CS 173

Homework 7
A Data Analytics Application on Name Popularity

Goals

- Design an efficient algorithm to find data in the files.
- Read and write data in desired format in C++

Overview

In this project, you will design and implement an application for analyzing ten-years name popularity between the years 2001 and 2010 stored in files named babynamesranking2001.txt, babynamesranking2002.txt, ..., and babynamesranking2010.txt. Each file contains one thousand lines. Each line contains a ranking, a boy's name, number for the boy's name, a girl's name, and the number for the girl's name. To get more information about name popularity, you can visit www.ssa.gov/oact/babynames.

Due Date: April 13th 2020, at 23:00 pm. Submit your source files with all .txt files to the Notebowl.

Details

Your program presents to users two options.

In the first option, the user can search the rank of a specific name. You will write a program that prompts the user to enter the year, gender, followed by a name, and displays the ranking and count of the name for the year. Your program should not be case sensitive while searching the name in the file

```
Enter a name: Ashley
Enter a gender: F
Enter a year-interval from: 2001
                        to: 2003
****************************************
Ranking result for Ashley between 2001 and 2003
2001: #4.   16522
2002: #6.   15335
2003: #8    14506
Total : 46,363 people have Ashley name.
```

In the second option, your program displays the most popular three girl and boy names starting with a letter.

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Enter a letter to see most popular three names starts with : j
Enter a year: 2010

Girls:
#1 Julia
#2 Jasmine
#3 Jocelyn

Boys:
1 Jacob
#2 Jayden
#3 Joshua

You will present all these options to users under a menu as below.

Data Analytic Application on Name Popularity

Choose one of the options…
1. Ranking of the name for the year
2. Display the most popular three names starting with a letter
3. Exit
Enter an option number>>

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Option 1: 35p , Option2: 35p, Menu:5p
Testing: 25 p (case sensitivity, run for non-existing data, testing all variation of input data as shown in the report)