KASB KTrade

System Design:

KASB KTrade is a mobile stock trading platform designed for users to engage in stock transactions on the go. The architecture is microservices-based, assigning specific responsibilities, such as order routing and trade execution, to individual services. This design enhances maintainability and scalability, while additional technologies like caching, load balancing, and distributed database replication further optimize performance.

API Architecture:

KASB KTrade provides a robust API, allowing developers to seamlessly integrate the platform into their applications. The API offers access to core features such as order placement, trade execution, and account management. It is user-friendly and well-documented, featuring examples and tutorials to facilitate smooth integration.

Approaches to Scalability:

The platform employs several strategies for scalability, including:

- **Microservices Architecture:** Tasks are distributed among small, independent services, ensuring easy maintenance and scalability.
- **Caching:** Frequently accessed data is stored in memory, reducing database queries and improving system performance.
- **Load Balancing:** Traffic is distributed across multiple servers, enhancing both performance and reliability.

Software Architecture:

KASB KTrade's software architecture is centred around a microservices design. This means the system is divided into small, independent services, each responsible for specific tasks like order routing or trade execution. This microservices architecture enhances maintainability and scalability, allowing for independent scaling of each service.

Strengths:

- Free Accounts
- Access to Research Portal
- Lowest Commission
- Dedicated Traders Assistance

Weaknesses:

Some weaknesses can be seen in customer reviews:

- Limited educational resources
- Slow and Unresponsive customer support
- Slow app performance
- Technical issues
- High fees

Investify:

System Design:

Investify is a mobile investment platform simplifying investment processes in mutual funds, ETFs, and other products. The system prioritizes simplicity and user-friendliness, making it accessible even for those with minimal investment experience. Built on a cloud-based architecture, the platform can easily scale up or down based on demand. Similar to KASB KTrade, Investify employs caching and load balancing to optimize system performance.

API Architecture:

Investify also offers a robust API for developers, providing seamless integration into their applications. The API provides access to core features such as account management, investment product data, and transaction history. It is designed to be user-friendly, supported by comprehensive documentation, examples, and tutorials.

Approaches to Scalability:

Investify, like KASB KTrade, employs several approaches to scalability:

- **Cloud-Based Architecture:** The platform is built on a cloud-based architecture, ensuring easy scalability by adjusting resources as needed.
- **Caching:** Frequently accessed data is stored in memory to reduce database queries and enhance system performance.
- **Load Balancing:** Traffic is distributed across multiple servers, improving overall system performance and reliability.

Software Architecture:

Investify's software architecture is characterized by its cloud-based design. Hosted on platforms like AWS or Microsoft Azure, this architecture allows for seamless scaling by adding or removing instances as required. This flexibility makes it adaptable to varying levels of demand.

Strengths:

- Interactive Graphs
- Detailed Stocks
- Business News
- Manage Portfolio
- Personal Watchlist

Weaknesses:

Some weaknesses can be seen in customer reviews:

- Limited investment options
- High Fees
- Lack of Transparency
- Complex user interface
- Limited educational resources