

# **CMSY 156 - Lab 7**

## **Files and Lists**

### **(50 points)**

**Please submit .py files and Screenshots**

### **Problem: Baby Name Sort**

Please make sure you download the FemaleNames.txt & MaleNames.txt files from Canvas and place them in the same folder as your program:

- FemaleNames.txt -- This file contains a list of the 200 most popular names given to female babies born in the United States from the year 2000 through 2009.
  - MaleNames.txt -- This file contains a list of the 200 most popular names given to male babies born in the United States from the year 2000 through 2009.
1. Write a program that reads the contents of the two files into a single list.
    - a. Use try/except to open and process each file.
    - b. Each line in each file is one name.
    - c. Each name should be a separate element in the list.
    - d. Remove the newlines from each name before storing them in the appropriate list.
  2. Sort the list.
  3. Display each name in the sorted list.
  4. Write the names in the list to three separate files (one name per line) based on the first letter of the name. You may process all three files at the same time, or one at a time. Python allows you to have multiple files open at the same time.
    - a. Output names beginning with A-I to babyNamesAtoI.txt
    - b. Output names beginning with J-R to babyNamesJtoR.txt
    - c. Output names beginning with S-Z to babyNameStoZ.txt
    - d. You must close the files when they are complete.

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Rubric:

Source code documented using comments (5)

Correct use of try/except to open files (5)

File data read into list correctly (5)

- One name per list element
- Newlines removed

List Sorted (5)

Sorted names displayed (3)

Three output files created with the correct names in each file (7)

- babyNamesAtoI.txt
- babyNamesJtoR.txt
- babyNamesStoZ.txt

Correct formatting of file output (5)

- One name per line in each file

All output files closed (5)

Source code has adequate white space/readability (3)

Program screenshots submitted (2)

Program executes without error (5)