

Stock Portfolio Manager

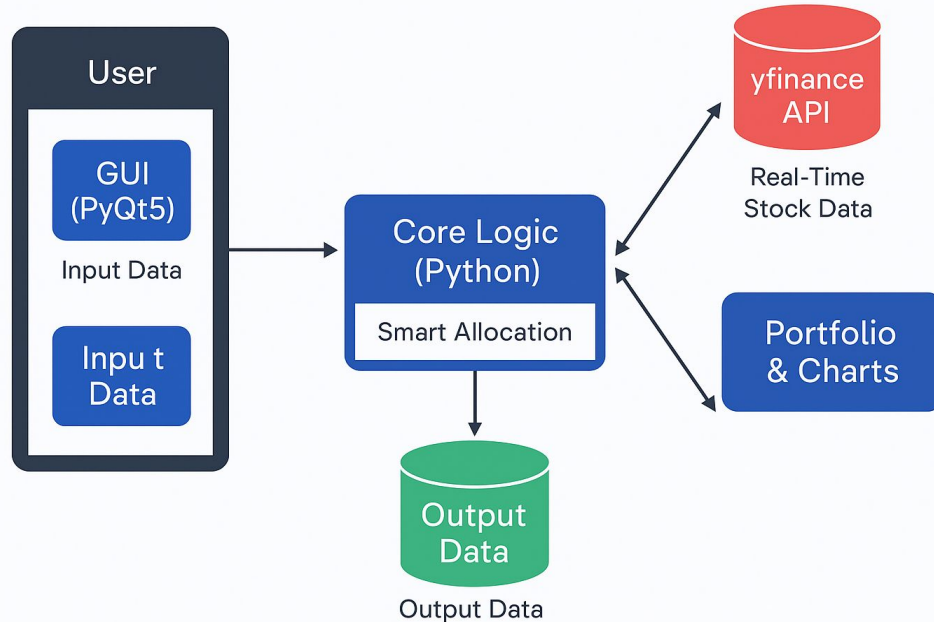
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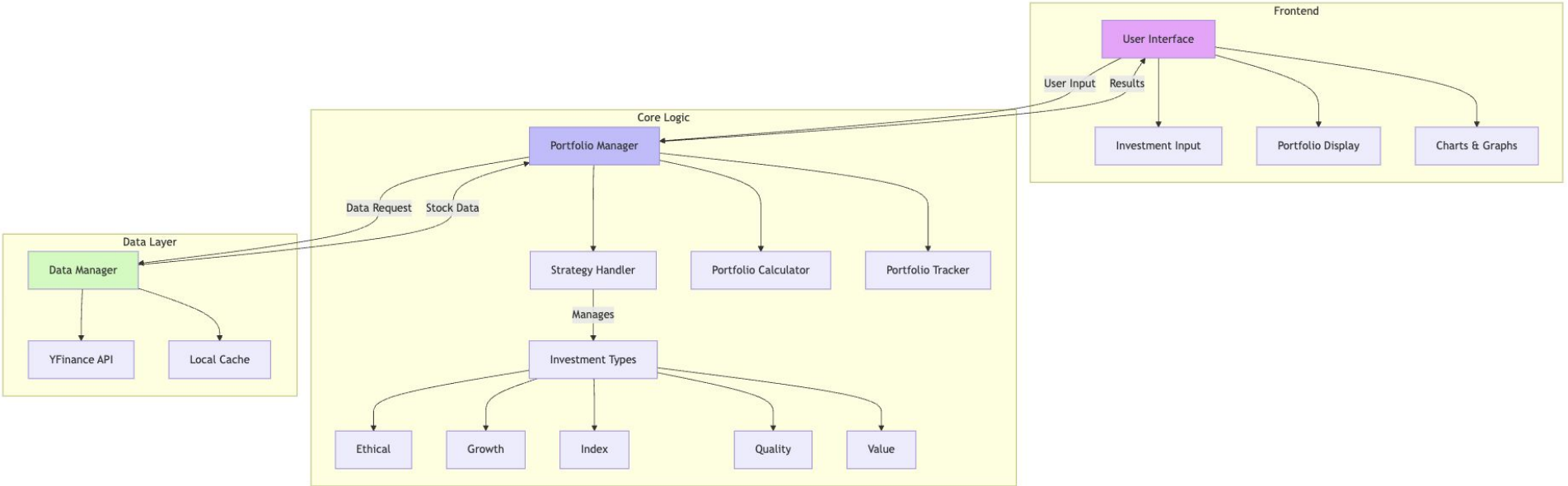
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System Architecture





Core Features

Key Features:

Smart Investment Allocation

- Based on risk-adjusted returns & strategy

Real-Time Stock Analytics

- Prices, volumes, and 5-day history

Multi-Strategy Support

- Combines Ethical, Growth, Index, Value, and Quality Investing

Interactive Visualizations

- Pie chart + historical performance graph

Detailed Stock Breakdown

- Shares, market cap, dividend, P/E

Extra Features

- Risk-adjusted Allocation Logic
- Clean UI tab separation for input, charts, and stock data
- Fully Local GUI App (no web server needed)
- Dynamic Historical Graphs
- Fundamentals Table (P/E, dividend, 52W range)

Challenges Faced

- Ensuring Accurate Data from yfinance (handling missing or stale info)
- Cross-platform UI Compatibility (Mac vs Windows rendering differences)
- Allocation Logic Precision (float rounding issues on share calculation)
- Matplotlib Rendering Delays (especially for live updates)
- Efficient Data Refresh Without Freezing UI (threading challenges)

Thank You!