AIST 2120 Programming Assignment 5 (Ch. 16)

CSV and JSON Files

WV Hotdogs' Current Employees List: CSV and JSON Files

Introduction

Chapter 16 is all about CSV and JSON files. Let's apply them to a problem.

Assignment & Discussion

West Virginia Hot Dogs now has a consolidated employee list thanks to your efforts from PA 3. Now those employees need to be placed into the list of Current Employees, which is in CSV table format.

Your mission in this assignment is to create and manipulate CSV and JSON files. Remember to think about what each task is trying to accomplish and break them down into executable steps needed to achieve the tasks. Follow the Task list for best results.

Tasks

Write a Python 3 program to accomplish the following:

1. Pay close attention to the instructions. Your code will not execute in my directory if you don't. If it fails to execute, substantial points will be lost.
2. Manually create a folder for your workspace and call it Assignment 5. Save your assignment files into your Assignment 5 folder or directory. It will include:
   - AIST 2120 Pgm Asgn 5 Chap 16.pdf
   - WVDogsNewHires.txt
   - Files you will create in this folder include (pay attention to the extensions):
     - lastN_csv_json_ops.py (program)
   - NOTE: Output files will be written into a subdirectory (**Output**) that your code must create.
3. Place a header and footer in your code's output to the shell. Include output shown in the provided Sample Output.
4. Output the location of the code's current working directory.
5. Have your code create a subfolder, Output.
6. Have your code extract the information from **WVDogsNewHires.txt**.
   - Read the list of items from the provided file, one line at a time.
   - Pull each employee's name and job title from the file.
     - Note: Split and Strip methods may be useful here.
7. Have your code create a new file called *CurrentEmpList.csv* **IN** the Output subfolder.
   - Place each employee entry on a separate line in *CurrentEmpList.csv*.
     - Note: the first line in the file contains the column names, not employee information.
8. To verify the data wrote correctly, read the data from **CurrentEmpList.csv** and print it to the screen (see example).
9. West Virginia Hot Dogs track the dates of newly created employee lists.

- Create a separate file, *CurrentEmpList.json*, **IN** your Output subfolder
- Add the dictionary keys for Month, Day, and Year to your file.
- Provide associated values for each key (e.g., November 16, 2021)
- Bonus (+5 points) Use the *datetime* module (p. 395) so the current date is always displayed/recorded.

10. To verify the data wrote to the JSON file correctly, do the following:
    - Read the data from **CurrentEmpList.json** and print it in **Day/Month/Year** format (see example).
    - Output the date content as written to your file (see example).

Notes

Examples for screen output and file content are at the end of these instructions. These examples show what I'll look for on your output screen and in your CSV and JSON files. Your output should look mostly like mine with only minor deviations.

Requirements

□ **Application**
- Write your program in Python 3.
- Ensure your python file is named properly: **lastN_firstN_csv_json_ops.py**.
- If you use a file editor other than IDLE, note that I will run and evaluate your submissions in IDLE. Run your finished program in IDLE to ensure there are no unfortunate surprises. If it doesn't run in my IDLE, ***it doesn't run***. Programs that do not run will ***receive a failing score***.

□ **Submission**
- Submit your source code file via D2L. Neither email nor hardcopy submissions will be accepted.
  - Name your program: **lastN_firstN_csv_json_ops.py**
  - Do not submit output files. Your code should create them.
- Ensure you retain a complete copy of your program source code file(s).

□ **Due Date**: Per D2L assignment instructions.

□ **Late Penalty**: See Syllabus.

STYLE GUIDE

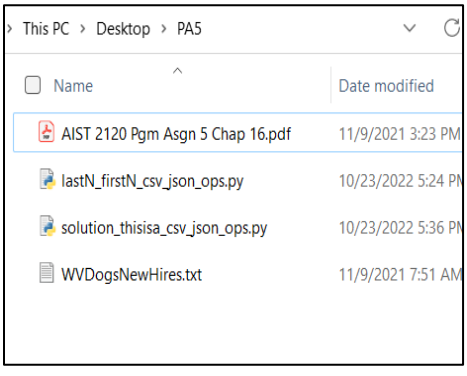
□ **File headers**. Include a header in the below format at the top of all .py source code files.

```
# YourName
# AIST 2120: Programming Assignment 5
# Submission Date: DateCompleted
# lastN_firstN_csv_json_ops.py
```

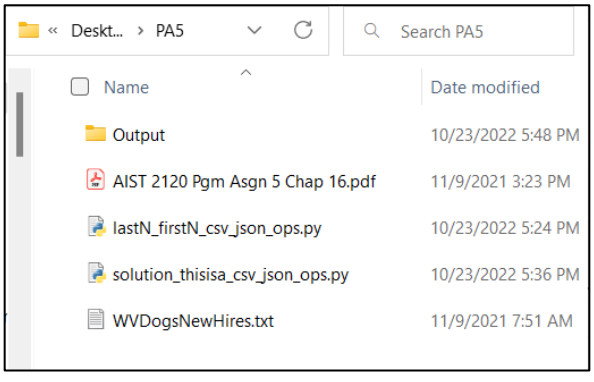
□ **Sample Output**. Your output should match the sample screen output.
- Keep in mind that the output is to inform the user and should be both clear and pleasing to those reading it.

