

Penggunaan Ulang Model EFSM Aplikasi PeduliLindungi pada Pengujian Aplikasi SATUSEHAT dengan Metode MBT

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Abstract

On 2023, the Government of Indonesia announced the change of PeduliLindungi application to SatuSehat, with the addition of features that have been integrated with Electronic Medical Records (RME). In this research, the concept of model reuse is applied to facilitate the creation of test models on the same features between PeduliLindungi and SatuSehat, namely Linked Profile and Covid-19 Vaccine. In applying the reuse model, the method template and edge template strategies are used to adjust to the evolution of the model that occurs in the SATUSEHAT application, in the edge template or second iteration there are additional vertices and edges on the Linked Profile and Vaccine features. By combining the number of vertices and edges, the overall similarity percentage is around 79.81% on the Linked Profile feature, showing the efficiency of modeling with a reuse model of around 20.19%. Testing on SatuSehat using Altwalker tools with Random and Weighted Random algorithms shows high coverage achievements, especially on vertex, these achievements show the effectiveness of the reuse model. Comparison with previous research on PeduliLindungi shows an increase in coverage rate, especially on features that apply the reuse model. This research illustrates the success of the reuse model concept in accelerating the development of test models and increasing coverage in applications where changes occur.

Keywords: Altwalker, Model Reuse, Extended Finite State Machine (EFSM), Model Based Testing (MBT), SATUSEHAT.
