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CS 4395.001
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Portfolio Assignment 1

Describe what the program does:

The program reads text from an employee file in order to parse and process the text. The first step is for the program to break up the text into sentences and process each sentence separately, leaving out the first line because it only describes the formatting of the data or heading and does not describe a particular person. We capitalize the first and last names, capitalize the middle initial and check if the middle initial is available, if not substitute it with "X", check the id if it contains two letters and four digits, check the phone number has the pattern 123-456-7890 and delimit the sentences for each person with a comma. We then process each characteristic of that person to meet the requirements that have been provided. The program then populates the dictionary with each individual object, with the individual's id serving as the key. Finally, the program saves the dictionary as a pickle file, opens and reads the pickle file, and uses the person class's display function to show all of the person objects in the dictionary.

Explain how to run it

In order to run this program, using the terminal

```
python3 portfolio1_mmc210007.py <relative_location_of_the_file>  
                                for my file type  
python3 portfolio1_mmc210007.py data/data.csv
```

Write a couple of sentences describing the strengths/weaknesses of Python for text processing, in your opinion

Python's powerful libraries and tools, as well as its easy-to-understand syntax, make it an excellent choice for text processing. However, given that it is slower than other languages, it might not be the best option for projects involving extremely large amounts of text processing.

Write a couple of sentences describing what you learned in this assignment, or what was a review for you

Since this is my first Python program, I have gained a deeper comprehension of the programming language's syntax. I also learned how to use regular expressions. At first, I thought the program needed to change the phone number from its current format to the desired 123-456-7890 format. However, as I got more familiar with regular expressions and learned how grouping works in regex, I realized that the program was not doing that. In addition, I gained knowledge of how to output to a user and receive user input. Lastly, I learned how to read from a pickle file in Python and pickle/serialize an object.