Assignment 8: NY State **Baby Names Application**

Objective:
In this assignment, students will develop a Java program using object-oriented principles. You will create three Java classes: BabyDriver, BabyGUI, and Baby. The application will allow users to search for baby names based on birth gender using a GUI interface. The data source for the baby names will be a text file, available on Schoology.

Class Requirements

1. **BabyDriver**
   This class serves as the main driver for the program. It will be responsible for:
   - Creating instances of the Baby objects.
   - Launching the BabyGUI interface.
   - Handling program logic such as loading the baby names data from the text file.
2. **BabyGUI**
   This class will create a graphical user interface (GUI) that allows the user to:
   - Input a baby name to search.
   - Choose the birth gender (male/female).
   - Display the results from the search, showing baby names that match the given gender.
   - Use buttons to trigger actions like"Split File" "Search" and "Sort Table."
3. **Components Required**:
   - **Text field** for user input of baby name.
   - **Dropdown menu** or **radio buttons** to select birth gender.
   - **Button** to initiate the search and display results.
   - **Table** for displaying the search results.
4. **Baby**
   This class will define the baby object, containing:
   - **Attributes**: name, gender, and amount of times the name occured (e.g., year, popularity rank).
   - **Constructor** to initialize these attributes.
   - **Getters and Setters** for accessing/modifying the attributes.

Steps to Complete

1. **Create the Baby class**
   - Define the baby attributes (e.g., name, gender, amount of occurances).
   - Create appropriate constructors, getters, and setters.
2. **Build the BabyGUI class**
   - Use JFrame, JTextField, JButton, JLabel, JTable, and other Swing components to create the interface.
   - Ensure that the GUI allows the user to input a baby name and select the gender to search.
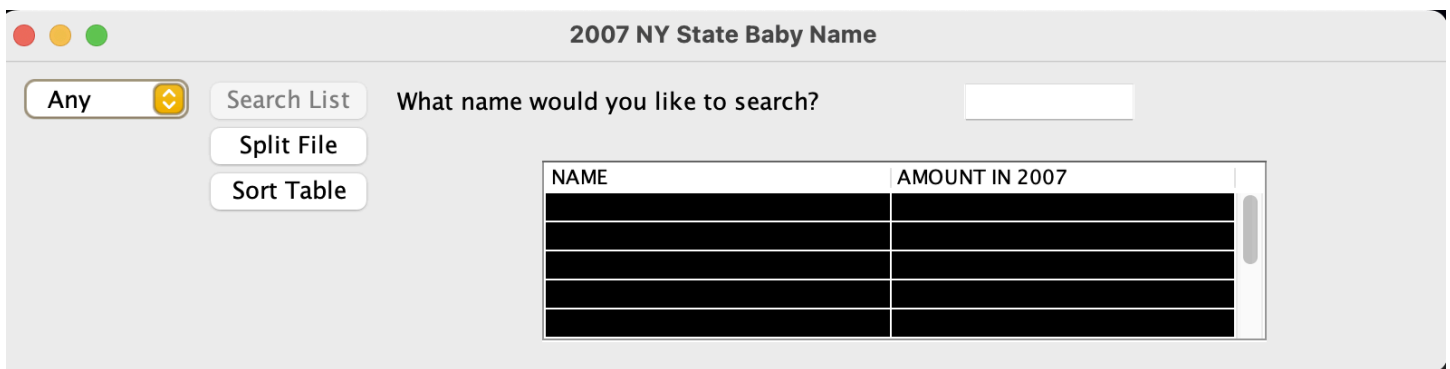   - Implement the search function to find the baby names in the text file and display them.
3. **Implement the BabyDriver class**
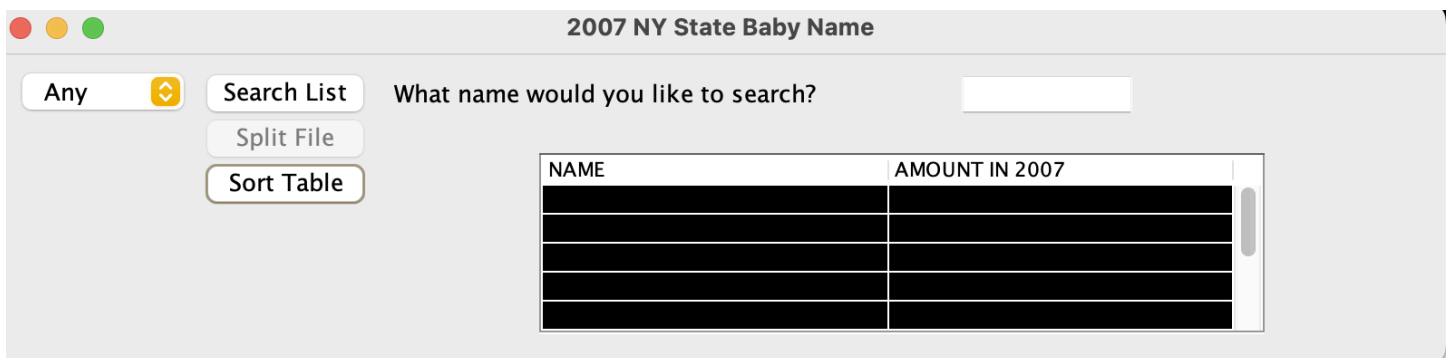   - Load the baby names from a text file found in Schoology into an array or list of Baby objects.

