

ABSTRACT

The helpdesk system in LAAK at the Faculty of Informatics faces significant challenges in handling public complaints, characterized by delayed response and lack of ticket distribution efficiency. Existing conditions show difficulties in managing complaints quickly and transparently, which has an impact on reducing the quality of public services. This problem is crucial because the non-integrated system results in the complexity of handling complaints, thus requiring a responsive information technology solution. The gap between the needs of the community for excellent service and the capacity of the current system urges technological innovation. The research developed a Component-Based Architecture (CBA) based helpdesk website using React.js and Tailwind CSS, with a Software Product Line (SPL) approach to create a modular and flexible system. Each component is designed to be reusable to optimize system development and adaptation. The results show that the system is able to provide real-time response, improve ticket distribution efficiency, and provide a transparent platform for the public. This solution is expected to transform Faculty of Informatics public services to be more effective and accountable.

Keywords: *helpdesk, component-based architecture, software product line, public service, information technology.*