

## **ABSTRACT**

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### **GEOGRAPHIC INFORMATION SYSTEM ANDROID-BASED APPLICATION FOR FINDING CAFES IN MARGONDA RAYA STREET DEPOK USING LOCATION BASED SERVICE (LBS) AND FIREBASE.**

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(xiv + 94 + attachments)

Margonda Raya Street Depok is the main road in the city of Depok which has a length of approximately 5 KM stretching from akses UI and ending towards Tugu Margonda, the large selection of shops especially cafes, make sometimes people confused about finding the nearest cafe, therefore making an app that is aware of the user's location. Search for cafe locations that are most with users. By using Location Based Service the application can get the coordinates of the user's device, use the Haversine Formula to calculate the distance between the user and the shops in the application and sort them with the closest list view. Using the Software Development Life Cycle method to create mobile applications and assisted with the Google Maps API for displaying maps. This research produces an android-based application that can run according to its function, namely getting the user's location, and getting the distance between the closest stores. The application has been tested using several android devices such as POCO X3 NFC, Samsung S9+, Oppo A3s and Samsung A10 with the result that the application can be installed and can get the distance between the user and the store. Obtained System Usability Scale 86.93% from 30 respondents.

### **Bibliography (2014 - 2022)**