**CIDM 4390**

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**Assignment 1**

**Delivery Cart**

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While designing the Delivery Cart project, the team ran into numerous hurtles that had to be overcome to complete the design. As part of the design process, we each individually did a design and then merged the design into one project. There was a lot of discussion on how to proceed and the accompanying paragraphs will discuss what was agreed upon.

One of the first design decision we made was to use inheritance for all of the characters. The base user, ”User” supplies all the characteristics needed for a user. This was done to keep from having to repeat code. There were four other user types that were placed in the design. These were Manager, Shopper, Vendor and Customer. Vendor, Shopper, and Customer the group thought were all a special case of user and should inherit the characteristics of user. They are included in a way that the code could be expanded at a later date with minimal impact on the rest of the code. The class Manager was included as a stub for future feature support. At this time, manager is not used in the code.

Class Order is another design decision, that once implemented, should not need to be changed. The way we envisioned for this to work is that one customer could have many orders. An extension to this is that one order could have many items. We did not include a named shopping cart because that would merely be a view of the customers order. We wanted to separate the view from the base code so that modification would be easier in the future.

We added a class for Billing. The intent of this class is to allow all the user types to get paid for services rendered and received. This class is accessible to all the user type characters and a table stores the billing information. This was done to keep from repeatedly putting payment information for each user type.

We made a decision on the delivery feature for the Delivery Cart project. We made an assumption that the Shopper would also be the delivery person. The rational behind this decision was that the shopper was already handling the items, so, therefore would also be responsible for delivering the items picked. We included information for the Shopper to be able to handle the delivery details.

The Vendor class was arranged so that it inherited information from the user class. This was due to the need to be able to identify vendor information such as what store the items came from. It also allowed us to identify the particular person from that vendor. Sub-classes for Vendor are inventory items and updateQty. The purpose of these classes was for the vendor to adjust quantities for the items listed for sale. The updateQty class will be called to adjust the quantities as items are sold and for the vendor to adjust their quantities on hand.

The Deliver Cart Project was very ambiguous from the outset and the team realizes there will be numerous revisions to what is presented herein this document. We look forward to discussing and presenting a meaningful and viable project.