ABSTRACT

DESIGN AND BUILD BACK-END INFORMATION SYSTEM MUSIC COURSE USING RAD METHOD (CASE STUDY: FERMATA MUSIC COURSE)

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*Fermata Music course, a music and vocal course institution in Yogyakarta that serves students from within and outside the country. The main problem faced is data manage*ment *using Microsoft Excel and paper for the administration of music courses, students, schedules, attendance, and payroll, which results in difficulties in managing data centrally and securely in the absence of an adequate database system. Therefore, it is necessary to develop a back-end system that can integrate all data, business logic, and improve data security through the imple*ment*ation of JSON Web Tokens (JWT) that can be integrated into the fermata music course information system. The back-end system was developed using Node.js with the Express.js framework and MongoDB database, following the Rapid Application Development (RAD) method through three stages: require*ments *planning, system design, and imple*ment*ation. To ensure data security. System testing was conducted using black-box and unit testing methods to verify functionality and program code with 100% success rate. The development results show that the system successfully integrates all data manage*ment *and business logic in a structured manner, with all functions running according to user needs.*

Keywords: Black-box, Design and Build, Music course, RAD, Unit Testing