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# [CS-255-H2981 System Analysis and Design 23EW2](https://learn.snhu.edu/d2l/home/1426255)

# 4-2 Assignment: Evaluate a Process Model

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The UML class diagram for Hamp Crafts' online storefront:

A diagram of a computer

Description automatically generated with medium confidence

Based on the provided UML class diagram the necessary entities and relationships to meet Hamp Crafts' needs for their online storefront are met. The diagram accounts for:

Customer Accounts with attributes methods to create, update, and delete customer accounts.

Payment Processing and Order Processing ensure there is a mechanism to link orders to specific customers.

Notifications, ensure there are classes or mechanisms for sending notifications to customers.

Administrative Back End, any classes representing administrative functionalities.

Order History ensures there is a way for customers to access and view their order history.

Alerts and Notifications for the Business Owners, alerts for business owners regarding transactions.

Consistency with Existing Processes ensures the diagram aligns with Hamp Crafts' existing processes and can seamlessly integrate with their current operations.

Scalability and Flexibility account for the potential future changes or expansions.

The object model for the new online storefront consists of several functions that are represented as public or private. These functions include, but are not limited updateQuantity(), updateProfile(), updateShipping(), addCartItem(), updateProfile(), and updateShippingInfo(). The associations between these classes are the “name” string and “email” string.

The objects would use their respective variables and functions in relation to one another. The users (Customer, User, and Administrator) must all have a name, an ID, an address, and an email address. The shopping cart relates to each customer and user that has a shopping cart. The shopping cart must have an ID and the item(s) in the cart. The customer/user must also be able to see how many items are in the shopping cart and add new or deleted items from the cart. Each order should have its own ID and a report showing the date and time the order was created when it will ship updated when it has shipped, and the customer’s name and shipping ID. The diagram deserves a solid diamond due to the fact it emphasizes a strong form of association compared to the standard association line. The solid diamond helps convey that there's a meaningful connection between the classes, and one class is part of another in a more significant way than a simple association.

A process model and an object model serve different purposes and provide distinct views of a system.

A process model is excellent for depicting the sequence of operations in the system. It makes it easier to understand how different components of the system interact with each other. However, process models are typically static and may not capture the ongoing relationships it might not provide a clear representation of the underlying data structure or the relationships between data entities.

An object model is excellent for representing the structure of data entities within the system. Object models can represent the persistent state of objects, helping understand how data is stored.

Both process and object models are often used together to provide a more comprehensive understanding of a system. Together, these models help in understanding not just how the system operates but also how data is structured.

In summary, both models offer valuable insights into different facets of a system, and their combined use provides a more complete understanding of how the system functions and how data is managed.