**INFO 5100 Final Project**

The following are three ideas for your final project this semester. Your job is to focus on one of them and do a detailed analysis and design of the project. Use our system engineering techniques to implement the design. The effort will require extensive research to understand the problem and to scope your project effort. You must decide on the most important aspects that you think are critical for the success of the effort. You need to target high impact and low cost effort so you can finish a good chunk of the project on time.

1. **Same Day Delivery for Amazon.com**

The objective of this project is for you to explore how to use our eco-system engineering techniques to develop a creative solution to a major challenge Amazon.com faces right now: Same day server delivery to its customers. In this case, customers visit the amazon.com website and order products, once paid the customer will receive ordered product within hours of the time they submit the order. You will need to consider innovative ways of doing business for this to happen. Currently, Amazon.com is building physical warehouses for inventory in close proximity to its customers as a way to deliver the same day. This is very expensive and creates all kinds of challenges for the company. In your solution, you must do away with physical warehouse locations. You must find a way to incorporate the virtual alternative of inventory management so that same day delivery is possible. The challenge here is two-fold: A business architecture to support the new way of doing business as well as the underlying technical architecture and system to make it happen.

1. **Internet Advertising**

Web-based advertising follows an auction model where advertising space on web-pages is offered to the highest bidder on the fly. The user profile determines the prices for the advertising space. The sharper the profile in terms of buying habits and likelihood to click on the advertisement, the higher the price offered for the ad space. The auction for the ad space happens dynamically at the moment of click and only then the ad is determined for the user. User behavior is accumulated over time to sharpen the effectiveness of the ad. Your advertising system must enable world-wide operations.

1. **The Safety Rule**

The objective here is to build a website to enable hospitals, clinics, clinicians, and patients to report medical safety problems in an anonymous way. Medical errors are responsive for so many deaths and injuries world-wide. The knowledge developed is used to define best practices that help avoid clinical errors. These include better clinical procedures, improved medical devices, and more training of the clinical staff. The reported adverse events must encompass all kinds of medical categories to make it easier for organize make effective use of the gathered data. The system must be world-wide and allow for access from any country where users can report adverse events in their locality. Look up the “safety Rule” on the HHS website.