cis20.1-fall2007-sklar, assignment IV

instructions

- This is the assignment for unit IV. It is worth 14 points.

- **THE ORAL PRESENTATION is due on MONDAY DECEMBER 10**.

- **The programming part is due on Wednesday December 19 at 9am**.

- The programming part will be posted on your class web page.
  Email me the name of your system home page.

DESCRIPTION

For this last project, you will put together what you have learned this term regarding user interface design, graphics, net-centric systems and software engineering.
There are two parts to the assignment:

- The first part is an ORAL PRESENTATION to be done on the last day of class (December 10).

- The second part is an implementation, to be posted on your class web page no later than December 19 at 9am.

VERY IMPORTANT NOTE: keep in mind when you design the system in PART 1, that you will not have oodles of time to implement (in PART 2) what you are designing. Make sure that you design a tractable system that you can COMPLETE in the time allocated.

THERE WILL BE NO EXTENSIONS!!! I will grade the implementation starting at 9.01am on Wed Dec 19. If it isn't on your class web page by then, you will get a 0.

FOR THE IMPLEMENTATION:
You may use a combination of JAVA and PHP and/or PERL.
You must use some JAVA Graphics!
YOU MAY NOT USE NETLOGO OR SCRATCH!

1 PRESENTATION: design review

Design a system of your choice that employs techniques we covered in class.
You may decide to complete the implementation of your on-line photo album. You may decide to expand on you "myface" web site. Or you may decide to do something completely different.
In class on MONDAY DECEMBER 10, you must present your design review (see below) as an oral presentation in class. PDF, POWERPOINT and HTML are all acceptable formats.

1. What are the requirements of your system?
   Explain how your system will use elements of the topics we have covered this term: (a) user interface design, (b) graphics and (c) net-centric systems.
   (1.5 points)

2. Write a specification to satisfy the requirements.
   Using the techniques we covered in class on Monday December 3, develop a technical specification to implement the design requirements.
   (1.5 points)

3. Design the specification.
   Design the interactive portion of the system. Show a design for at least one screen shot. Show a tree of all screens you will use in the system.
   (1.5 points)

4. Test specification.
   Explain how you will test the system—what kinds of unit tests will you run? What will you measure? How will you determine if your system passes the tests? Include at least 3 tests.
   (1.5 points)

5. Oral presentation
   Present all of the above in a clear and concise 5-minute oral presentation given in class on Monday December 10. You must have visual slides, using PowerPoint or HTML or PDF. You should have at least one slide per topic (above), i.e., 4 slides; you can have more.
   (2 points)

NOTE that the DESIGN PORTION counts for 8 out of 14 points! THAT MEANS IT IS IMPORTANT!

2 IMPLEMENTATION

1. On your class web page, implement your system, as specified above.

2. You MUST use JAVA for the GRAPHICS component.

3. You may also integrate PHP and/or PERL.

This portion is worth 6 points.

When I mark this part, I will be looking for clarity of design and ease of use as well as functionality as advertised (i.e., the system shouldn't break).

I will also run the 3 tests you specify in part 1.