

High-Level Architecture:

- **Web Interface:** This is where fund managers and investors interact with the system.
- **Application Layer:** Handles business logic and communicates with the database and other services.
- **Real-Time Updates:** A component responsible for handling real-time updates and notifications.
- **Database:** Stores all data related to investment pools, users, transactions, and more.
- **Security:** Manages user authentication, authorization, and encryption.
- **Scalability and Load Balancing:** Ensures the system can handle a growing number of users and transactions.

Scalability:

- **Microservices Architecture:** Break the system into microservices that can be independently scaled. For example, separate services for user management, transaction processing, and real-time updates.
- **Load Balancers:** Distribute incoming requests across multiple servers to balance the load.
- **Caching:** Implement caching for frequently accessed data to reduce database load.
- **Horizontal Scaling:** Add more server instances as the user base and transaction load grow.

Technologies:

- **Backend:** Laravel
- **Database:** MySQL
- **Frontend:** React
- **Real-Time:** Socket.io or Laravel WebSockets
- **Version Control:** Git