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/*
    Problem 4:      DME Customer class for creating
                   customer objects
    Programmer:    Wayne Spence
    Date:          September 16, 2003
    Program Name:  DME4Customer
*/
import javax.swing.*;

public class DME4Customer
{
    //Declare instance variables
    private String customerNameString;
    private String customerTypeString;
    private int customerNumber;
    private int serviceType;
    private int meterReadingDay;
    private int meterReadingMonth;
    private int meterReadingYear;
    private int kilowattHours;

    private String outputLine = "";
    public static final String DME_PANE_TITLE = "Denton Municipal Utilities";

    public DME4Customer()
    {
        //Initialize instance variables
        customerNameString = "";
        customerTypeString = "R";
        customerNumber= 0;
        serviceType= 1;
        meterReadingDay = 10;
        meterReadingMonth = 9;
        meterReadingYear = 2003;
        kilowattHours = 0;
    }
}
```

```
public void setCustomerNumber()
{
    customerNumber = promptUser("customer number", customerNumber, 1, 99999);
}

public void setCustomerName()
{
    customerNameString = promptUser ("customer name", customerNameString);
}

public void setCustomerType()
{
    customerTypeString = promptUser ("customer type (R, C or G)", "R");
}

public void setServiceType()
{
    serviceType = promptUser ("service type (1 or 2)", serviceType, 1, 2);
}

public void setMeterReadingDay()
{
    meterReadingDay = promptUser ("meter reading day", meterReadingDay, 1, 31);
}

public void setMeterReadingMonth()
{
    meterReadingMonth = promptUser ("meter reading month", meterReadingMonth, 1, 12);
}

public void setMeterReadingYear()
{
    meterReadingYear = promptUser ("meter reading year", meterReadingYear, 2000, 2003);
}

public void setKilowattHours()
{
    kilowattHours = promptUser ("kilowatt hours usage (KWH)", kilowattHours, 1, 99999);
}
```

```
public int getCustomerNumber()
{
    return customerNumber;
}
public String getCustomerName()
{
    return customerNameString;
}

public String getCustomerType()
{
    return customerTypeString;
}

public int getServiceType()
{
    return serviceType;
}

public int getMeterReadingDay()
{
    return meterReadingDay;
}

public int getMeterReadingMonth()
{
    return meterReadingMonth;
}

public int getMeterReadingYear()
{
    return meterReadingYear;
}

public int getKilowattHours()
{
    return kilowattHours;
}
```

```
private static int promptUser (String userPrompt, int initialValue, int minValue, int maxValue)
{
    boolean goodData = false;
    String outputLine = "";
    String initialValueString = Integer.toString(initialValue);
    int intNumber = 0;

    while (!goodData)
    {
        String intNumberString =
            JOptionPane.showInputDialog(null, "What is the " + userPrompt + "?", initialValueString);
        try
        {
            intNumber = Integer.parseInt(intNumberString);
            if (intNumber < minValue || intNumber > maxValue)
            {
                outputLine = "The " + userPrompt + " should be between " +
                    minValue + " and " + maxValue + ".";
                displayMessage(outputLine);
            }
            else
                goodData = true;
        }
        catch (NumberFormatException e)
        {
            outputLine = "You have not entered digits for the " + userPrompt + ".";
            displayMessage(outputLine);
        }
    }
    return intNumber;
}
```

```
private static String promptUser (String userPrompt, String initialValue)
{
    boolean goodData = false;
    String outputLine = "";
    String stringData = "";
    while (!goodData)
    {
        stringData =
            JOptionPane.showInputDialog(null, "What is the " + userPrompt + "?",
            initialValue);
        goodData = true;
    }
    return stringData;
}
```

```
private static void displayMessage (String messageText)
{
    String errorTitle = "An error has occurred";
    messageText = messageText + "\nPlease, try again!";

    JOptionPane.showMessageDialog(null, messageText, errorTitle,
        JOptionPane.ERROR_MESSAGE);
}
```

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}
```