Overview of Assignment 1

Assignment 1 involves creating a Python script to read through a badly-wrangled set of data on people from a .csv file and clean it up, converting the data into a dictionary of Person objects which store first names, last names, middle initials, IDs, and phone numbers. The program also demonstrates the pickle library by saving the dictionary of Persons to a persons.p file and retrieving it.

To run the program, Python must be installed (ideally a version such as 3.7 or later). The program takes a .csv file as input, which should have a first row of column headers and data for all subsequent rows because the program currently throws out the first row. Each line should be five comma-separated values for last name, first name, middle initial, ID, and phone number. Either the command `python asg1.py inputfile.csv` or `py asg1.py inputfile.csv` can be used in a terminal to run the program, where inputfile.csv is the path to the csv containing the Person data.

Due to Python's extensive and easily accessible string manipulation methods and libraries, I think it is a very strong language for text processing. For example, built-in functions like .trim() or .upper() and libraries like re (for regex) make working with text in Python very straightforward. However, it's not too hard to imagine scenarios where text processing could be made confusing by Python's dynamic typing, which could be considered a weakness. That is, where other languages would warn about type mismatches immediately, Python is much more flexible and may allow a mismatch to go unnoticed by a developer for a longer period of time, which could cause bugs.

This assignment helped to review some concepts for me. For example, the string processing function strip() removes newlines as well as whitespace. Given that I mainly code in Java occupationally, this assignment was a refresher on file access and regex as well.