cisc3650, spring 2012, assignment for unit II / prof sklar.

Overview

This is the assignment for unit II. It is worth 10 points, or 10% of your term grade. There are two parts: a written part (3 points) and a programming/evaluation part (7 points). Both parts are due on MARCH 14 by midnight, using the electronic submission system (instructions are on the class web page).

Part 1. Written component

0. Read the two chapters on evaluating interfaces that are in the Coursepack:
   - Human-Computer Interaction, by Alan Dix, Janet Finlay, Gregory D. Abowd and Russell Beale, Ch 9, Evaluation Techniques
   - Web Usability: A user-centered design approach, by Jonathan Lazar, Ch 9, Usability testing

1. Explain the differences between evaluation approaches used by experts as opposed to evaluation approaches taken by users. I don't just mean that one is done by experts and one is done by users—think about the differences in terms of the GOALS of each type of evaluation. If you wanted to have your new whiz-bang software application evaluated, what would you expect to learn from an expert? What would you expect to learn from a user? *(1 point)*

2. What are the advantages and disadvantages of conducting pilot studies in a laboratory versus field studies in a situated environment? *(1 point)*

3. List three types of quantitative (numeric) data that might be collected from users during a user study. Explain what each type is and what you, the system designer, might expect to learn from collecting each type of data (in general). For example, if you are evaluating software for filling out a tax return, you might time how long it takes users to fill out the form. The amount of time it takes would be a quantitative measure, and you would be collecting this so that you could estimate how long it takes, on average, to fill out the form. *(1 point)*

Part 2. Programming and Evaluation component

This part of the assignment builds on **labI.2** and **labII.1**. Your job is to modify a game (written in HTML5 using a canvas) and create a study that can be used to evaluate the differences between the baseline game and your modified version. *Note that your modified version will be played by your classmates, who will also participate in your study.*

0. Start with the sample code posted on the class web page, on the syllabus page for February 29: **mygame.html**. Load the code and play the game. This is the **baseline** version of the game.

1. This is a simple game, but you can still conduct a **heuristic evaluation** on the game interface. Referring back to the elements of this type of evaluation that you did in **labII.1**, fill out an evaluation for this game. *(1 point)*

2. Think about how to improve the game in two ways:
   (a) **visual presentation** of the game (what the user sees); and
   (b) **functionality** of the game (what the user does).

   Now modify the code, changing two elements—a visual element and a functional element—and following these guidelines: *(4 points—2 points for visual modification and 2 points for functional modification)*

- The modifications should be SMALL, so that the results of your evaluation study (below) can be compared to the original game. For example, don't convert the game to something completely different, like chess or tic-tac-toe. Instead, do things like modify the shape(s) being animated and the user's controls.
- BE SURE to give your game a NAME and include that name so that it displays in the HTML file so that the name of the game displays on the web page.
- ALSO, give your HTML file the name of your game. For example, if my game is called "Fun With Blocks", then my HTML file would be called **fun_with_blocks.html**.

3. Create a **satisfaction survey** in order to evaluate the differences between the baseline version and your modified version. *(2 points)*

   This should be a PDF file that contains your survey for users who will evaluate your game. Make sure that your survey contains questions that address both types of changes you made (visual and functional). *Refer to the Lazar chapter for information about satisfaction surveys.*

   Also MAKE SURE that you include the NAME OF YOUR GAME at the top of the survey. (Your classmates will complete the survey, and this is so that they know which survey goes with your game.)

   The survey should be no longer than one page!

Submission

- The answers to the WRITTEN COMPONENT should be contained in a PDF file.
- The HEURISTIC EVALUATION should be contained in a PDF file.
- The PROGRAMMING COMPONENT should be contained in an HTML5 file. You may also include CSS and image files, if part of your modification.
  Don't forget to give your HTML file the NAME of your game. Don't call it something generic (like "mygame.html") and don't include your name in the name of the game (like "game_by_jackey.html").
- The SATISFACTION SURVEY for your game should be contained in a PDF file.
- Zip together all the files for the assignment.
- Submit your assignment electronically, using the submission page linked on the class web page.