

ABSTRACT

IT asset inventory management at Kereta Cepat Indonesia China (KCIC) Station which is still done manually creates obstacles in the form of long recording time, difficulty in finding information, and low data accuracy. This research aims to build an “Inventory Management System” website to overcome these problems with the main focus on implementing the interface on the website. The system is built using HTML, CSS, native JavaScript, and PHP, and is equipped with the main features of asset management and CRUD (Create, Read, Update, Delete) functionality for user management with role-based access rights. Functionality testing is done using black-box testing method with the results showing all features such as login validation and user access rights restrictions run as designed. Google Lighthouse to measure web performance by showing performance results on the main pages shows very good results, with Performance scores reaching 98-100, Total Blocking Time (TBT) 0ms, and Interaction to Next Paint (INP) on form interactions of 60ms. These results prove that the implemented system is not only functional, but also has fast and responsive performance, so that it can be a solution to support IT asset inventory management at KCIC stations.

Keywords: IT Asset Management, Inventory Website, Interface, CRUD, Google Lighthouse