Question 3

Study and explore the applications '*KASB KTrade*' and '*Investify*'. Write about their system design, API architecture, approaches to scalability, and software architecture. Additionally, evaluate the strengths and weaknesses of their software system designs. Give proper references to facts and figures in your document. Sharing your personal experience when using the application is a bonus point [40]

Ans

KASB Ktrade: This website uses GoDaddy CoBlocks and Elementor as their page builders. The CMS and Blogs are made using WordPress. The Programming Language used in PHP. To fetch/ load data from the back end, the MYSQL database is being used. Google Maps integration is also used in the website. When it comes to generating UI frameworks, this website uses Bootstrap and Animate.css to design an interactive interface. The website is enabled with GTranslate feature in order to support people from different cultural backgrounds and languages. For security, the website uses HTTP Strict Transport Security, which protects websites from man-in-the-middle attacks. It also prevents cookie hijacking. Another security authentication used is reCAPTCHA which stops bot attacks on a website by verifying that a human is using the website. The webpage uses a WhatsApp Business chat link to directly connect customers with the company in case of an issue with a single click of the button. Multiple JavaScript libraries are being used which include jQuery, core-js, and many more. For the font, the website uses Google Font API and Font Awesome. Google Ads are being enabled on the website to earn revenue also Google Analytics will provide insight on the incoming traffic. The website is open to scalability and new modules can be added easily. As the website involves, stocks and investments, therefore, the security is top-notch to protect user funds and investments. Users can create their accounts and access their stocks anywhere phone, web browser etc. All of this analysis regarding the architecture and components used in the website is done using wappalyzer an online website for getting insights into the internal components of the webpage.

Investify: This website is more of an information site to give an insight of the company. The main framework used is Bootstrap and LiteSpeed as the web server. Mail Chip is the marketing automation and email server being used. For the live chat facility WhatsApp business chat API is being integrated. The main JavaScript libraries being used are jQuery, Slick, and AOS. For the font, Google Font API is being used. There is no database used in this architecture. The majority of the work is at the front end as no such database is associated with querying data. Furthermore, I believe this architecture is difficult to scale the fact that plugins are not created. In the future in order to fetch data from databases a lot of work will be needed therefore this website poses a threat to scalability. In order to create an account or buy stocks, one must download the application. This means that you will be unable to operate your account remotely and hamper all your activity on your phone. This issue poses a severe weakness to the system as multiple users prefer to do trading on a laptop as it is easy to analyze the charts and graphs and also is a much more professional way.