Edward Kuisseu Tatchim

Computer Science 1-INT 2210

Lab Assignment #4

Dr. Homer Sharafi

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**Solution to Lab Assignment #4.**

I have named this program, *PopularNames.* I called it popular names in order to easily translate the idea of the entire program. This program takes input from the user and determines based on some common names in the array list, if the array list contains the input string from the user.

For my program to effectively do all this, I came up with the idea of creating 2 distinctively separate array lists to store male and female names. I then used the file and scanner classes to copy the content of BoyNames.txt and GirlNames.txt into my set instance variables.

I then proceeded to ask the user to type in a name. Based on his entry, I wrote a loop to iterate if the instance variables had another value to add to the array lists. Furthermore, the array lists will be searched for string names that are identical to the user’s popular guess. A message is then displayed depending on if the input name is equal to what is contained in the array lists.

**Input Data:** BoyNames and GirlNames files input from already created .txt files.

**Processing Data:** The processing is done automatically based on the functionality of the lines of code that I typed.

**Output Data:** My code determines if the user’s input is also in one of my array lists or not.

***Popular Names* Program(written in Java)**:

**package Lab4;**

**/\***

**\* This program was written by Edward Tatchim on 11/05/2018**

**\* the goal of the program is to search 2 seperate arrays for names commmon in the early 2000s based on the input from the user.**

**\*/**

**import java.util.ArrayList;**

**import java.util.Scanner;**

**import javax.swing.JOptionPane;**

**import java.io.\*;**

**public class PopularNames {**

**public static void main(String[] args) throws Exception {**

**ArrayList<String> boyNames=new ArrayList<String>();//created array list 1**

**ArrayList<String> girlNames=new ArrayList<String>();//created array list 2**

**File boys=new File("C:\\CodeStore\\Professor Sharafi\\src\\Lab4\\BoyNames.txt"); //accessed the boy names file in the path location**

**Scanner br = new Scanner(new FileReader(boys));// wrote the content of boys file into the br variable**

**//Scanner br = new Scanner(boys);**

**File girls=new File("C:\\CodeStore\\Professor Sharafi\\src\\Lab4\\GirlNames.txt");//accessed the girl names file in the path location**

**//Scanner gr=new Scanner(girls);**

**Scanner gr = new Scanner(new FileReader(girls));//writes the content of the girl file into the gr variable**

**while (br.hasNext()) { //loop states that as long as the br variable contains a next value, continue adding these values to the arraylist**

**boyNames.add(br.next());**

**}**

**br.close();//closes scanner object when done**

**while (gr.hasNext()) { //loop states that as long as the br variable contains a next value, continue adding these values to the arraylist**

**girlNames.add(gr.next());**

**}**

**gr.close(); //closes the scanner object when done.**

**//System.out.println(gr.nextLine());**

**Scanner keyboard = new Scanner(System.in); //creates another instance of the scanner method to hold input from our users.**

**String popularGuess;**

**System.out.println("Dear user please enter a popular name of your choice");**

**popularGuess=keyboard.nextLine(); //copies the content of the keyboard variable onto the popular guess variable**

**int girlIndex = girlNames.indexOf(popularGuess); //declares a variable to take account of the number of index locations occupied by tthe other array elements**

**if(girlNames.contains(popularGuess)){ // determines if the user input matches any array element or not.**

**System.out.println(popularGuess + " was found, and was ranked " + (girlIndex + 1) + " by popularity.");**

**}**

**else {**

**System.out.println(popularGuess + " was not found in the list of 200 most popular girl names.");**

**}**

**int boyIndex = boyNames.indexOf(popularGuess); //declares a variable to take account of the number of index locations occupied by tthe other array elements**

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**}**

**else {**

**System.out.println(popularGuess + " was not found in the list of 200 most popular boy names.");**

**}**

}

}