

Abstract

Efficient lecturer plotting mechanism is a challenge for educational institution, especially the one with complex business process. Currently, some insitutions still uses office application that are not specifically designed for this purpose, making the process unnecessarily insufficient also prone to errors. This research aims to develop a frontend system for web-based lecturer plotting system, that take advantage of single page application approach and lazy loading technique. The development process uses an interactive, sprint-based approach, later followed by quality evaluation to verify the architectural characteristics and measure the webiste overall performance. The results shows that the SPA successfully implemented page navigation wihtout full page reloads. Furthermore, performance analysis shows that implementating lazy loading is effective at reducing the initial bundle size by approximately 16% and speeding up page load time by up to 42% compared to eager loading technique.

Keywords: Frontend development, lecturer plotting, web based systemm, single page application, lazy loading.
