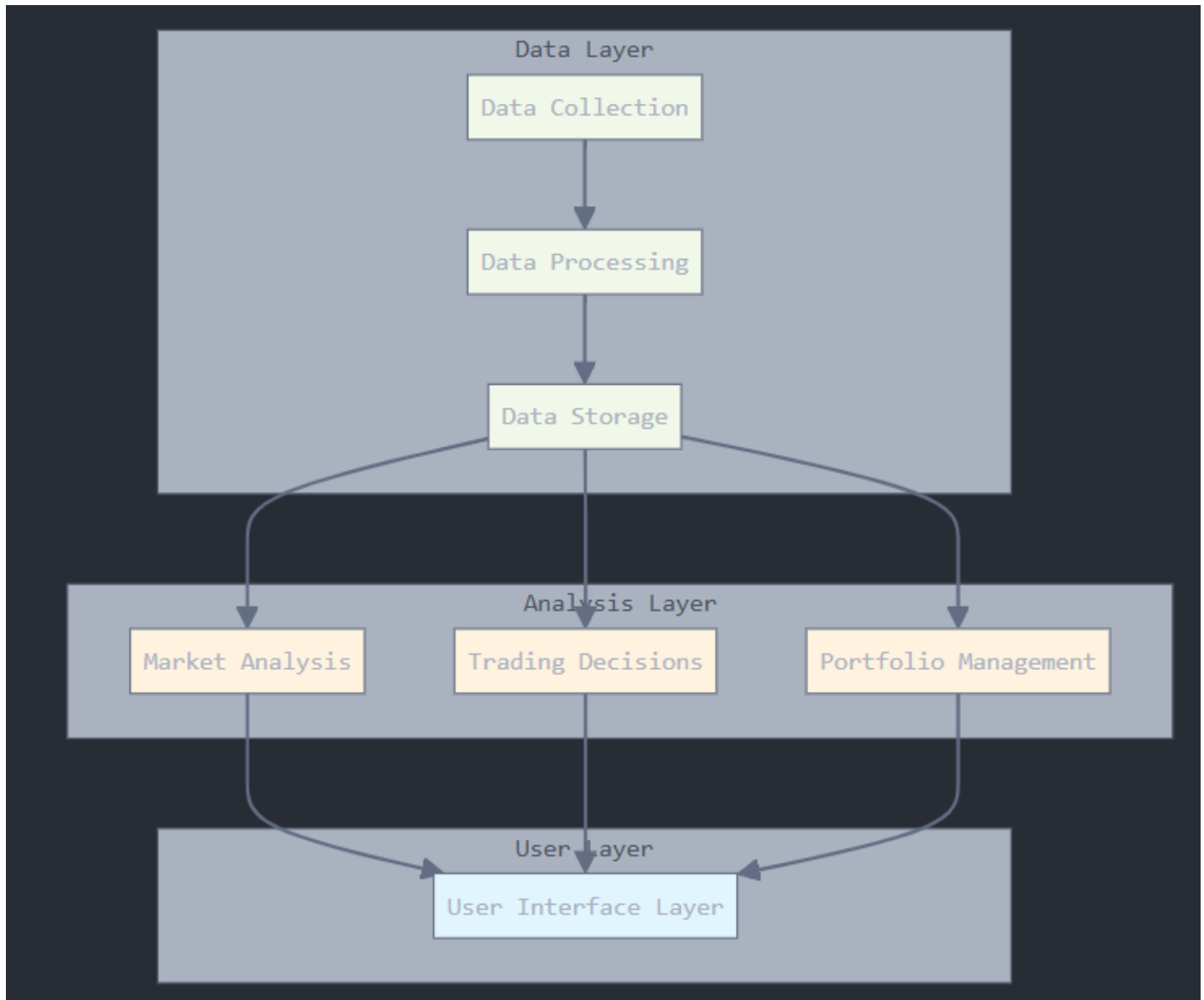# Conceptual Architecture

1. **User Layer**

- Purpose: Provide intuitive access to market data and analysis
- Components: Dashboard, reports, visualizations
- Capabilities: View market data, receive recommendations, manage portfolio

2. Analysis Layer

- Market Analysis
  - Technical indicators processing
  - Fundamental data analysis
  - Pattern recognition

- o Market trend identification
- Trading Decisions
  - o Buy/sell recommendations
  - o Risk assessment
  - o Market opportunity identification
  - o Confidence scoring
- Portfolio Management
  - o Portfolio tracking
  - o Performance monitoring
  - o Investment distribution
  - o Risk balancing

3. Data Layer

- Data Collection
  - o Market data acquisition
  - o Company reports gathering
  - o Historical data compilation
  - o Real-time updates
- Data Processing
  - o Data cleaning and validation
  - o Format standardization
  - o Data enrichment
  - o Quality assurance
- Data Storage
  - o Historical price archives
  - o Processed market data
  - o Analysis results
  - o Trading recommendations

4. Key Data Flows

- Raw data → Processed data → Analysis
- Analysis results → Trading decisions
- Trading decisions → User recommendations
- Market updates → Real-time processing → Live display

5. Business Rules

- Data validation requirements
- Trading recommendation criteria
- Risk management constraints
- Portfolio diversification rules
- Update frequency requirements

This architecture emphasizes business functionality while remaining technology-agnostic, making it accessible to all stakeholders while providing a clear foundation for technical implementation.