Member ID: _____

Time: _____

Rank: _____

BUSINESS PROFESSIONALS of AMERICA
Giving Purpose to Potential

PYTHON PROGRAMMING-PILOT (355)

STATE – 2022

PRODUCTION PORTION:

Program 1: World Series Dictionary _____ (340 points)

TOTAL POINTS _____ *(340 points)*

Test Time: 90 minutes

GENERAL GUIDELINES:

Failure to adhere to any of the following rules will result in disqualification:

1. Member must hand in this test booklet and all printouts if any. Failure to do so will result in disqualification.
2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests (handwritten, photocopied, or keyed) are allowed in the testing area.
3. Electronic devices will be monitored according to ACT standards.

You will have ninety (90) minutes to complete your work.

Your name and/or school name should *not* appear on work you submit for scoring.

1. Create a folder on the flash drive provided using your Member ID as the name of the folder.
2. Copy your entire solution/project into this folder.
3. Submit your entire solution/project so that the graders may open your project to review the source code.
4. Ensure that the files required to run your program are present and will execute on the flash drive provided.

   *Note that the flash drive letter may *not* be the same when the program is scored as it was when you created the program.

   *It is recommended that you use relative paths rather than absolute paths to ensure that the program will run regardless of the flash drive letter.

   The graders will *not* compile or alter your source code to correct for this.
   Submissions that do *not* contain source code will *not* be scored.

Assumptions to make when taking this assessment:

- The user will *not* enter invalid input.
- The input file will only contain valid input strings that only contain upper- and lower-case letters.

Development Standards:

- Your Code must use a consistent variable naming convention.
- All functions (if any) must be documented with comments explaining the purpose of the method, the input parameters (if any), and the output (if any).
- If you create a class, then you must document the class and its methods.

World Series Dictionary

Write a program that reads in the file, WorldSeriesWinners.txt, and creates two dictionaries. The first dictionary, named "Teams", has keys that are the names of the teams and each key's associated value is the number of times the team has won the World Series. The second dictionary, named "Years", has keys that are the years and each key's associated value is the name of the team that won that year.

The file, WorldSeriesWinners.txt, contains the chronological list of the World Series' winning teams from 1903 through 2021. 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 2021. (NOTE: The World Series was not played in 1904 or 1994, so you must account for this in the program source code.

The program should prompt the user for a year in the range of 1903 to 2021. It should then display the name of the team that won the World Series that year, and the number of times that team has won the World Series.

Requirements:

1. You must create an application called WorldSeriesDictionary.
2. Your program must read the file "WorldSeriesDictionary.txt".
3. Your program must load the data from the file into a dictionary named "Teams" in which the keys are the names of the teams, and each key's associated value is the number of times the team has won the World Series.
4. Your program must load the data from the file into a second dictionary named "Years" where each key's associated value is the name of the team that won that year.
5. Your program must prompt the user to enter a year between 1903 and 2021.
6. Your program must notify the user that the World Series did not have a winner in 1904 or 1994.
7. Your program must display the name of the team that won the World Series in the year entered by the user.
8. Your program must display the number of times that team has won the World Series.
9. Your Member ID must appear as a comment at the top of the main source code file.
10. Your program must be commented appropriately.

Values to Test
Input: 1984
Output: Detroit Tigers. They won the World Series 4 times.

Input Test: 2025
Output: Year out of range, please enter a year between 1903 and 2021.

Input: 1904
Output: The World Series was not held in 1904.

Solution and Project

The project is present on the flash drive	_____	10 points
The project is named WorldSeriesDictionary	_____	10 points

Program Execution

The program runs/compiles from the USB flash drive	_____	10 points

If the program does not execute, then the remaining items in this section receive a score of zero.

The program reads the data in the file named "WorldSeriesWinners.txt"	_____	10 points
The program prompts the user for a specific year between 1903 - 2021.	_____	10 points
The program calculates the number of times each team won the World Series.	_____	20 points
The program properly handles years less than 1903 and greater than 2021.	_____	10 points
The program properly handles the years 1903 and 1994.	_____	10 points
The program properly displays the World Series winning team based on user input.	_____	20 points
The program properly displays the numbers of times the team won based on user input.	_____	20 points

Source Code Review

A comment containing the Member ID is present	_____	10 points
Functions and code sections are commented	_____	30 points
Code is present to prompt the user for a year between 1903 and 2021.	_____	10 points
Code is present to read the data in the file named "WorldSeriesWinner.txt".	_____	20 points
Code is present to store the teams in the dictionary named "Teams".	_____	40 points
Code is present to store the years in the dictionary named "Years".	_____	40 points
Code is present to calculate the number of times each team won the World Series.	_____	20 points
Code is present to display the correct team and number of times the team won based on user input.	_____	20 points
All files are opened and closed properly	_____	10 points
Code uses a consistent variable naming convention	_____	10 points

Total Points =____ / 340 points