

ABSTRACT

The digital transformation has brought many significant changes in a variety of industries, including education. The education sector is encouraged to adapt to the latest technologies, including distance learning and digital platforms. Telkom University, as one of the educational institutions that has adapted to this era, has developed a SOFI platform to monitor the Final Task Meeting at the Faculty of Industrial Engineering. The SOFI application was originally developed using a monolithic architecture and the concept of MPA. However, these architectures and concepts are no longer sufficient to handle large numbers of users and improve the user experience. The research aims to develop front-end SOFI applications by implementing SPA. SPA is chosen to reduce response times and improve interactivity and error handling, while microservices architecture allows for greater flexibility and scalability. The methodology used in this study is the Iterative Incremental Development approach. This approach was chosen because of its flexibility in accommodating user feedback and changing needs during the development process. The results of this study show that migration to SPA improves the performance and user experience of SOFI applications, as well as makes it easier for developers to understand and maintain code. Thus, the research makes a significant contribution to the digitization of educational services, in improving the efficiency and convenience of users in the final trial process.

Keywords— digital transformation, iterative incremental, microservices, multi page applications, single page application