# **KASB KTrade:**

A Stock Trading Application for the Pakistan Stock Exchange (PSX)

#### Overview:

KASB KTrade is a stock trading app that empowers users to engage in stock trading activities on the Pakistan Stock Exchange (PSX).

## **System Design & Software Architecture:**

While specific details are not provided, it is likely that KTrade adopts a multi-tier architecture, segregating presentation, business logic, and data storage layers.

The application probably employs a combination of relational databases for handling transactional data and NoSQL databases to manage user profiles and preferences.

### **API Architecture:**

KTrade is expected to utilize RESTful APIs for facilitating communication between mobile and web clients and servers, ensuring scalability and seamless integration with other systems. It may employ OAuth for secure authentication and authorization, guaranteeing protected access to user data.

## Scalability:

To effectively manage high volumes of trades and user requests, KTrade may leverage cloud-based solutions, taking advantage of auto-scaling and load balancing mechanisms. Caching mechanisms may also be implemented to alleviate database loads and enhance response times.

# Strengths:

User-Friendly Interface: KTrade is thoughtfully designed for user-friendliness, making stock trading accessible even to beginners.

Real-Time Data: The app offers real-time stock prices and up-to-date market data.

#### Weaknesses:

Limited to PSX: Users are restricted to trading stocks exclusively listed on the Pakistan Stock Exchange.

Potential Latency: Like other trading apps, there is a possibility of latency, which can impact the execution times of trades.

# **Personal Experience:**

In my experience i found the website to be well laid out & easy to use.

# Investify

It is Comprehensive Real-Time Stocks and Portfolio Tracking App for the Pakistan Stock Exchange (PSX)

### Overview:

Investify is a robust application designed for tracking stocks and portfolios on the Pakistan Stock Exchange (PSX). It delivers live data, graphical representations, business news, and more.

## **System Design & Software Architecture:**

While the website does not explicitly detail the exact system design and software architecture, the available features strongly suggest that Investify employs a multi-tier architecture, with distinct layers for presentation, business logic, and data storage.

It's likely that Investify utilizes cloud-based solutions to ensure data consistency and accessibility.

### **API Architecture:**

Although the precise API architecture is not specified, the app's provision of real-time data strongly hints at the use of RESTful APIs or WebSockets for continuous data updates. The application offers real-time data for all KSE indices and over 500 Pakistani companies, indicating a robust backend system capable of handling extensive data.

# Scalability:

The app's capacity to provide real-time data for a vast number of stocks implies the implementation of scalability solutions, which may include caching, load balancing, and distributed databases.

# Strengths:

Real-Time Data: Investify provides real-time prices for PSX stocks, along with charts, financial information, and business news.

Interactive Graphs: The app offers live and historical price and volume charts spanning up to 5 years.

Comprehensive Features: It includes detailed stock information, financial data, technical analysis, announcements, company profiles, and more.

Shariah Compliant Stocks: Users can easily filter and view Islamic stocks.

Data Sync: Portfolio and watchlist information is automatically synchronized across devices.

Mock Trading: Users have the option to practice trading virtually using a PSX demo account.

## Weaknesses:

Limited to PSX: Investify restricts users to tracking stocks listed exclusively on the Pakistan Stock Exchange.

Dependency on Third-Party Data: The app relies on real-time data from PSX, which means that any disruptions or inaccuracies in the source data could potentially impact the app's performance & availability.

### References:

Investify is recognized as Pakistan's leading and most popular app for monitoring the Pakistan Stock Exchange <u>link</u>

The app boasts 525,000 downloads and has garnered 4,100 reviews link

# **Personal Experience:**

In my experience i found the website to be very easy to use & pleasing to the eyes