Portfolio Performance Analysis Dashboard – Project Summary

Objective:

To analyze and visualize the performance of a stock portfolio using real-world data, showcasing both equal-weighted and custom-weighted strategies through interactive dashboards.

Tools & Technologies:

- Python: Data extraction and processing
- yfinance: Fetching historical stock data
- pandas & numpy: Data manipulation and portfolio calculations
- Power BI: Interactive dashboard creation
- DAX: Custom measures for latest value calculations

Key Steps:

1. Data Collection:
    - Downloaded 5 years of historical stock data for AAPL, GOOGL, and MSFT using yfinance.
2. Data Processing in Python:
    - Calculated daily portfolio values using equal and custom weights.
    - Cleaned and structured the data using pandas.
    - Exported the processed dataset to a CSV file (portfolio_performance.csv).
3. Visualization in Power BI:
    - Imported the CSV into Power BI.
    - Created line charts for portfolio value trends.
    - Added slicers for dynamic date filtering.
    - Used DAX to calculate and display latest portfolio value cards.

Outcomes:

- Built an interactive financial dashboard to compare equal vs custom portfolio strategies.
- Gained hands-on experience with financial data, analysis workflows, and BI tools.
- Learned to combine programming (Python) with business intelligence (Power BI) for impactful reporting.