IST 256
Assignment 3
DONOR REPORTS
Assignment 3 due Friday, April 19 by 5pm

In this application, we will assume that there is a charitable organization with a list of donors that have given donations over the past four years, and that we will write a program to read in the donor 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.

The form for 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 files.

The form needs
- one button to read the file and display information to the form,
- two multiline labels or textboxes to display donors as described below,
- two more labels to display donation fund totals,
- and a button to save the donor report to a file and a file status label

Each donor is listed with a donor type, which is either an individual donor, marked as "Individual", or a corporate donor, marked as "Corporate". Each donor has also chosen whether their donations go to the endowment of the charity, marked "Endowment", or to the emergency funds "Emergency". The input file will have one donor's data on each line. The description of the donor will include the donor name, the donor type, the funds type, and the past four years of donations. The format of each line will be like the following two examples
> Jessie Jones,Individual,Emergency,500,400,150,0
> JP Morgan Chase,Corporate,Endowment,1500,4000,7500,3000

To test your application, make up an input file that has about 9-10 donors. Please make sure that you have several donors in both the donor types and fund types, and that there are several who have given an amount of 0 in the last year. Your program should work correctly for up to 20 donors in the input file.

Your program should have a data class to store each donor 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 Donors, and (possibly) processing the data to prepare for the displays of the first button.

Finally, the button should display donor data on the form. There is one multiline label or textarea for individual donors and one for corporate donors. Each donor should be listed under the appropriate label with the total amount of their donations over the past 4 years.

The remaining two labels should show the total of all donations going into the endowment funds and the total going into the operating funds.

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

The output file will give a report on total donations and on active or inactive donors, calculated from the data in the array.

- There should be a first line that gives the name of the report
- The next line should report the grand total of donations for all donors (formatted as currency)
- Skip two lines
- Give a line of data for each donor consisting of
  - The donor name
  - The total donations for that donor (formatted as currency)
  - Print the message "active" if the donor made a donation in the last year, but "inactive" if their last donation was 0.

An example line in the output file would be:
Jesse Jones $1,050   Inactive

Or if there were a donation greater than 0 in the last year, it would say
Jason Jackson $16,000   Active

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 Donor class to save each donor's information
- save donors into an array
- display the two different types of donors with their total donations
- add up the donations for the endowment funds and the operating funds and display them
- compute the overall grand total donations and write into the output file
- correctly format each line of the output file with the name, total donations for that donor and whether they are "active" or not
- donation amounts formatted as currency

Zip your entire NetBeans project folder and submit it to the iLMS assignment dropbox.