Harley Coughlin.

AI findings and lessons learned:

I used Claude in M2Pro for figuring out some of the Pandas things that I was doing. I was struggling to figure out how to do some of the filtering of the DataFrames so I asked Claude for some assistance. My main issue is that I was trying to find the most concise way to filter and do it all in a single line, which, isn’t realistic. Claude helped me to break the problem down into pieces and work from there. That being said, not all of Claude’s suggestions are correct or what I was looking for necessarily. It was helpful to get a general idea of the flow for what I wanted but then I had to refine it further for how I thought the program should work.

For the group, I’m the only one that used AI for the project, and my experience overall hasn’t been bad. However, one needs to take the AI code/suggestions with a grain of salt. LLMs are essentially really fancy autocomplete, which while helpful, only gives you the median of all the information available to it. That’s great for simple problems but really starts to fail once it needs more context or is trying to tackle an issue that it doesn’t have a lot of training on.

Karen Brown

I did not use AI for the original program, M2Pro, however, I did use it for the group project. I used ChatGPT Plus to help me clean up my code and make it more elegant. Our goal is to create a clean, modularized program with concise code that reduces redundancy and unnecessary looping. After I created my functions, I fed it into AI and asked if it achieved this. I then evaluated it’s response and reason and used that to conduct a deeper dive into its suggestions, my main goal being to learn the “why” and concepts so that I would be able to replicate it in the future on my own.

Our group decided to use Harley’s program from M2Pro as our base that we would then enhance. We chose this because of the modularization of the program. The layout allows for reuse of different functions as well as making it easier to work on as a group. Harley’s M2Pro was divided into multiple functions, this allows each team member to focus on their task without disrupting the entire code. We divided up the enhancements between the two of us and worked on them separately, then merged them with the original program. We then worked together to debug and finalize the program. I worked on option 4, enhancing the faculty options, while Harley updated options 2 and 5. I originally created the FTE functions that calculated total and generated FTE. These were then able to be incorporated into all necessary options.

Before

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AI-generated content may be incorrect.

Fixed:

load.py

Did not make any adjustments. Could not get lines 118 and 130 to shorten without throwing errors.

Did not make sense to break the function down into smaller functions

M4Group\_Pro\_FTE.py

Changed the comments at the top from # to “”” to conform with docstrings

Initiated df as 0 to precent it being used before assignment to prevent any errors

Created a new function for adding the dataframes created from the supplied files into a dictionary.

menu.py

Removed trailing newlines

Removed the brackets to preserve memory without having to temporarily store list

Attempted to add return None to function that did not get a return statement and it did not remove the warning, it in fact added another one that stated: menu.py:36:0: R1711: Useless return at end of function or method (useless-return)

options.py

shorted lines that were too long

changed variable all to eliminated overwriting python built in function

deleted all exceptions from program that were too general

changed variable filter to eliminated overwriting python built in function

adjusted the order of imports

transform.py

eliminated trailing newlines

changed variable filter to eliminated overwriting python built in function

deleted all exceptions from program that were too general

did not change [] as argument because this will always be filtered as is

util.py

removed unused imports

adjusted newlines

unable to adjust program to prevent cyclic import, attempted to adjust imports within separate functions without success.

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AI-generated content may be incorrect.

Flake8

M4Group\_Pro\_FTE.py

A screen shot of a computer program

AI-generated content may be incorrect.

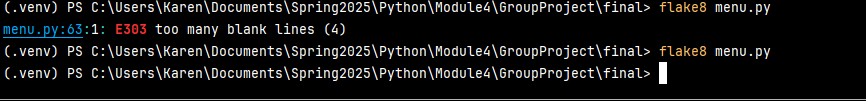
Removed blank lines in docstrings

Extract.pyA screenshot of a computer program

AI-generated content may be incorrect.

Adjusted blank lines, whitespaces, and indents

Menu.py



Removed blank lines

Load.py

A screen shot of a computer program

AI-generated content may be incorrect.

Removed blank lines, adjusted white spaces, unable to shorted lines 120 and 134 without throwing errors

Util.py

A black screen with white text

AI-generated content may be incorrect.

Adjusted whitespaces and blanklines

Transform.py

A screen shot of a computer program

AI-generated content may be incorrect.

Adjusted whitespaces and blank lines