Architectual Concepts:

The system's design combines concepts from Clean Architecture, separation of concerns, and Simple Architecture. As the project moves forward through subsequent sprints, these ideas guarantee that the program will continue to be simple to comprehend, maintain, and expand.

Basic Principles of Architecture

By maintaining minimal, autonomous, and focused components, the system adheres to simple architecture. There is less needless complexity because each component of the system has a single, distinct responsibility. This method guarantees that new features may be added without interfering with current functionality and helps the team stay focused while developing.

Distinguishing Concerns

Dividing the system into discrete layers, each in charge of a certain aspect of the application's behaviour, is a crucial architectural choice. User interaction is handled by the presentation layer, requests are coordinated by the controller layer, business logic is included in the service layer, and communication with external APIs is managed by the data layer. This division makes it simpler to test and alter the system and keeps logic from becoming twisted.

Influence of Clean Architecture

Despite not fully embracing Clean Architecture, the system's design is guided by a number of its concepts. The independence of core domain models from external frameworks guarantees that business logic is not reliant on UI technologies or API specifics. By abstracting external data sources through interfaces, the system can add new providers or swap between existing ones without requiring significant structural adjustments. This method lessens component coupling and promotes long-term flexibility.

Assistance with Project Objectives and Requirements

The functional and non-functional requirements of the system are directly supported by these design decisions. Implementing comparison logic, integrating APIs, and developing visualisation features in subsequent sprints are all made simpler by the modular structure. Maintainability and scalability are enhanced by the distinct

boundaries between layers, guaranteeing that the system can expand as new features are added. The project stays in line with its objective of creating a clear, expandable, and trustworthy share price comparison tool by maintaining a straightforward and well-structured architecture.