

WEB SERVICE DEVELOPMENT FOR MULTIBANK PAYMENT SYSTEM OF STATE UNIVERSITY OF JAKARTA

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ABSTRACT

Payment transaction at Jakarta State University cooperates with four banks. Even though it cooperates with four banks, the payment system does not work like what a multibank should be. Each bank handles various type of payment based on the student's faculty and/or entrance year separately. This could reduce the flexibility of banks as a payment medium. There needs to be a system that handles every payments in a flexible and integrated manner, and is able to adapt to changes both in terms of development and business cooperation process. This research aimed to develop and produce a web service that can be used to implements multibank at The Jakarta State University and is adaptive to future changes. The Multibank Web Service was developed with the concept of Service Oriented Architecture, spiral development model, Node.js environment, Express Framework, and MySQL database resulted in the creation of 8 endpoints. Unit Testing will be used as a method of testing for every developed endpoints. The test result shows that 8 endpoint was functioning properly and are suitable to be used as a web service for the multibank system in Jakarta State University.

Keywords: *Multibank, Web Service, Service Oriented Architecture, Model Spiral, Node.js, ExpressJS, MySQL, Unit Testing, Universitas Negeri Jakarta.*