

## ABSTRACT

### DESIGN AND BUILDING OF A LAUNDRY SERVICE ORDERING SYSTEM (E-LAUNDRY) BASED ON DISTANCE AND CLOSEST ROUTE USING DIJKSTRA METHOD

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In this day and age, laundry services are sought after by consumers because they can reduce household work. However, there are still many laundry services that use manual systems such as recording, payment, and promoting laundry. On the other hand, consumers also need to get information regarding fast laundry services and can also measure the distance to places mobile laundry service at home. this research purpose was to design and implement a mobile web-based laundry service as a solution to optimize the laundry process. The system development method used was Rapid Application Development (RAD.) RAD method is a method that focuses on Rapid application development through repeated iterations and feedback. It consists of several stages, namely the requirements planning stage, the user stage design, the construction stage, and the cutover stage. At the required age, a survey would be carried out to find out user needs and preferences for laundry services. Then, based on the survey results, the system is designed with the following features allows users to place orders, monitor laundry status, online payments, and leaving reviews. The system developed has been integrates various features that allow users to monitor the status real-time laundry, make online payments and provide feedback come back. Thus, it is hoped that this laundry service can be a solution effective in improving the quality of laundry services and meeting needs users are increasing in terms of affordability, security, and efficiency time. The test results showed that the system developed was capable make it easier for consumers to find the closest route from several laundry service places, making it easier to convey prices and process transactions online. Based on this research simulation results, 90% got a satisfactory response from laundry users.

**Keywords:** Laundry, Rapid Application Development, Dijkstra Method.

