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CS-255 System Analysis and Design

Module 3 Assignment: Evaluating A Process Model

**Hamp Crafts’ Current Process**

* Flow Chart Interpretation
  + Based on the provided data flow diagram, it demonstrates the flow of data along with activities in the current purchase and supply process of Hamp Crafts.
  + **Customer**: Everything kicks off with the customer, who places an order.
  + **Order Information**: We gather all the details of the customer's order, including what items they want to buy.
  + **Inventory System**: The order information is then sent to the Inventory System, which acts like a detective, checking if the products are in stock.
  + **Inventory Status**: The Inventory System provides us with the latest scoop on whether the products are available.
  + **Order Fulfillment Team**: This is where the magic happens. Based on the inventory status, the Order Fulfillment Team decides whether to process the order immediately or put it on hold. They're like the conductors of the whole process.
  + **Order Processing Status**: The Order Fulfillment Team updates the order's status, and this news is sent to the customer to confirm their order.
  + **Local Database**: We also record the order processing status in a local database, like an organized filing cabinet.
  + **Order Shipment**: If the order gets the green light, we send the Order Shipment info to the customer so they know when to expect their products.
* Data Sources Involved Currently
  + **Customer:** That's me when I place an order. I provide all the details of what I want to buy, my contact info, and how I want my stuff shipped.
  + **Local Secure Merchant Account:** This is like the money handler. It takes my payment and ensures it gets to the store's bank account within two business days.
  + **Inventory System:** This is like the store's memory. It tells me what's in stock and if they have what I want.
  + **Order Fulfillment Team:** These are the folks ensuring my order goes smoothly. They update me on how things are going, like if my order is ready and if it's been shipped.
  + **Order Shipment:** This is all about how my order gets to me. It includes info from the shipping company, like who's delivering my package and when it'll arrive.
  + **Supplier:** Suppliers are like the store's helpers. They give info on what they have, how much it costs, and when they can send the stuff to the store.
  + **Carrier:** Carriers are the companies that do the deliveries. They tell me how much shipping costs when my package arrives, and they even give me a way to track my order.

**Additional Requirements**

* Additional Processes:
  + **Online Product Catalog**: We'll create an online catalog with clear product images, descriptions, prices, and availability. It'll be designed to be super easy to use.
  + **Online Ordering and Payment**: You can browse our products, add them to your cart, and pay securely using credit cards, digital wallets, and more.
  + **Real-time Inventory Update**: Our system will instantly update when products are purchased, either in-store or online, so you always know what's available.
  + **Customer Account Management**: You can create your account, update your details, check your order history, and monitor your orders.
  + **Customer Support**: We need to incorporate a customer support system, including live chat, email and a help desk to support customers.
* Additional Data Sources:
  + **Product Information:** You can easily find all the info about our products, like their names, descriptions, prices, images, and if they're in stock, all stored neatly in our system.
  + **Inventory Status:** We keep a constant eye on what we've got in stock. When you see it on our website, you can trust it's available.
  + **Customer Info:** We store the basics – your contact details, where you want your stuff delivered, and your order history, so you can manage your account and keep track of your orders.
  + **Pay with Confidence:** Our payment system is super secure. It connects to your bank to ensure your transactions are safe and sound. Your peace of mind is our top priority!
* Additional Databases:
  + **Online Order Database:** We've got a unique database for all your online orders. It keeps track of what you've ordered, who you are, and where your order is.
  + **Customer Account Database:** Your customer account has its database. It knows all about you – your profile, how you log in, and what you've ordered before.
  + **Product Catalog Database:** The product catalog has a database too. It holds all the details about our products, ensuring you see online matches what's in our store.
  + **Payment Transaction Database:** If needed, we've got a database just for payment transactions. It helps us keep an eye on your orders and handle our finances.

**Integrating Online System into Current Process**

I recommend integrating elements of the online storefront with the current process model rather than building an entirely new system. This approach makes sense because it lets us make the most of the existing infrastructure, like the local secure merchant account and inventory system, which work well for the physical store. By seamlessly integrating online ordering and payment into the existing setup, we can ensure a smooth transition from in-store to online sales. This strategy also simplifies the management of customer accounts, order processing, and inventory updates. The online storefront can share the same databases and order fulfillment team as the brick-and-mortar store, making things more efficient and reducing the need for extra resources. Furthermore, this integration allows for real-time updates to the inventory, ensuring that the online storefront consistently reflects accurate product availability. It also maintains consistency in the order fulfillment process, whether customers place orders in-store or online. Through weaving the online storefront into the current process model, we can achieve a cost-effective and efficient solution that complements the Hamp Crafts' existing business operations.