IST 256
Assignment 3
CUSTOMER SALES REPORTS
Assignment 3 due April 20, at the beginning of class

In this application, there is an input file of customer sales data and the program must read in the file and prepare two reports: one report is displayed on the form and the other report is written to an output file.

The form for this application will allow the user to type in the name of both the input and output files. (While you are developing the program, you may want to disable this part to avoid typing in file names every time, but it is essential that the final version of the program allow the user to type in the input and output file names for grading purposes. That is, we are going to run your program on an input file that we have prepared.) The form needs
- one button to perform the computation,
- three multiline labels or textboxes to display customers as described below,
- two more labels to display the number of male and female customers, and
- a close button.

The input file will have one customer's data on each line, consisting of the customer name, the gender as a single character either M or F, the number of years as a customer, and the sales bought so far this year. The format of each line will be like the following example

Jessie Jones, F, 3, 256.84

To test your application, make up an input file that has about 9-10 customers. Please make sure that you have several people that fit each of the three categories for number of years, and for people who get different types of discounts.

The button procedure should get the input and output file names from textboxes and should give an alert if there are not two file names given.

The program then reads data from the input file and while it is doing so, it will:
- Read all the customer data items on one line
- Prepare three Strings that will be displayed in the three labels or textboxes, and
- Save the employee name in one array and save their sales in another
- Add up the number of male and female employees

The data displayed in the customer part of the form should have names and their sales of people with at least 5 years as a customer to one multiline label or text box, with 2 to 4 years in another label or text box, and with fewer than 2 years to a third label or text box.

The number of male and female customers should also be displayed.

The output file will give a report on sales for each customer calculated from the data in the arrays, and an indication of whether they are eligible for future discounts. The discount level should be either Regular, Silver or Gold, depending on whether the sales are less than $200.00, between $200.00 and $400.00, or greater than $400.

The report in the output file should be defined as follows:
- There should be a first line that gives the name of the report
- The next line should report the total amount of sales for all customers, formatted as currency
- Skip two lines
- Give a line of data for each employee consisting of
  - The employee name with the names reversed from *First Name Last Name* to *Last Name, First Name*.
  - The sales for that employee, starting in column 25, formatted as currency
  - The discount level

An example line in the output file would be:

Jones, Jessie $256.84   Silver

GRADING

All programs should have comments that contain the name of the programmer and that explain the entire program and the role of each procedure, including buttons. Additional comments must be added as necessary to explain the actions of the program. The form must have a Close button.

The following additional items will be included in the grading

- allow the user to specify file names and check for missing file names
- read in the data properly from the input file
- display the three different categories of customers
- compute the number of males and females and display them
- save customer names and sales into two arrays
- compute the overall sales and write into the output file
- correctly format each line of the output file, including reversing the names, aligning the columns and awarding discounts based on the sales