

SKRIPSI

**PENGEMBANGAN *WEB SERVICE* SISTEM PENGELOLAAN
KURIKULUM UNIVERSITAS NEGERI JAKARTA**



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**PROGRAM STUDI
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DEVELOPMENT OF *WEB SERVICE* MANAGEMENT SYSTEM CURRICULUM OF STATE UNIVERSITY OF JAKARTA

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ABSTRACT

State University of Jakarta (UNJ) has implemented website technology in supporting lectures. Siakad.unj.ac.id is one of the websites used by students to take courses every semester based on the curriculum, but curriculum management is not efficient and is still separate in each study program. In addition, curriculum concept changes every few years require adaptation of a system to new needs. The purpose of this study is to produce a web service that is used for the UNJ curriculum management system which is adaptive to future curriculum concept changes. In developing the web service of the UNJ Curriculum Management System using the spiral method by conducting interviews and literature study of the curriculum document for functional needs analysis. Furthermore, the design of the Entity-Relationship diagram, database, endpoint, and risk analysis is carried out. Then the implementation is carried out using the Node.js software with the Express.js framework and the testing is carried out using unit testing method with Postman application. The result of this research is a web service that generates 62 endpoints or urls that can be called via HTTP. All of the tests performed on 62 endpoints were successful so that they met the criteria and were fit for use.

Keywords: Web Service, Curriculum Management System UNJ, Spiral Method, Endpoint, Unit Testing.