Design of an Automatic Letter Numbering System Using the Decision Tree Method on a Village Administration Website

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ABSTRACT

Letter administration services at the Pesudukuh Village Hall, Nganjuk Regency, are still performed manually using physical logbooks, which is time-consuming and vulnerable to human error. This study aims to design a website-based village administration information system (E-LaDes) equipped with an automatic letter numbering feature to digitalize public services. The system was developed using the Agile Scrum method through four sprint stages, while the Decision Tree algorithm was applied to automatically classify and determine the letter sequence numbers. Blackbox testing showed that the system functionality operated with a 100% success rate, and testing of the Decision Tree algorithm on 20 document samples proved it achieved 100% accuracy without duplication. User acceptance evaluation using the System Usability Scale (SUS) involving 97 respondents resulted in an average score of 75.95, placing the system in the Acceptable category with a subjective rating of Good and a Grade C ranking, concluding that E-LaDes is highly feasible and an effective solution for optimizing village administration services.

Keywords: *Village Administration, Agile Scrum, Decision Tree, Automatic Numbering, System Usability Scale.*