Application Engineering and Development

ISY G100

Second Exam

11/18/2011

Exam Time: Two Hours

Closed Book

Professor

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1. Best Buy is a retailer bringing sellers and buyers together. Best Buy makes money by attracting customers to its local stores. Customers buy products on display and its stores and pay in cash or on credit. Draw a complete model for Best Buy and its network of suppliers and customers. Your model must enable the capture of sales in its local stores (Each store is responsible for managing its orders.)
2. Given the model above, write java programs that show how to calculate the following:
   1. Total revenues (sales volume) by store
   2. Given a product find the top 10 stores where the product is sold the most in terms of sales volume (revenues).

You must define all the methods you need to answer the above questions.

1. Draw an UML class diagram for the vaccine distribution system you developed for the last homework assignment. Show all the classes that describe how a user can login to the system in their corresponding workarea. A user here is a system admin, an enterprise-level admin, or any employee as a worker.
2. Continuing with the Vaccine distribution system problem, draw the process flow for the vaccine distribution and inventory management we studied in class. Include aspects of vaccine production, distribution, and ordering across the whole network of involved parties. Make sure to include proper sequencing numbers. Explain the involved parities and their role in the flow.