Universiti Teknologi MARA

Melaka Places of Interest (MPOI) Using Geofencing

Aina Hanan Binti Mat Zaini

**Thesis submitted in fulfilment of the requirements for
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By

AINA HANAN BINTI MAT ZAINI
2017412254

This thesis was prepared under the supervision of the project supervisor, Miss Fadilah Ezlina Binti Shahbudin. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfilment of the requirements for the degree of Bachelor of Computer Science (Honours).

Approved by

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Miss Fadilah Ezlina Binti Shahbudin

JULY 11, 2020

STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledge in accordance with standard referring practices of the discipline.

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Aina Hanan Binti Mat Zaini
2017412254

JULY 11, 2020

ABSTRACT

Smart cities improve sustainability, make cities more effective and efficient. In addition, smart cities can help in managing disease outbreaks and pandemics. Nowadays, people are worried to be in a crowded place, especially in places of interest because of COVID-19 pandemic. Most tourists also would avoid winding up in traffic congestions so as to not waste time on the road. Hence, planning a trip is very important. Tourist attractions include historical places, museums, buildings and structures, etc. Melaka Places of Interest (MPOI) is a mobile application that makes use of geofencing technology to help people, especially tourists to filter places of interest in Melaka based on categories, plan trips, and update the number of people at the specified location. Users can get current location info and update the info when entering and exiting the location. MPOI was developed based on a modified Waterfall model which consists of analysis, design, implementation and testing. Requirements were gathered and analyzed. Based on the requirements, the application was designed and developed. The application was then tested to ensure that it conforms to the requirements and produce the expected results. The results show that the application is able to notify the user when they are entering and exiting the places of interests. In addition, users are able to update the info when entering and exiting the area in order to allow others to view the current number of people in that area. In addition, users can also plan their trip by filtering the places of interest based on a specific category.

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