

CS 173

Project 1 - Data Analytic Application on Name Popularity

Overview

You can access the name popularity ranking information from www.ssa.gov/oact/babynames. In this project, you will analyze ten-years name popularity 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.

Due Date: March 1, 2019, at 23:00 pm. Submit your source files with all .txt files on notebowl.

This is a group of two students project.

Details

Your program presents to users at least three 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, the user enters a year and program displays and save the names that are used for both genders in that year in `commonname#year#.txt` with the following format.

Enter a year for finding common names: 2001

69 names are used for both boys and girls

Tyler Ryan Christian Logan Cameron Hunter

Gabriel	Jordan	Angel	Alex	Devin	Dakota
Carson	Riley	Jaden	Hayden	Parker	Jayden
Alexis	Devon	Taylor	Peyton	Micah	Chandler
Ashton	Drew	Casey	Skyler	Avery	Jaime
Payton	Bailey	Quinn	Morgan	Skylar	Justice
Reese	Jessie	Kendall	Harley	Jaiden	Jaylin
Jamie	Addison	Ariel	Sage	Dominique	Devyn
Sidney	Amari	Armani	Baby	Reagan	Guadalupe
Shannon	Reilly	Shea	Kennedy	London	Jadyn
Raven	Courtney	Kelly	Kasey	Mackenzie	Jordyn
Aubrey	Jade	Rylee			

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

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

(Optional) For extra points, you can add the fourth option to your program. You can get maximum +25 points based on the level of your option's complexity.

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. Displays the names that are used for both genders
3. Display the most popular three names starting with a letter
4. Additional option
5. Exit

Enter an option number>>

Grading

Option 1: 25p , Option2: 25p, Option3: 20p Menu:5p

Program style: 10p (split program into the functions, no unnecessary repeating block, comments, readability)

Testing: 15 p (case sensitivity, run for non-existing data, testing all variation of input data)