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CSC 330 – Object Oriented Programming
Project #02 – Newspaper Delivery System
Due Date - 5/4/2019

Design Specification

System:

The goal with the creation of the newspaper delivery system is to allow the delivery service to have a more efficient way of keeping track of their customers, publications and delivery routes. Our system will allow multiple features that will be utilized by the user. It would allow the storage of the complete customer, publication and deliverer lists. From addresses and names to publications and their prices, all the data will be contained within the program to allow easy access to it. A well written, easy to use GUI menu system will be used to implement seamless interaction between the user and the data.

The system architecture will be written in C# and is comprised of various subsystems:

- Household(customer) object : stores the name, address, phone number and current list of subscriptions
- Publication object : stores the name and price of a subscription
- Carrier object : stores the name, address and phone number

System Utilization:

The design of this system is essentially a GUI with buttons and lists allowing you to work with the data directly. Buttons are included to create, modify and delete households, publications and subscriptions that customers will have. After selecting which option in the top list (Choices: Household, Publications, Carriers, Summary), the buttons shown will be relevant to the data you want to manipulate. Within the lists shown will be where the data is located. A selection must be made in these fields to ensure you are changing what you wish to change. For example, a household must be selected in order to add/remove a subscription. Similarly, once in the household section, you will be able to create/remove full households. Subscriptions will be able

to be created/removed. The display will have to be updated with the necessary button as the list will not be updated automatically. To see the most recent information, this button must be used. Lastly, the summary can be displayed with the use of a button. The summary will include all publications, the amount of subscriptions and the current outstanding balance that must be paid.

Classes:

The classes that will be utilized are publication, carrier, and household. The publication class will store a name, price, number of subscriptions and the total amount owed. It will be able to increment subscriptions and amount owed. It will have properties for each private data member and an overridden toString method. The carrier object will store the name, address and phone number of each carrier. It contains properties for each private data member along with an overridden toString method. The household object will be a child object to the parent object carrier. Its private data members include all of carrier's, as well as a full list of publications to store their subscriptions, and a boolean variable to determine if the household is suspended from receiving deliveries. Functions include an ability to add/remove subscriptions from the list, a subscription list search, and an overridden toString method.