, velocity along x-axis, velocity along y-axis, color.

Why are we in teams?

Working in teams is a common way to produce large coding projects in the real world. In particular, it is very hard to write good testing software for your own code, because you are likely to make the same assumptions and mistakes when writing the test that you do when writing the code. Teams give perspective, a chance to learn from others, and almost always produce a better product than people working alone[1].

How will we be graded?

You will be part of a coding team. You will be individually responsible for certain specific parts of the project, and one third of your grade will be based on your achievement of those parts. One third will be a grade for the achievements of the team. The team grade will be apportioned among team members by the team, using a blind rating system where each team member rates the contributions of their peers. The final third will be based on project questions given in a quiz or exam.

Questions

Please be sure to check the online FAQ before you send a question to the TA or your professor.

Email

Any email about the project to the professor or your TA must include "106 PROJECT *yourteamname*" in the subject line. Emails without this may be ignored and/or discarded[2].

What must be done before Oct 23?

1. Form a team of 3-5 people (no larger or smaller teams). **Team members must all be registered for the same lab section.** Smaller is generally better. Decide on team member for each role. No person may have two roles. (The professor reserves the right to add to, subtract from, and re-organize teams.)

   NOTE: *You* form teams, but only the professor can break a team apart. Individuals are *not* allowed to leave a team without the professor's permission. Teams are *not* empowered to "vote people off". Form carefully - breaking up is hard, and nobody wins.

2. Assign functions and test functions evenly among team members.

3. Give roster and assignments to professor in a single email.

4. Select someone for each of the following positions. Your choice will only last about two weeks, so don't stress over it, but read the descriptions carefully and choose wisely to ensure a smooth team experience. In the event that nobody wants the job, the team must assign the job to someone so that the TA and Professor know who is responsible. Not everyone has to have a job. Coming to censensus about who belongs in which position often yields better results than simple voting, but come to a decision quickly.

---

[1]If you think that you can actually write better code by yourself, you are probably mistaken. But if it is true, then work to help your team since this whole project is ten percent of your grade.

[2]Adding this information to your subject line allows us to categorize emails automatically. Help us help you!

You will not be graded on your performance of your job; not directly, anyway. But *good* performance will earn the gratitude and respect of your teammates (which is good for your grade) and will improve the project outcome (which is good for your grade).

Read every job description before you begin.

- Librarian: stores the project as it develops, builds the testing function from components as they are submitted. Should be comfortable writing test functions, moving files around, esp. in Unix. Will perform the final team submission.

- Recorder: this person will document what takes place in labs and other team discussions[3] Documents every decision made by the team. What qualities do you think this person should have?

- Team leader: Everyone on the team is responsible for team progress, but this person will be responsible for guiding the team. This person must be able to keep the tasks in mind, direct the team priorities, keep discussions on track, and **make sure that all team members are included** in discussions and work.

  After every meeting, chat, Skype, or email session, the team leader makes sure that everyone knows the next time or place to meet (virtually or physically).

  Note: this position does not require technical expertise. It requires the ability to guide quietly and subtly, and excellent observation and listening skills.

Communication

Work on the project within your team only. Seek help and explanations from your team members, not from members of other teams. In particular, DO NOT communicate with another team or outside person about how they wrote a particular function or test. Feel free to send your code or thoughts to other members of your team, but not outside the team. Violations of this policy will be considered academic dishonesty (see the class web page).

All team-related emails[4] to another member of the team must be cc'ed to every team member. This means that everyone will need to be especially careful when choosing their words to comment on someone else's code, timeliness, new shoes, etc.

Team Member Evaluations

Here are the parameters on which team members evaluated each other in a previous semester. As your team works, keep these in mind. DO NOT perform this evaluation until I send you the webpage link - it will be done online.

On a scale from A to E, with A meaning Strongly Agree, E meaning Strongly Disagree:

1. Team member attended all meetings (classes and labs).

2. Team member was always on time.

3. Team member completed tasks by **team** deadlines.

4. Team member completed tasks by **class** deadlines.

---

[3]which are not required, but may take place in some teams.

[4]This rule applies to any written words, including text messaging, paper, etc.

5. Team member's work was high quality and well-designed.

6. Team member corrected any code problems quickly.

7. Team member was pleasant to me.

8. Team member fostered a cooperative team environment.

9. Team member fostered a productive team environment.

10. Team member communicated according to project directions.

11. Team member responded quickly to team requests.

12. Team member communicated well about their work progress, both about successes and challenges.

13. Team member stayed on task.

14. Team member did their share of the work.

15. Team member took their team role responsibilities (leader, librarian, recorder) seriously.

16. This team member was a positive force in our team progress.

17. I would like to work with this team member again.