

UNIVERSITI TEKNOLOGI MARA

**MOBILE APPLICATION FOR VEHICLE FINDER
USING GPS TRACKER**

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**Thesis submitted in fulfilment of the requirements for Bachelor of
Information Technology (Hons.) Faculty of Computer and
Mathematical Sciences**

JULY 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 acknowledged in accordance with the standard referring practices of the discipline.



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JULY 17, 2020

ABSTRACT

Sometimes, when parked vehicle at the large or multilevel parking lots for quite a long time, people tends to forget where they have been parking their vehicle exactly. It can be a waste of time to find their vehicle on large or multilevel parking lots. So that, as a way to solve the problem a vehicle finder application was designed and developed for finding a vehicle at parking lots by using GPS tracker device. The objective of this research is to create a mobile application for vehicle finder using GPS tracker. The GPS tracker device was embedded inside the vehicle which its position was determined and tracked in real time. Besides, this research also using technologies such as Google Map Android API, Global Positioning System and Global System for Mobile Communication (GSM) which are one of common technologies that been used for vehicle tracking. Google Map Android API was used to display the map on the application, GPS technology was used to pin point the location of user and his/her vehicle, meanwhile GSM technology was used to transmit and update the location from GPS tracker device to the cloud Firebase Real Time database. The research was tested by using Usability Testing and Functionality Testing to ensure the user can performing certain task in an effort to measure the use of the application easily, effectively and efficiently and also to evaluate the function in the application by providing appropriate input and checking the performance against the functional requirements. Based on the usability and functionality that has been conducted, the positive responses from respondents are proven that this vehicle finder application can be used to overcome the problems of finding or tracking vehicles at the parking lots.

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