AIST 2120 Programming Assignment 5 (Ch. 16)

Starting Folder will look like this

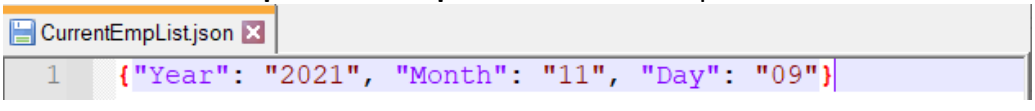


Final Folder will look like this. Output folder contains output files

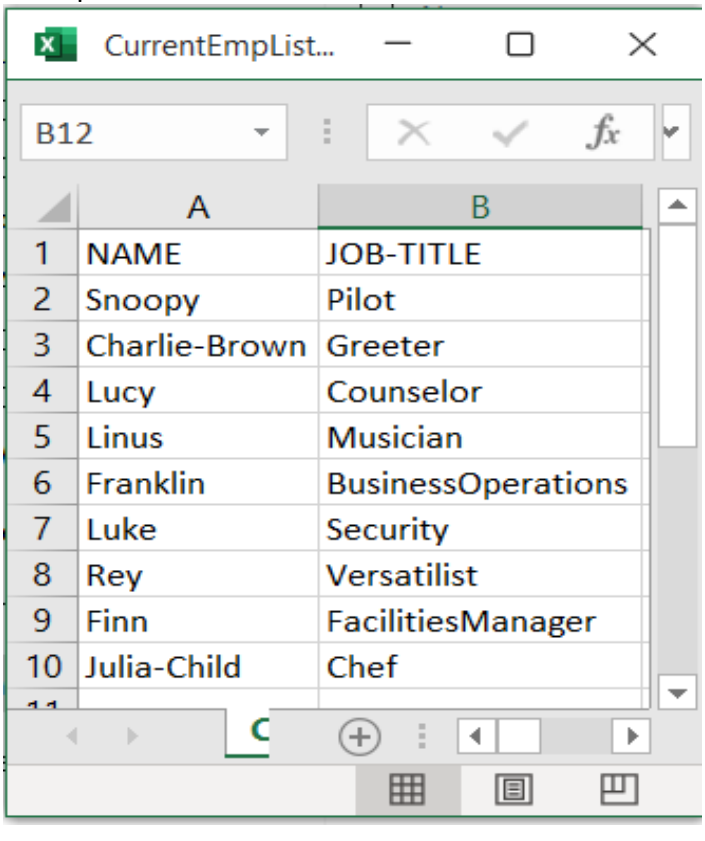


Your output folder will contain these files

Example JSON Output File: CurrentEmpList.JSON



CSV Output File: CurrentEmpList.csv



Sample Screen Output

```
          --------------------------------------------------
          ----------          AIST 2120C          ----------
          ----------       Thisisa Solution       ----------
          ----------   Programming Assignment 5   ----------
          ----------      CSV and JSON Files      ----------
          --------------------------------------------------

The current working directory is
        C:\Users\JacobCox\Desktop\PA5

Preparing to extract content and create csv file
        ...Confirming Output directory exists
        ...Directory Created

WVDogsNewHires.txt is ready for processing
CurrentEmpList.csv is ready to receive data

Processing of CurrentEmpList.csv complete
        File contains:
                ['NAME', 'JOB-TITLE']
                ['Snoopy', 'Pilot']
                ['Charlie-Brown', 'Greeter']
                ['Lucy', 'Counselor']
                ['Linus', 'Musician']
                ['Franklin', 'BusinessOperations']
                ['Luke', 'Security']
                ['Rey', 'Versatilist']
                ['Finn', 'FacilitiesManager']
                ['Julia-Child', 'Chef']

Creating CurrentEmpList.json
        ...Obtaining Date
        ...Writing content to file
Reading newly created JSON File
        Today's Date is  23/10/2022
        The following content was written to CurrentEmpList.json
                {'Year': '2022', 'Month': '10', 'Day': '23'}

Processing of CurrentEmpList.json complete!

          --------------------------------------------------
          ----------          AIST 2120C          ----------
          ----------   Programming Assignment 5   ----------
          ----------           Complete           ----------
          --------------------------------------------------
```