**Diagram, schematic

Description automatically generatedObject Modeling**

Hamp Crafts is a family-owned craft store that has been in business for decades. Its current operations are limited to its physical (brick-and-mortar) storefront. Recently, the owners have determined that one of the best ways to gain additional revenue is through online sales. You have reassured Hamp Crafts’ owners that adding in an online storefront will work with their current processes. In this assignment, you will review an object model, specifically a UML class diagram for the new online store. You will interpret the diagram and reflect on how well it meets Hamp Crafts’ needs.

**Interpret the object model:**

*What are the different functions of the online storefront?*

* Update Catalog
* Verify login
* Register (new users)
* Login (existing users)
* Update Profile
* Add Cart Item
* Update Quantity
* View Cart Details
* Check Out
* Place Order
* Update Shipping Info
* Calculate Price

*How are they represented in this type of model?*These functions are represented as methods of different classes. E.g. Register, Login, and Update Profile are methods of the Customer class.

*What are the different classes of “users” represented by this object model?*There are Customers and Administrators.

*What are the associations between these classes?*  
The type of association between Customers and Administrators is that they both inherit from the User class. These two classes have a “is-a” relationship with the User class.

*How would the objects “use” their respective variables and functions?*These objects use their respective variables and functions by “is-a” and “part-of” relationships.

*Does this object model capture all of Hamp Crafts’ desired functionality? Why or why not?*No. Going off the provided text, I think the desired functionalities that are not present in this diagram are: notifications to the customers, presence of an order history for customers, alerts to administrators, and management of customer information for administrators.

*What type of aggregation does the solid diamond represent?*  
Composition

*What does it imply about the relationship between the classes?*It implies a “part-of” relationship between these classes. These composition classes do not exist without the first class.

*Why is a solid diamond the appropriate choice here?*The solid diamond is the universally accepted symbol of composition. A user is composed of a set of attributes and two different classes (Cart and Order.) It does not make sense to have an independent Cart or Order with no user, thus the “part-of” relationship makes the most sense.

**Compare the process model and object model:**

*How well do you think a process model describes the system? What information does it make easier to understand? What aspects of the system are more difficult to understand or are not represented?*

I think a process model describes the system well, but in a different way. Process models show the flow of data, which can be extremely confusing if bogged down by other details. Process models make the flow of data simple. Since only the flow of data is represented, basically everything else is more difficult to understand.

*How well do you think an object model describes the system? What information does it make easier to understand? What aspects of the system are more difficult to understand or are not represented?*

The object model also describes the system well. Object models help clarify relationships and interactions. The data flow of the system is more difficult to understand with the object model, though.