

IST 256
Assignment 3
CUSTOMER SALES REPORTS
Assignment 3 due Thursday, November 17 by 5pm

In this application, we will assume that there is a company with a list of customers and their sales information. We will write a program to read in the customer list from a file and prepare two reports: one report is displayed on the form and the other report is written to an output file.

This application will allow the user to select both the input and output files. While you are preparing the program, you will supply these files, but during the grading, we will run your program on our own test files. (While you're testing your program, you may want to read and write to specific files, but before you turn in your program, you must add a FileChooser for the input and output files.)

The form needs

- one button to read the file and display information to the form,
- two multiline labels or textboxes to display customers as described below,
- two more labels to display the number of male and female customers
- and a button to save the customer report to a file and a file status label

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 of items bought so far this year. The format of each line will be like the following example

Jessie Jones, F, 3, 1052.84

To test your application, make up an input file that has about 9-10 customers. Please make sure that you have several customers that are 3 years or above and several below, and that there are both genders represented. Your program should work correctly for up to 20 customers in the input file.

Your program should have a data class to store each customer with fields matching each item in the file and with methods as needed for the rest of the program.

The first button method should use a FileChooser, with `showOpenDialog`, for the user to select an input file. The method then reads data from the input file, reading all the donor data items on a line, saving the data into an array of Customers, and (possibly) processing the data to prepare for the displays of the first button.

Finally, the button should display customer data on the form. There is one multiline label or textarea for customers who have made purchases for under 3 years and one for customers of 3 years or more. Each donor should be listed under the appropriate label with the amount of their sales so far this year.

The remaining two labels should show the total numbers of female and male customers.

The second button will have a FileChooser, with showSaveDialog for the user to select an output file.

The output file will give a report showing which customers are eligible for a promotion if they are returning customers, i.e. the number of years is greater than 1, and sales so far is less than 2000.

- There should be a first line that gives the name of the report
- The next line should report the grand total of all sales so far for all customers (formatted as currency)
- Skip two lines
- Give a line of data for each customer consisting of
 - The customer name
 - The sales so far for that customer (formatted as currency)
 - Write the message “eligible” if the number of years is > 1 , and the sales so far is less than 2000.

An example line in the output file would be:

Jesse Jones \$1,052.84 Eligible

GRADING

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

The following additional items will be included in the grading

- allow the user to choose the input and output files
- read in the data properly from the input file
- have a Customer class to save each customer’s information
- save customers into an array
- display the two different types of customers with their sales
- add up the numbers of male and female customers and display them
- compute the overall grand total sales and write into the output file
- correctly format each line of the output file with the name, sales for that customer and if they are “eligible” for the promotion
- sales amounts formatted as currency

Zip your entire NetBeans project folder and submit it to the Blackboard assignment page.