

INFM 603 Final Exam

Available at: 9 PM May 9, 2012

Due by email to oard@umd.edu with subject line FINAL EXAM at: 3 hours after you start, but no later than 9 PM Sunday May 20

Scroll down to page 2 when you are ready to start (and not before!)

You must complete this exam in one sitting in no more than 3 hours. You can do other things during those three hours if you wish, but you must send the exam by email within 3 hours of starting it (and no later than 9 PM on Sunday May 20). Write down the time when you start and when you finish. You may use any resources that existed before this exam was disseminated. You may not communicate with any person about this exam. You will be working with your partner on your project and we will all be together for project presentations in class during the period before the exam is due, so it is especially important that you not say ANYTHING about this exam during the period when other students may not yet have completed it. A total of 30 points are available for this exam.

1. (20 points) Answer one of the following questions by creating a Web page that includes:
 - a. a JavaScript program that reads a user-entered currency amount in Belarusian Rubles and prints the corresponding values in the first 10 other major world currencies that are listed at <http://www.xe.com/currencytables/?from=BYR&date=2011-05-09> at the conversion rates in effect on May 9, 2011. Your program must use two arrays, one for the currency codes (no need to give their names) and one for the conversion rates, and it must use a loop to compute and display the results.
 - b. a modified version of the JavaScript program that you can find at <http://www.umiacs.umd.edu/~oard/teaching/603/spring12/slides/5/selector2.htm> that works as it does now for people age 6 and older, but that directs people age 5 and under to contact the librarian for assistance.
 - c. A JavaScript program that uses the Document Object Model (DOM) to reverse the text in the title field of the same Web page that contains the program. The text in the page title should appear inside the Web page in the ordinary form, but the text should be reversed when it appears in the browser tab. This only needs to work on one browser (I will test it on recent versions of Explorer, Firefox, an Chrome).
2. (10 points) Using a Word processor (e.g., Word), provide short (a few sentences; no more than half a page) answers for two of the following questions:
 - a. Explain why Drupal uses both PHP and MySQL by first explaining what Drupal could not do if it didn't have a database, and then explaining what Drupal could not do if it didn't have a server-side programming language such as PHP.
 - b. State three different reasons for using new or existing "functions" (which might also be called subroutines or methods) when writing computer programs. Your three reasons each must be really different – restatements of similar reasons emphasizing different details will count as one reason, and you may list no more than three.
 - c. Explain why performing entity-relationship modeling before actually building tables can lead to better database designs.

Type by hand (no cut and paste) at the bottom of your file the University of Maryland honor pledge: "I pledge on my honor that I have not give or received any unauthorized assistance on this examination."

Send your program (as a .html file) and your word processor document (as Word, PDF, or text) to oard@umd.edu with subject line FINAL EXAM. Email will be acknowledged within 12 hours – check with me immediately if you don't get an acknowledgment!