

**IS 6833 -- WINTER, 2009
FINAL EXAM**

You must complete Question 1 and *two* of the remaining nine questions. Each question will represent one-third of the credit for the exam. Answer each question clearly and neatly. Type (wordprocess) the answers, with no more than 2 pages each, double spaced with 1" margins. If I cannot read your answer or understand your grammar, or if you provide multiple answers, the answer will be wrong.

You may have notes, books or other reference materials that you desire. However, you must do the exam *alone*.

This exam is due on Monday, March 11 by 7:45 pm. Turn in hard copy of the exam — do *not* email the exam to me.

1. Create a table in Oracle that includes a student's name, id number, major, current gpa, number of hours completed and number of "honor points" earned. (Note "honor points" refers to the sum of points associated with the grades in classes completed; each class for which someone gets an A gets 4 points, etc.)

Create a web-based system (using ColdFusion, javascript and html) that will:

- a. Allow a student to enter his or her data into the table
- b. Compute the average GPA for students in his or her major
- c. Display the average GPA for students in his or her major both with and without the new data considered

Remember, I will evaluate your answer: (a) to determine if you know how to use ColdFusion and JavaScript *and* (b) to determine what you have learned about decision support systems.

For this question, print the url on your exam paper *and* email me the url.

2. There are multiple critical functions that a MBMS (model based management system) must provide, including alternative generation, model selection, access to models, and sensitivity analysis. Discuss how you might include these functions in a system that is intended to provide support for someone selecting a computer system.
3. In one of your recommended readings, Armstrong said, "Better predictions of how other parties will respond can lead to better decisions." Discuss how you might build such a capability into a DSS. (See, <http://www.umsl.edu/~sauterv/DSS/armstrong.html>)
4. Discuss the ethical issues that face the designer of a DSS when bringing together data from a variety of sources and making those data available to a variety of decision makers.
5. Suppose you were designing a campaign management DSS for one of the candidates. Part of the information in such a system, clearly, involves how he is doing in the polls. Consider the information available on the "Ask Polly" website (<http://www.pollyvote.com>). How would you use these data in your DSS (assume they were supplied to you electronically in any form you want). Be specific in your response.
6. How would you evaluate a decision support system to determine if it is effective? Discuss the procedures for testing and the mechanisms for evaluation.
7. Suppose you were in charge of the data warehouse project at your company. The company has decided that it will maintain information about customers, including their purchasing behavior and any other information you can collect about them from other sources, in the data warehouse. Provide a two-page memo that outlines such a plan. Discuss the data that would be included, the data that would be excluded and how the data would be managed to get the best return. Also discuss the advantages and disadvantages of such a plan. Remember to discuss the issue both from a DSS perspective (including data mining) and an ethical perspective.
8. Discuss how Google's data mining and GapMinder's data analysis efforts could be used to improve public policy discussion in the United States.
9. Early in the semester we discussed the review of a book called *Blink* (the review is at http://www.umsl.edu/~sauter/DSS/intuitive_time11005.gif). Discuss the implications for DSS if the author is correct in his assessment of decision making.
10. Write and answer your own *substantive* question regarding DSS and Business Intelligence.