

Divine Efiok
UIN: 134002944

AI Reflection:

Since I had an idea of what I would need to do in python, I used AI to clarify some of the steps I would have to take to ensure that I was doing what was required. I was not sure what tools I would need to use for this assignment, I used AI as a **clarification and guidance tool**. I had a general idea of the steps needed to create the matrix visualization in Python, but I was unsure about which libraries and plotting techniques would be most effective. AI helped me understand:

- Which Python libraries could be used for interactive matrix visualizations (Plotly, Dash, Streamlit).
- How to structure the data, such as grouping by month and year, and filtering for the last 10 years.
- How to include features like tooltips and toggling between maximum and minimum temperatures.

I ultimately implemented the visualization using **Plotly**, following the guidance from AI. I also made decisions on colors, layout, and hover interactions based on my own judgment.

Using AI helped me learn more quickly about data visualization tools and clarify the steps I needed to take, but I verified all code snippets and adjusted them to work with my data and assignment requirements. Through this process, I gained a better understanding of:

- Organizing time-series data for matrix visualization.
- Using Plotly for interactive heatmaps and mini line charts.
- Best practices for presenting data in an intuitive and readable way.

Overall, AI served as a learning companion, not a replacement for my work. I used it to accelerate understanding and make informed decisions.