I need a Python code to calculate federal and Virginia state income taxes for a married couple filing jointly.

Here are the specifications:

\* \*\*Income Increments:\*\* Calculate taxes for income increments of $10,000, starting from a base income of $50,000.

\* \*\*Tax Year:\*\* Use the 2024 tax brackets and standard deductions.

\* \*\*Deductions:\*\* Assume the couple maximizes their 401(k) contributions (use the 2024 limit).

\* \*\*Formats.\*\* Add $ format to dollar amounts. Add % to percentage columns.

\* \*\*Rounding off\*\* Round off dollar amounts to the nearest dollar. Round off % to 1 digit.

\* \*\*Taxable Income\*\* It cannot be less than 0.

\* \*\*Output one line\*\* Output each row in one line.

\* \*\*Functions\*\* Any function should be written before they are called. Keep a separate section for functions.

\* \*\*Output:\*\*

\* Create a pandas DataFrame with the following columns (short form for column name in parenthesis):

\* Total Income (Income)

\* Taxable Income (TaxOn)

\* Federal Tax (US\_Tax)

\* Virginia Tax (VA\_Tax)

\* Total Tax (Total\_Tax)

\* 401K Contribution (401K)

\* Effective Tax Rate (Eff Rate)

\* Marginal Tax Rate - tax on the last $10,000 increment (Marg Rate)

\* \*\*Libraries:\*\* Use pandas for DataFrame creation.

Please provide the complete Python code, including the tax brackets, standard deductions, and 401(k) contribution limit.

Can you separately provide a Google sheet for the same problem?

**US\_VA\_Tax.Prompt**

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