
Perancangan Rekayasa Kebutuhan pada Aplikasi Fraud Deterrence Propeller V.2 Menggunakan Loucopoulos dan Karakostas Iterative Model

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Abstract

Financial statement fraud is a significant threat that can damage an organization's reputation and cause financial losses. The previous version of the Fraud Deterrence Propeller (FDP) application had limitations as it only used a single detection model. This research aims to conduct requirements engineering for the development of FDP version 2 to create a more reliable fraud detection and prevention system. The research method used is the Loucopoulos and Karakostas iterative model, chosen for its ability to flexibly manage changing requirements through recurring cycles of elicitation, specification, and validation. The elicitation process was conducted through structured interviews with the project owner to gather system requirements. The specification phase translated these requirements into visual models using the Unified Modeling Language (UML). The final phase consisted of internal and external validation to ensure the design's alignment with the requirements. The result of this research is a validated Software Requirement Specification (SRS) and Software Design Document (SDD). This process successfully formulated 12 updated functional requirements (FR) for Admins and 8 for Staff, as well as identifying 15 non-functional requirements (NFRs), which were prioritized using the MoSCoW method. All requirements were successfully modeled with UML diagrams and validated through two sessions with the project owner, confirming that the system design is aligned with business objectives.

Keywords: requirements engineering, system modeling, fraud, fraud deterrence, fraud detection, UML, Loucopoulos and Karakostas Iterative Model, MoSCoW
