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CSC 330

Project 2

**Design Specifications**

For the newspaper delivery system, we will have four classes: Person, Household, Carrier, and Publication. Household will inherit from class Person because a household contains multiple people. Each household contains possibly multiple subscriptions to a newspaper. Carrier allows us to make “deliveries” to the household. Billing generates bills for each household, and it contains payment information.

Class Person will contain private information name, phone number, and address. These are all of type string. Public methods will contain get and set for each private variable. Household will inherit from Person.. There will be a public get() function to retrieve the list of subscriptions. There will be a method to add a new newspaper to the list. There will be a suspend function, which will take in the name, phone number, and movie title. This will briefly suspend a person’s subscription.

The Publication class will contain public data: title, news type, edition, and price. This includes the title of the newspaper (string), news type (string), edition (int), and edition (string). An example would be *Newspaper* X endorsing the *CSC Party of America*. The edition is the special edition of the newspaper, if any if available. A real-life example of the the “Sunday” edition of the SI Advance.

The Carrier class will contain the ID for the carrier, household, and publication. This class will be used to “deliver” the newspaper to the required households. There will also be a quantity (int), that will decrement once a paper has been delivered.

This program will feature a database containing customer information, a list of newspaper, subscription information, and billing information. This database will likely feature 3 – 4 tables. In Visual Studio, these namespaces will be utilized: MySql.Data.MySqlClient and System.Web.Configuration. The database will run using MySql server. This will be integrated into VS using the MySql reference. In addition, Sql code will be run in order to access and manipulate data.  
 Inside the database, there will be four tables: households, carriers, publications, usernames. Households will contain columns: idhouseholds, firstName, lastName, pNumber, streetName, houseNumber, aptNum, postal, subStatus. Carriers will contain: idcarriers, idhouseholds, idpublications, dayDeliver and price. Publications will contain idpublications, title, newsType, edition, and price.

**Code**:

**Class Person**

class Person

{

protected string firstName;

protected string lastName;

protected string pNumber;

protected string streetName;

protected int streetNumber;

protected string aptNumber;

protected int postalCode;

protected string city;

protected string state;

public string FirstName { get; set; }

public string LastName { get; set; }

public string PNumber { get; set; }

public string StreetName { get; set; }

public int StreetNumber { get; set; }

public string AptNumber { get; set; }

public int PostalCode { get; set; }

public string City { get; set; }

public string State { get; set; }

public abstract void update(int ID, int idH, int idP);

**class Household**

private bool subStatus;

public bool SubStatus

{

get { return subStatus; }

set { subStatus = value; }

}

public override void update(int ID, int idH, int idP)

{

throw new NotImplementedException();

}

}

**Class Carrier**

class Carrier : Person

{

private int idcarriers;

private int idhouseholds;

private int idpublications;

public int Idcarriers

{

get { return idcarriers; }

set { idcarriers = value; }

}

public int Idhouseholds

{

get { return idhouseholds; }

set { idhouseholds = value; }

}

public int Idpublications

{

get { return idpublications; }

set { idpublications = value; }

}

public override void update(int ID, int idH, int idP);

}

**Class Publication**

class Publication

{

private string title;

private char newsType;

private string edition;

private double price;

public string Title

{

get { return title; }

set { title = value; }

}

public char NewsType

{

get { return newsType; }

set { newsType = value; }

}

public string Edition

{

get { return edition; }

set { edition = value; }

}

public double Price

{

get { return price; }

set { price = value; }

}

}