

## **ABSTRACT**

### **DESIGN AND DEVELOPMENT OF A WEB-BASED POPULATION ADMINISTRATION INFORMATION SYSTEM USING EXTREME PROGRAMMING METHOD**

*(Case Study: Bantarsoka Village)*

by

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*Bantarsoka Village, located in West Purwokerto District, Banyumas Regency, urgently needs an effective population data management system to support administrative processes. A population data management system is required to easily manage resident data, assist in tracking resident records, and simplify the data collection process. Currently, the village staf stores resident data in Word and Excel documents, leading to difficulties and delays in reporting and archiving population data such as Household Head (KK) data, Resident Data, Newcomer Data, Death Data, Birth Data, and Migration Data. To address this issue, a population administration website for Bantarsoka Village will be designed using the Extreme programming method. This system aims to assist village staf in recording and managing resident data. The system design employs Unified Modeling Language (UML) for modeling and Black box and White box methods for system testing. The system's code development uses the Laravel framework. The resulting system effectively manages population administration in Bantarsoka Village, with black box testing results scoring 100% and White box Testing yielding a Cyclomatic complexity and Independent Path calculation of 27, which were successfully executed.*

**Keywords:** *Extreme programming, Data Management System, Population Administration, Website*