

ABSTRACT

PT Kereta Cepat Indonesia China (KCIC) has launched the Frequent Whoosher Card (FWC) as a loyalty card for Whoosh train passengers. From November 2024 to March 2025, a total of 7,300 cards were sold. However, the recording process is still carried out manually using spreadsheets, which poses risks such as data entry errors, negligence in the quota redemption process, and delays in reporting. To address these issues, a web-based application was developed to manage purchase registration, travel quota redemption, and sales reporting. The current system was analyzed using a Business Process Model and Notation (BPMN) As-Is diagram and a mapping of functional business areas. Subsequently, system development was designed using a BPMN To-Be diagram along with proposed business functional area modeling. The system design employed several UML diagrams, including a use case diagram to describe interactions between the operator (as the actor) and the system, an activity diagram to depict the flow of activities in a use case, a class diagram to illustrate relationships between classes, a sequence diagram to show object interactions within a use case, and an ER diagram for data modeling. The system was developed using Laravel 10 as the framework, PHP for back-end development, and MySQL as the database. Implementation results show that the application effectively supports operator tasks in managing FWC through features such as passenger data registration, a structured quota redemption process, and automated, real-time sales reporting.

Keywords: *frequent whoosher card, registration, quota redemption, web-based application, sales reporting.*