Orf 401
10th Week Exam
Tuesday, April 29, 2011

Instructions

1. You have until 8:50 pm to complete the exam if you are taking the exam in Sherrerd 101. Else, you have a maximum of 80 minutes for the exam. Place it in a sealed envelope stating the start and end times. Return the exam to my office: 229 ORFE Building. If you are doing the exam electronically, then submit to Blackboard with a start and end time. All exams must be completed by 11am Wednesday.

2. There are 3 questions having many parts. If you think before you write, it may take you the whole 1:20 to do the exam (which I highly recommend)! Be concise and please answer MY question. Don’t add some of your own; I won’t grade them!

3. If you do the exam the old fashion way, then please use a pencil and write neatly. I can’t grade what I can’t read. Write the start time and end time on the front of the exam booklet and sign the pledge.

4. If you choose to use a computer to type the answers, then you are to use the computer ONLY for that purpose and MUST state in your signing of the Pledge that you complied with this requirement. That means that you are NOT to look up anything or refer to anything not even an electronic version of your cheat sheet. You should intersperse electronic version of this exam with your answers. Submit this edited version to Blackboard with the Start filled in here: Start Time: __4.00 AM_________. End time will be the time at which Blackboard logs the receipt of the exam which MUST be no later than 80 minutes after the time noted above. The pledge must be stated explicitly. Submission to Blackboard implies your signature.

5. You are permitted to use a 2-sided 8.5x11 inch paper “cheat sheet” if you have not violated the University’s honor code in its preparation (Basically, you wrote and prepared it; it is not a copy of someone else’s). You MUST turn in the original with your exam or to me in class on Wednesday if you chose to submit your answers electronically. Remember: during the exam, you are only permitted to use the paper version of the cheat sheet., NOT some electronic version!!!!!!!!!!!!!!!

6. I will only grade exams that have a signed pledge. The pledge must be stated explicitly. Submission to Blackboard implies your signature.

The Pledge: I pledge my honor that I have not violated the Honor Code during this examination.

7. Good Luck!

1. (30 pts.) Generalities
   a. (4pts.) What two eCommerce companies did you analyze and how are they doing these days relative to where they were at the beginning of the semester?

   I analyzed Symantec, an information security company, and Blue Nile, a company that is an online retailer of custom jewelry, especially diamonds.

   The last time I checked (which was around two weeks ago), these companies were very close (Symantec within $3 and Blue Nile within $10) of what their stock prices had been at the beginning of the semester. Neither has shown a particularly bullish trend.

   Part of the reason for this “flatness” is that the market itself hasn’t been in a particularly bullish trend – and has faced some shocks, including the economic fallout of the Japanese tsunami.

   b. (6 pts) Hash Tables
      i) (2 pts) Give me a pragmatic example of a data set that you would place in a Hash Table.

      ii) (2 pts) List the steps used in storing data into a Hash Table

      iii) (2 pts) List the steps used in retrieving data from a Hash Table

   c. (4pts) PHP vs Java
      i) (2 pts) What was the main reason for your choice of server-side programming language?

      The main reason for our choice (PHP) is simplicity. PHP code can be opened and edited using any ordinary text editor, and it can be read by almost any browser on the market today.
ii) (2 pts) How did that decision (or do you think might) limit what you could do?

d. (4pts) How would you superimpose a diagonal line representing a road on top of a Google satellite image on your client-side web page?

e. (4pts) TCP vs UDP
   i) (2 pts) Primary advantage of TCP? Give an example of its use.
   ii) (2 pts) Primary advantage of UDP? Give an example of its use.

f. (4pts) Cookies
   i) (2 pts) What is the primary advantage of cookies?
   ii) (2 pts) What limitation do cookies have that protect privacy?

g. (4pts) Why should one expect to be able to gain larger advertising revenue per placement in a nCommerce App than a normal eCommerce App?

2. (35 pts.) The Great DVD

   a. (5 pts.) The Great DVD was actually a pretty good concept for an eCommerce Company when it was first conceived 10 or so years ago. In fact after the concept was first rolled out in Orf 401 someone actually built and operated a “LookAlike”. However, things change! The “LookAlike” no longer exists (I should track down its history) In 25 words or less, what was the most significant change that would have shuttered The Great DVD?

   b. (10 pts.) In retrospect, you should have saw this coming and starting 8 years ago you would have begun to make changes. Those changes would have been rolled out about 5 years ago. What were those changes that allowed The Great DVD to evolve and prosper into “The New Great DVD” (actual name change is optional but used here only for reference purposes)? sport environments. If permissible though, that would be a great expansion opportunity too.)

   c. (5 pts.) Things continue to change and you are now feeling new pressures that threaten the future viability of “The New Great DVD”. What are these changes in the marketplace that threaten “The New Great DVD”? (Be succinct!)

   d. (5 pts.) What changes would you recommend at this time so that it will continue to prosper? (At most the top 3, just list them)

   e. (10 pts.) Obviously you have not already done a quantitative analysis of your recommendations above; however, you must have some “gut” feeling about the benefits that might accrue from the implementation of such recommendations and their costs to implement then in terms of money and time. Outline an analysis that you would conduct to quantify those benefits and costs.

3. (30 pts.) Broader Issues

   a. (20 pts) The “ In a large sense eCommerce enables the rare to find its match. Amazon enabled the rare person to find a rare book irrespective of the popularity of that rare book nor the resources available to that rare person, other than access to Amazon.com. eBay has allowed the rare item to find its best next owner irrespective of the value of that item. Google has allowed one to find information relating to even the rarest questions. FaceBook is allowing efficient information exchange between “friends” having the rarest kind of interrelationships. ChatRoulette is… we won’t go there;….

When you come back to Princeton for your 25th reunion, what will eCommerce look like and be sure to tell me why it will look that way? (Think before you write and be succinct!)

   b. (15 pts) Health care is something like 17% of GDP and has been increasing substantially faster than inflation. Some suggest that eCommerce could curtail the increases and even reduce the cost of delivering health care services. One element in the delivery of health care is that the patient is largely taken out of the decision making loop. Once you’re paired up with a hospital and a physician, you might as well become brain dead, because the doctor/hospital is going to decide what is best for you. You are never given a Chinese menu suggesting that you can pick one from column A, two from column B etc. including a price. The buying experience in nothing like purchasing eCommerce goods and services.

   i) (10 pts) If you were to make the purchase of health services more like purchasing eCommerce goods and services describe an App or Website that would allow you to better purchase the Health Care services that you need and want subject to your financial constraints if you fell down the Sherrerd Hall steps and broke your right leg.

   ii) (5 pts) Why would this be better than the current system?