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BCS-7B

Web Programming: Assignment 1

Question 3:

KASB KTrade:

KASB KTrade is an app for selling and buying stocks in the stock market.

The system design: KASB KTrade is based on the three-tier architecture which include the presentation layer, application layer and data layer. The presentation layer uses native mobile development frameworks. The application layer is implemented using a microservices architecture.

API: KASB KTrade provides a RESTful API that allows developers to integrate the app's functionality into their own applications and the data layer is implemented using a relational database management system (RDBMS).

System architecture: KASB KTrade uses a microservices architecture where each microservices handles specific tasks that it is responsible for.

Scalability: The KASB KTrade application has good scalability due to the usage of microservices as they can be easily added in order to handle increased load. The RDMS also provides good scalability as it is able to handle large amounts of data. Furthermore, KASB KTrade uses the cloud in order to store data which provides much scalability. It also uses load balancing across multiple servers in order to handle large traffic.

Strengths:

The app is developed using native mobile development frameworks as they are faster, more responsive and provide better security. Relational database management system is most secure and provides integrity in order to keep user data safe. The microservices architecture makes the system scalable and less chances of failure. The cloud-based hosting provides scalability.

Weaknesses:

KASB KTrade is only available in Pakistan and for the Pakistan Stock Exchange. It cannot be used in other countries therefore has limited users. It also has higher fees than some other mobile trading apps.

Investify:

Investify is a fintech startup produced in Pakistan that allows users to invest in mutual funds, stocks, and other securities.

The system design: used by Investify is a 2 tier architecture which includes the presentation layer and application layer.
API: It provides a RESTful API.
System architecture: Investify is implemented using a monolithic architecture that stores the app's functionality in a single codebase.
Scalability: Investify is hosted in the cloud which means it can be easily scaled on demand. It alos uses load balancing to distribute traffic across multiple servers.

Strengths:
Investify is cheaper than most trading apps including KASB KTrade.It has good customer support services and is responsive and helpful. The biggest strength is that it offers a variety of investment options, including mutual funds, stocks, and bonds.
Weaknesses:
Despite having a wide variety of options it still has very limited features such as real-time data streaming and market analysis. The monolithic architecture makes the system less scalable and more prone to failures than a microservices architecture. Investify also has limited availability as it is only available in Pakistan.