

ABSTRAK

Muhammad Akbar Ababil, 2025. **Pengembangan Fitur Rekomendasi Rute Untuk Tim Sales Pada Aplikasi Sales Monitoring.** Tugas Akhir, Program Studi Informatika (S1), Universitas Bhinneka Nusantara, Pembimbing: Chaulina Alfianti Oktavia, Co. Pembimbing: Syntia Widyayuningtias Putri Listio.

Kata kunci: Rekomendasi Rute, Optimisasi Rute, *Sales Monitoring*, Aplikasi *Mobile*, Mapbox API

Penelitian ini bertujuan mengembangkan fitur rekomendasi rute untuk tim sales pada aplikasi sales monitoring guna mengatasi inefisiensi operasional akibat penentuan rute kunjungan toko yang masih dilakukan secara manual. Permasalahan tersebut menyebabkan pemborosan waktu, tenaga, serta biaya operasional kendaraan. Hipotesis awal penelitian ini menyatakan bahwa penggunaan Mapbox Optimization API v1 dapat mengoptimalkan urutan kunjungan toko secara lebih efisien. Analisis dilakukan menggunakan pendekatan deskriptif dan komparatif, dengan membandingkan efektivitas rute sebelum dan sesudah penerapan fitur rekomendasi menggunakan Mapbox Optimization API v1. Hasil penelitian menunjukkan bahwa fitur rekomendasi rute mampu mempersingkat total jarak tempuh secara signifikan, dengan rata-rata efisiensi mencapai 44,38% berdasarkan 20 sampel perjalanan. Aplikasi mobile dikembangkan menggunakan Kotlin pada platform Android 14 dan diintegrasikan dengan backend melalui API, sehingga mampu meningkatkan efisiensi distribusi produk. Saran pengembangan lebih lanjut mencakup penambahan fitur login biometrik, pengembangan deteksi fake GPS, peningkatan antarmuka peta, serta pemanfaatan versi terbaru Mapbox Optimization API.

ABSTRACT

Muhammad Akbar Ababil, 2025. **Development Of Route Recommendation Feature For Sales Team In Sales Monitoring Application**. Final Project, Study Program Informatics S1, Bhinneka Nusantara University, Advisor 1: Chaulina Alfianti Oktavia, Advisor 2 : Syntia Widyayuningtias Putri Listio.

Keyword: Route Recommendation, Route Optimization, *Sales* Monitoring Application, *Mobile* Application, Mapbox API.

This study aims to develop a route recommendation feature for the sales team in a sales monitoring application to address operational inefficiencies caused by the manual determination of store visit routes. This issue results in wasted time, effort, and vehicle operating costs. The initial hypothesis of the study is that the use of the Mapbox Optimization API v1 can optimize the order of store visits more efficiently. The analysis was conducted using a descriptive and comparative approach by evaluating route effectiveness before and after the implementation of the Mapbox Optimization API v1-based recommendation feature. The results show that the route recommendation feature significantly reduces total travel distance, with an average efficiency improvement of 44.38% based on 20 travel samples. The mobile application was developed using Kotlin on the Android 14 platform and integrated with the backend via API, enhancing product distribution efficiency. Further development is recommended, including the addition of biometric login, fake GPS detection, improved map interface, and the use of the latest version of the Mapbox Optimization API.