

ABSTRACT

WEB DESIGN AND SCHEDULING SYSTEM USING EXTREME PROGRAMMING METHODS (CASE STUDY: MAARIF NU MARGASARI VOCATIONAL SCHOOL, TEGAL DISTRICT)

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Subject scheduling is very important to ensure smooth learning at school. The subject scheduling process at SMK MAARIF NU Margasari is still done manually using Microsoft Excel, which is prone to data input errors, schedule conflicts, and data loss. In addition, the methods of collecting assignments and delivering material are still not centrally documented. As a result, it is difficult for students to access learning information again. The objective of this study is to address these issues by developing and implementing a web-based subject scheduling system using the Extreme Programming (XP) methodology. The system is designed using JavaScript with the React.JS framework as the front end and Express.JS as the backend, along with PostgreSQL as the database. Testing was conducted using the Blackbox Testing method to evaluate the system's functionality, achieving a success rate of 94% out of 75 scenarios, with 71 successful outcomes. Based on these results, the developed subject scheduling system is deemed suitable for implementation to address scheduling and learning management issues at SMK MAARIF NU Margasari.

Keyword : Blackbox Testing, Extreme Programming (XP), React.JS , School scheduling system, Website.