

Component Relationships Overview

The system is designed using a layered architecture, where each component has a clear responsibility and does not interfere with other layers.

ConsoleView (UI Layer)

This is the user interface. It does not perform business logic. Instead, it communicates with the service layer through the ISharePriceService interface, keeping presentation separate from processing.

SharePriceServiceImpl (Business Logic Layer)

This component contains the main business logic. It validates user input, determines what data is required, and coordinates data retrieval.

It depends on:

- IShareRepository (implemented by JsonShareRepository) for caching and local data storage.
- ShareDataProvider (implemented by YahooFinanceProvider) for retrieving live market data.

Repository and File System

The repository manages cached data and interacts with the file system to save and load JSON files.

Data Provider and Yahoo Finance API

The data provider communicates with the Yahoo Finance HTTP API to fetch share price data from the internet.

Domain Model (SharePrice, ShareQuery)

These are simple data objects used across the system. They represent core business information and do not depend on other layers.

ApplicationContext

This component handles dependency wiring. It creates and connects all components, so the system functions correctly.