- Use BabyGUI to interface with the user.
- Ensure proper interaction between BabyGUI and the baby names list to display correct results.

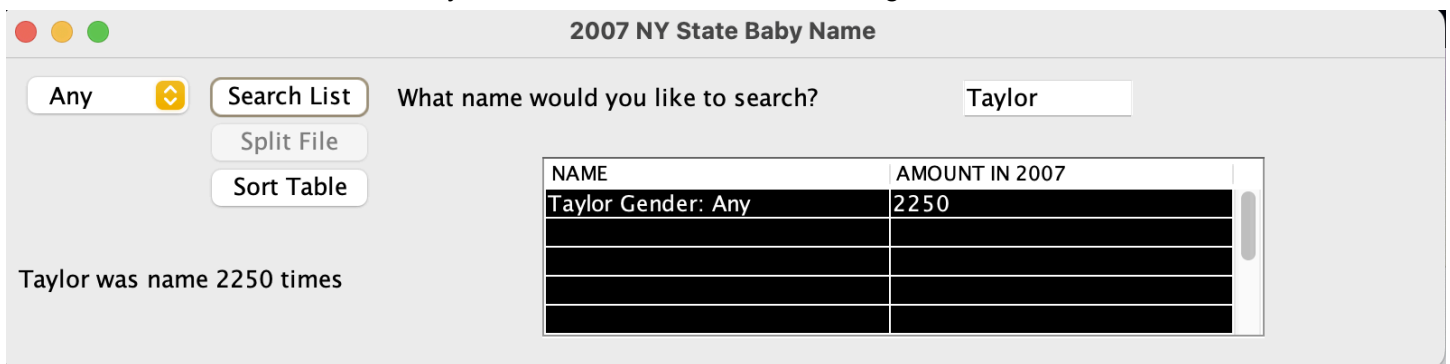## Submission Requirements

- Copy the files to the end of this document:
    - **Baby.java**
    - **BabyGUI.java**
    - **BabyDriver.java**
- Ensure that your program is properly documented, with clear comments explaining the purpose of each method and class.
- **Due Date**: Oct 23, 2024

Clicked "Split File" which turned the txt file into an arraylist of objects.

Final GUI: Search for the name Taylor and Aaron with different birth genders.

2007 NY State Baby Name

Male ⇅ | Search List | What name would you like to search?   Taylor

Split File

Sort Table

NAME	AMOUNT IN 2007
Taylor Gender: Any	2250
Taylor Gender: Female	2228

Taylor was name 2228 times

2007 NY State Baby Name

Any
✓ Female
Male

Search List | What name would you like to search?   Aaron

Split File

Sort Table

NAME	AMOUNT IN 2007
Taylor Gender: Any	2250
Taylor Gender: Female	2228
Taylor Gender: Male	22
Aaron Gender: Male	6390
Aaron Gender: Female	0

Aaron was name 0 times