

## INTISARI

### **ANALISIS PERBANDINGAN PERFORMA METODE PADA PENGUJIAN *BLACK BOX EQUIVALENCE CLASS PARTITION* DAN *STATE TRANSITION* PADA APLIKASI VISIT TECHNO**

Hubertus Rino Augenio

19/441226/SV/16578

Pengujian berperan dalam menentukan kelayakan dari perangkat lunak yang dikembangkan. *Black-box testing* merupakan salah satu metode pengujian yang dilakukan untuk mengetahui fungsionalitas perangkat lunak. PT Cipta Sedya Digital mempunyai lini layanan digital dengan nama Techno Center. Techno Center sedang mengembangkan aplikasi peminjaman ruang dengan nama Visit Techno. Pada proses pengembangan Visit Techno pengujian dilaksanakan secara manual dan masih terdapat kekurangan karena belum dilakukan secara menyeluruh pada semua fitur. Kurangnya proses identifikasi metode pengujian yang sesuai menyebabkan pengujian yang dilakukan sebelumnya tidak berjalan dengan optimal. Proyek akhir ini dilaksanakan untuk memberikan solusi kepada Techno Center dalam meningkatkan proses pengujian agar lebih efektif. Proyek akhir ini menggunakan analisis perbandingan pengujian *black-box Equivalence Class Partition* (ECP) dan *State Transition* (ST) pada pengujian aplikasi Visit Techno. Implementasi pengujian dilaksanakan dengan *automation testing* menggunakan Katalon Studio. Hasil penelitian yang didapatkan pada perhitungan *Test Case Failed* ST 13,51% dan ECP 10,89%. *Test Case Executed* ST 100% dan ECP 95,05%. *Test Case Not Executed* ST 0% dan ECP 4,95%. *Rate of Fault Detection* ST 10,8/jam dan ECP 14,4/jam. *Severity Point* ST mendapat skor level 7 (*medium*) dan ECP pada skor level 5 (*low*). *Average Percentage Fault Detection* ST 0,72 dan ECP 0,67. Berdasarkan hasil tersebut ST lebih efektif dibandingkan ECP untuk digunakan dalam pengujian aplikasi Visit Techno. Hasil penelitian diharapkan memberikan wawasan untuk meningkatkan efisiensi pengujian *black-box* aplikasi Visit Techno dan aplikasi sejenis yang sedang dikembangkan PT Cipta Sedya Digital.

Kata Kunci : pengujian perangkat lunak, *black-box testing*, *Equivalence Class Partition*, dan *State Transition*

## ABSTRACT

### **COMPARATIVE ANALYSIS OF PERFORMANCE METHODS BLACK BOX TESTING EQUIVALENCE CLASS PARTITION AND STATE TRANSITION ON VISIT TEHCNO WEBSITE**

Hubertus Rino Augenio

19/441226/SV/16578

*Testing plays a crucial role in determining the feasibility of developed software. Black-box testing is one of the testing methods used to assess the functionality of the software. PT Cipta Sedy Digital provides digital services under the name Techno Center. Techno Center is currently developing a room reservation application called Visit Techno. In the development process of Visit Techno, testing is conducted manually, and there are still shortcomings as it has not been comprehensive across all features. The lack of identification of suitable testing methods has led to suboptimal testing conducted earlier. This final project aims to provide a solution to Techno Center to enhance the testing process for greater effectiveness. The final project utilizes a comparative analysis of black-box testing methods, namely Equivalence Class Partition (ECP) and State Transition (ST) testing, for the Visit Techno application. The testing implementation is carried out using automation testing with Katalon Studio. The research results indicate that the Test Case Failed rate is 13.51% for ST and 10.89% for ECP. Test Case Executed is 100% for ST and 95.05% for ECP. Test Case Not Executed is 0% for ST and 4.95% for ECP. The Rate of Fault Detection is 10.8/hour for ST and 14.4/hour for ECP. Severity Point is at level 7 (medium) for ST and level 5 (low) for ECP. The Average Percentage Fault Detection is 0.72 for ST and 0.67 for ECP. Based on these results, ST is found to be more effective compared to ECP for testing the Visit Techno application. The research findings are expected to provide insights to enhance the efficiency of black-box testing for the Visit Techno application and similar applications being developed by PT Cipta Sedy Digital.*

*Keywords: software testing, black-box testing, Equivalence Class Partition, State Transition*