

ABSTRACT

A helpdesk system functions as a support mechanism designed to handle complaints, requests, or technical issues from users within an organization. The system aims to improve service efficiency and ensure organized communication. However, at the Academic and Student Administration Services (LAAK), the complaint handling process is still conducted manually through online messaging, resulting in undocumented and difficult-to-track reports. In this final project, the researcher presents a model-based approach using Orthogonal Variability Modeling (OVM), one of the methods from Software Product Line (SPL), to identify common feature variability as a guide for how helpdesk systems can be built in a general form. This approach utilizes variability models to manage and configure systems specifically based on organizational needs. To ensure the model's alignment with system requirements, a traceability matrix evaluation was conducted, showing that all functional and non-functional requirements have been successfully modeled. This approach is expected to support organizations in building a well-structured help desk system. A case study at LAAK is used to illustrate the application of this approach.

Keywords: *helpdesk system, software product line, orthogonal variability modeling, traceability matrix*