ICS Problem Set 3

# **Exercise 1 - Name Search (1 points)**

You have two text files:

• **GirlNames.txt**—This file contains a list of the 200 most popular names given to girls

born in the United States from the year 2000 through 2009.

• **BoyNames.txt**—This file contains a list of the 200 most popular names given to boys

born in the United States from the year 2000 through 2009.

Write a program that reads the contents of the two files into two separate lists. The user

should be able to enter a boy’s name, a girl’s name, or both, and the application will display messages indicating whether the names were among the most popular.

# **Exercise 2 -World Series Champions (2 points)**

You have a text file **WorldSeriesWinners.txt**. This file contains a chronological list of the World Series winning teams from 1903 through 2009. (The first line in the file is the name of the team that won in 1903, and the last line is the name of the team that won in 2009. Note that the World Series was not played in 1904 or 1994.)

Write a program that lets the user enter the name of a team and then displays the number of times that team has won the World Series in the time period from 1903 through 2009.

*HINT:* *Read the contents of the* ***WorldSeriesWinners.txt*** *file into a list. When the user*

*enters the name of a team, the program should step through the list, counting the number of times the selected team appears.*

## **Exercise 3 – Employee Class (1 point)**

Write a class named Employee that holds the following data about an employee in attributes: name, ID number, department, and job title.

Once you have written the class, write a program that creates three Employee objects to hold the following data:

|  |  |  |  |
| --- | --- | --- | --- |
| Name | ID Number | Department | Job Title |
| Susan Meyers | 47899 | Accounting | Vice President |
| Mark Jones | 39119 | IT | Programmer |
| Joy Rogers | 81774 | Manufacturing | Engineer |

The program should store this data in the three objects and then display the data for each employee on the screen.

**Exercise 4 – Employee Management System (2 points)**

**please use the start code given**

This exercise assumes that you have created the Employee class for Exercise 4. Create a program that stores Employee objects in a dictionary; use the employee ID number as the key. The program should present a menu that lets the user perform the following actions:

● Look up an employee in the dictionary

● Add a new employee to the dictionary

● Change an existing employee’s name, department, and the job title in the dictionary

● Delete an employee from the dictionary

● Quit the program

When the program ends, it should save the dictionary and save it to a file (named emp\_database.txt). Each time the program starts, it should try to load the emp\_database.txt and convert the records in the file into a dictionary. If the file does not exist, the program should start with an empty dictionary.

The records saved in the emp\_database.txt should in the format as follows:

ID\_Number1, Name1, Department1, Job\_Title1  
ID\_Number2, Name2, Department2, Job\_Title2

that is, each item is separated by a comma “,”, and every record occupies a line (see the following example).

