

ABSTRACT

IMPLEMENTATION OF THE SHA-256 ALGORITHM IN AN INVENTORY DATA APPLICATION USING THE SCRUM METHOD (CASE STUDY KARYA DUTA ELECTRIC)

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Karya Duta Electric is a company in the industrial sector that sells electronic equipment. In its operational processes, data collection is still done manually using paper; which can hinder the process due to the potential for losing records or discrepancies between the actual data and the recorded data. This research aims to design and build an Android-based goods data collection system using the Scrum method to solve the problems in the existing system at Karya Duta Electric. The Scrum method was chosen for its ability to support structured software development. The application provides multi-user login features, goods data recording, goods data management, and goods data recapitulation in PDF format. This system was also designed using Firebase to maintain the security of the goods data and minimize data loss for administrators. The results of black box testing and system efficiency testing showed a 100% success rate from 16 black box tests and a 25.53% increase in efficiency. These results are expected to be a significant solution in improving the productivity of Karya Duta Electric employees.

Keywords: *Android, Flutter, Inventory data system, Mobile, Scrum*