COMPUTER SCIENCE E-1

Understanding Computers & the Internet

PROBLEM SET 9

Due Monday, May 6 at 5:30pm

1 question, out of 40 points

Academic Honesty

All work that you do toward fulfillment of this course's expectations must be your own unless collaboration is explicitly allowed by the staff. Viewing, requesting, or copying another individual's work or lifting material from a book, magazine, website, or other source—even in part—and presenting it as your own constitutes academic dishonesty, as does showing or giving your work, even in part, to another student.

Similarly is dual submission academic dishonesty: you may not submit the same or similar work to this course that you have submitted or will submit to another. Nor may you provide or make available solutions to homework or exams to individuals who take or may take this course in the future. Moreover, submission of any work that you intend to use outside of the course (e.g., for a job) must be approved by the staff.

If in doubt as to the appropriateness of some act, contact the staff. All forms of academic dishonesty are dealt with harshly.

Submission Instructions

To submit this problem set, head to E-1 Submit (http://cse1.net/submit), where you can upload your Scratch file.

Starting from Scratch

1. **(40 points)** Let's make a program in Scratch! First, head to http://scratch.mit.edu and click "Signup" at top-right. Choose a username (anything is fine) and password, and make sure not to forget them! Next, download and install Scratch, which works on Windows, Mac, and Linux. After you're all set up, take a look at the Scratch examples from lecture and section from the course website. Once you have a handle on Scratch, it's time to make your own project! Feel free to make whatever you want, whether that be an animation, a game, or something else entirely! Your program, however, *must* meet the following requirements:

- Your project must have at least two *sprites*.
- Your project must have at least three *scripts* in total.
- Your project must use at least one *condition*, one *loop*, and one *variable*.
- Your project must use at least one *sound*.
- Your project should be more complex than the examples shown in lecture (e.g., petting a cat), but need not be as complex as Scratch Scratch Revolution or Frogger.

You should feel free to browse the Scratch website for inspiration, but try to come up with your own idea for a project! Once you have an idea, first sketch out a game plan. Just like we did in lecture and section, build up your project step by step. Break the large task of creating an awesome program down into smaller pieces, and then implement each of those pieces. If you get stuck, don't worry! Try to think of different approaches to the problem, and the course staff is ready to help on http://cse1.net/discuss.

Once you've finished, click "Share" and then "Share This Project Online" toward the top of Scratch's window. You should be prompted for your username and password, and then your project will be uploaded to the Scratch website. If you head back to http://scratch.mit.edu, you should see your masterpiece under "My Projects." Feel free to share that link with friends and family to show off your creation! Finally, upload your `.sb` file to http://cse1.net/submit. With that, congratulations on finishing all of E-1's problem sets!