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**Hamp Crafts' Current Process**

1. **Describe Hamp Crafts’ current purchase and supply process** by responding to the following prompts:
   * Interpret the provided data flow diagram. What does it show? What does the current purchase and supply process entail?

**Interpretation:**

The data flow diagram illustrates the flow of information and products in Hamp Crafts' current in-store purchase and supply process.

It illustrates how customer orders are placed, processed, shipped, and how inventory is managed.

The diagram highlights the interaction amongst the customers, employees, inventory system, and merchant account.

**Current Purchase and Supply Process:**

* Customers place orders in the physical store.
* The employees process the orders and verify inventory.
* The inventory manager updates the inventory system.
* The fulfillment team packs and ships the orders.
* Customer payments settle via a local secure merchant account.
* Transaction funds settle into the company business account within two business days.
* Manual communication occurs regarding inventory shortages or delays.
* Order status and tracking information are entered manually into a local database.
  + What are the data sources involved in the current process?
* Customers: Provide order information and payment.
* Employees: Take and fill orders, replenish stock, and process filling.
* Inventory System: Holds product availability and levels of stock.
* Local Secure Merchant Account: Processes customers' payments.
* Local Database: Holds order statuses and shipping tracking.

1. **Determine Additional Requirements needed to support an online storefront by responding to this prompt**

* **What additional processes are necessary to integrate an online storefront?**

**Online Product Catalog**: Displays products with price, image, and description.

**Shopping Cart**: Allows customers to add and manage items before they buy.

**Online Payment Gateway**: Integrates with a secure payment processor for Web-based transactions.

**Order Confirmation and Tracking**: Provides customers with order confirmations and shipping tracking information.

**Customer Account Management**: Allows customers to create accounts, store addresses, and view order history.

**Administrative Backend:**

* Product management (adding, editing, and removing products).
* Order management (online order viewing, processing, and fulfillment).
* Customer service (handling inquiries and troubleshooting).
* Web maintenance.
* Customer data management.
* **What additional data sources would the system have to refer to looking up the products and inventory?**
* Product Database: Database to hold product details (name, description, pictures, prices, etc.).
* Real-time Inventory Database: Database that gives real-time inventory levels, with integration of the real-time inventory system.
* Customer Database: Database to hold customer details (name, address, e-mail, purchase history, etc.).
* Online Transaction Database: Database to hold online transactions and payments.
* Shipping Provider API: To get real-time shipping rates and tracking information.
* **What additional databases, if any, are needed to support an online storefront?**
* Product Database: To hold product information.
* Customer Database: To hold customer accounts and information.
* Online Transaction Database: To hold online purchases and payments.

1. **Determine how to Integrate the New Online Storefront**

* **Would you recommend creating a separate new system for the online storefront or incorporating elements of the online storefront into the current process model? Why or why not?**
* I recommend incorporating elements of the online storefront into the current process model.

**Reason:**

* Integration Efficiency: Integrating the online storefront with current inventory and fulfillment processes allows greater efficiency and prevents data duplication.
* Inventory Synchronization: Inventory can be updated in real-time by integrating the online system with the current inventory system.
* Centralized Management: Integrating the online and store operations will allow centralized management of orders, inventory, and customer information.
* Cost-Effectiveness: Building on the current infrastructure might be less expensive than establishing an entirely new system.
* Consistency: Integrating the systems will provide a uniform experience for online and store shoppers.
* The merchant account is made such that it will take online payments, or the merchant account will have a specific payment gateway just for the online payments. Money still goes to the central business account.
* Training is given to the existing order fulfillment team so they can process the orders online, or another special team will be formed specifically for online order processing.
* The same local database will be reengineered so it can bear the online sales records.