

Refaktor Penerapan Multilevel Delta pada Produk Payment Gateway dan Plugin WinVMJ Composer, serta Porting Plugin WinVMJ Composer ke Platform MacOS = Multilevel Delta Application Refactor on Payment Gateway Product and WinVMJ Composer Plugin, and Porting WinVMJ Composer Plugin to MacOS Platform

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Abstrak

PRICES-IDE digunakan dalam pengembangan perangkat lunak berbasis SPLE (Software Product Line Engineering), dengan WinVMJ Composer sebagai plugin untuk menghasilkan backend dan Payment Gateway sebagai salah satu product line yang mengimplementasikan multilevel delta. Pembentukan produk yang mengimplementasikan multilevel delta masih dilakukan secara manual. WinVMJ Composer juga belum dapat berjalan pada sistem operasi MacOS yang merupakan sistem operasi terbanyak kedua yang digunakan oleh pengembang. Penelitian ini bertujuan sebagai solusi atas permasalahan tersebut. Implementasi multilevel delta dilakukan dengan melakukan refaktor pada struktur folder produk Payment Gateway dan modifikasi penerapan code generation pada WinVMJ Composer. Porting plugin WinVMJ Composer ke MacOS dilakukan dengan mengubah template scripts yang digunakan untuk menjalankan dan melakukan deploy program agar sesuai dengan sintaks Shell Script. Penelitian ini berhasil mengimplementasikan multilevel delta pada produk Payment Gateway dan WinVMJ Composer, dengan kekurangan berupa belum dapat dilakukan pengecualian model pada endpoints binding dalam product class. Porting WinVMJ Composer ke MacOS juga berhasil dilakukan, ditemukan bahwa aplikasi juga dapat berjalan pada platform Linux. Proses pembentukan serta deploy produk dapat berjalan dengan baik pada platform Windows, Linux, dan MacOS.

.....PRICES-IDE is used in the development of software based on SPLE (Software Product Line Engineering), with WinVMJ Composer as a plugin to generate the backend and Payment Gateway as one of the product lines that implements multilevel delta. The formation of products that implement multilevel delta is still done manually by the developer. WinVMJ Composer also cannot run on MacOS, which is the second most widely used operating system by developers. This research aims to provide solutions to these problems. The implementation of multilevel delta is done by refactoring the folder structure of the Payment Gateway product and modifying the implementation of code generation in WinVMJ Composer. Porting the WinVMJ Composer plugin to MacOS is done by changing the template scripts used to run and deploy the program to match the Shell Script syntax. This research successfully implements multilevel delta in the Payment Gateway product and WinVMJ Composer, with the drawback that exceptions cannot be made for models in endpoints binding in the product class. Porting WinVMJ Composer to MacOS has also been successfully done and it is also found that the application can run on Linux. The product generation and deployment process can run smoothly on Windows, Linux, and MacOS.