PortFolioIQ: Financial Portfolio Management System

Milestone 1

of

Data Warehousing and Integration

BY

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Problem Definition:

Managing an investment portfolio has become increasingly complex due to the vast amounts of financial data available. Investors often face difficulties in filtering relevant information, balancing risk and returns and making informed decisions on time. Additionally, the process of analyzing and managing portfolios especially without real-time insights can be overwhelming.

The Financial Portfolio Management System (FPMS) aims to address these challenges by providing a platform where investors can analyze static historical data and track their transactions. The system will offer insights based on both static reference data and transactional. This will help investors optimize their portfolios over time and make better decisions with reduced risks.

Operational Business Context:

The FPMS is designed to support individual investors and portfolio managers by creating a centralized platform where they can manage their investments efficiently. The system will allow users to make decisions using both static data and real-time transactional updates.

The on-premises operational database will store data that supports:

- **Static Reference Data:** This includes historical stock prices, financial statements from companies, and market indices.
- **Transactional Data:** This includes records of real-time transactions like buy/sell orders, dividends and portfolio adjustments. These transactions are critical for understanding the ongoing performance of a portfolio and supporting post-trade analysis.

By setting up this database, FPMS will provide users with the tools they need to track portfolio performance and make data-driven investment decisions over time.

Key Data Sources:

The operational database will store both static reference data and transactional data, including:

Static Data:

1. **Historical Stock Prices:** Historical data on stock performance over time allows investors to assess trends and market behavior.
2. **Company Financial Reports:** Quarterly and annual reports on a company's earnings, revenue and overall financial health.
3. **Market Indices:** Data that tracks the performance of the broader market such as the S&P 500 to provide benchmarks for comparison.

Transactional Data:

1. **Buy/Sell Orders:** Records of transactions initiated by the investor in real time.
2. **Dividends and Portfolio Rebalancing:** Data on dividends received and any adjustments made to the portfolio based on changes in market conditions.
3. **Portfolio Adjustments:** Any updates or changes to portfolio allocations over time-based on investment strategies.

This mix of static and transactional data ensures that the system provides both long-term insights via static data and real-time tracking via transactional data.

Analysis Goals:

The FPMS will enable users to:

a) **Optimize Portfolio Management:** Use historical data to analyze long-term trends and adjust their portfolio based on performance.
b) **Risk Management:** Evaluate the risk associated with individual stocks or the entire portfolio by analyzing both static and transactional data.
c) **Post-Trade Analytics:** Track the performance of trades and portfolio adjustments over time. The system will provide insights into past transactions and help investors refine their investment strategies.

These features are powered by the operational database which combines both static and transactional data to provide a complete picture of an investor's portfolio.

Conclusion:

The Financial Portfolio Management System (FPMS) is built to help investors manage their portfolios by analyzing both static historical data and real-time transactional data. The on-premises operational database will store essential data that supports informed decision-making, risk management and portfolio optimization. This milestone sets the foundation for further analysis and development, ensuring that the system can grow to handle more advanced features and data requirements in the future.