The relevant patterns are:

- Interception filter: filters to check the client host identity and if a session exists for the client should precede the entry point of the system.
- Front controller: a single point of entry to the system should be defined, to prevent unauthorised direct access to its functional components.
- Session facade: a session bean which carries out all the trader operations is defined.
- Data access object: to handle the retrieval of data from the financial data sources and the databases, and the interaction with the trading service. Only these DAOs need to change if there is a format change in the data.
- Value object: to transfer data between tiers.

We could also consider the use of Composite View to handle the complex data presentation of financial and portfolio data.

Figure 1 shows the architecture of this system.

Figure 1: Architecture of finance system