ISchool Webstore Case Description

Please note: The conceptual data modeling and database design assignments for IS455 will only address a subset of these requirements. To identify the exact subset, please see the assignment instructions.

Introduction

A well-regarded ISchool is in the process of evaluating several information systems initiatives in order to create new sources of revenue and to promote the image of the school. One idea that has gained substantial support is to sell ISchool-branded merchandise through a Web-based online store that would be connected to (but separate from) the existing ISchool Web site. The tentative name planned for this e-commerce site is ISchool Webstore.

Problem or Opportunity Background

There is already some history of selling ISchool-branded merchandise on a very limited scale. Various items have been sold through the administrative office over the last several years. At different times, one or more of the following items have been sold: water bottles, sweatshirts, and polo shirts. Who exactly has organized and benefited from these sales is unclear. Additionally, at least one student organization has a history of offering a T-shirt for sale each year. The design, production and sale of this T-shirt has been handled by the student organizations itself. While the shirts have not typically been ISchool-branded, they are strongly associated with ISchool by the community. ISchool leadership does not wish to interfere with the fundraising efforts of existing organizations within the school that have been based upon merchandising. Accordingly, it is hoped that existing merchandising programs can use the ISchool Webstore as another channel for sales and that some reasonable accommodations can be made with these groups regarding sharing revenues and costs.

ISchool leadership wants to offer a limited number of items at any one time on the Webstore. Some few items are expected to be offered indefinitely and they are expected to be regarded as items that every ISchool student, faculty member, or alum "must have". Other items are expected to be one-time, seasonal, or annual items to encourage Webstore visitors to purchase these items before they are gone forever. Expected merchandise includes items like T-shirts, sweatshirts, hats, coffee mugs, water bottles, canvas bags, pens, and paperweights. Nevertheless, ISchool leadership is convinced that offering the full range of branded merchandise typically found at a university bookstore (from baby booties to golf balls) would be a mistake. This has driven the vision of the Webstore offering a limited number of items at any one time.

Once created, the iSchool Webstore will be staffed by the iSchool administrative staff with significant help from student employees. One of the administrative staff will be designated as the iSchool Webstore Manager. She/he will report to Renata Bookthorne (Assistant Dean of the iSchool), who will have financial and other responsibility for the operation.

Some thought has been given to practical considerations for the iSchool Webstore operation. Here are some of the details:

1. Only online sales will be allowed
2. Sales must be paid for by credit card (no cash).
3. Customers can elect to pick up their orders at the administrative office or to have their order shipped via USPS Priority Mail.
4. Care will be taken to avoid taking orders for products that are not in stock.
5. Customers may order more than one item at a time.
6. Prospective customers may send messages to ISchool Webstore personnel directly via the Webstore system.
7. The ISchool Webstore system will create picking and shipping/delivery documents so that Webstore personnel will be able to place purchases into packages and deliver them to either the USPS or the administrative office.

Scope-Related Background

Renata Bookthorne is eager to get this project underway. She is committed to creating a fully operational Webstore system during this project. This includes support for online customer ordering, order picking, order shipping / pickup, sales tracking, and inventory tracking. Renata expects that ordering from merchandise suppliers will be done outside of the system for now. She is not sure what level of integration is needed between this system and credit card vendors or the USPS. She is very interested in your recommendations about integration with other systems.

Known Functional Requirements

1. Online shopping, ordering, and paying
2. Support for the order picking process
3. Support for the order shipping / pickup process
4. Tracking of inventory levels
5. Tracking of sales
6. Tracking of credit card vendor balances for the purposes of reconciliation

Known Non-Functional Requirements

1. Support up to 10 simultaneous administrative users.
2. Support up to 50 simultaneous customer users.
3. Provide users with 2-second response time or less.
4. System outages should be resolved within 15 minutes.
5. Data should be backed-up frequently to avoid data loss.