Vehicle Assistance Android Application (V3A)

Muhammad Hafiz Ramli, Mohd Arfian Ismail

Fakulti Sistem Komputer & Kejuruteraan Perisian, Universiti Malaysia Pahang, Lebuhraya Tun Razak, 26300 Gambang, Pahang, MALAYSIA hafizramli99@gmail.com, arfian@ump.edu.my

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Introduction

Technology is one of the most essential things to have for a person who lives in a modernization era. Hence, we developed the project called as Vehicle Assistance Android Application (V3A). The project was developed for the android user. This application was created to provide a convenience information [4] to the road user. As we all know, not everyone would save tow truck contact number in their phone, and even if they had saved [1][3], it might not be in their range of location.

Hence, this apps helps in providing the contact information of any towing company [12], presence within the range of the user's location. With V3A, these problems were able to be solved. The objectives of this project is to study the existing Vehicle Assistance System that is available to be used in Malaysia, to design a vehicle assistance apps for a new way of interaction between the road user and towing company in a more convenient environment, as well as to develop a vehicle assistance apps for android user [2]. This apps was developed using the Rapid Application Development methodology as it is the most suitable methodology that can be used to develop the apps [10]. In conclusion, the





application will give benefit to the road user in the occurrence of any emergency related to their vehicle that need to be solve immediately.

Content

It is a come-to-rescue kind of application [3]. Provide assistance while you are on the road, especially if there is any occurrence of accident or vehicles breakdown. It waste no time as it lists out all the available towing service provider, along with the time it takes for them to reach your place, and it is so easy to get in touch with them. Traditionally, once a road user need an assistance, they need to make a phone call, but with this apps, everything will be at the tip of their fingers. It is not only beneficial for the road user, but it also provides a profitable platform for the towing service provider. V3A was created using the Phonegap framework, Apache Cordova and MySQL database [2][5]. It comes along with a GPS mapping [11], to easily track and trace of the user real-time location [7]-[9]. In addition, it also has a feature of push notification, in which it enables user and the towing service provider to be notified [6]. It is crucial to the community as in the meantime, there is no apps that provide this kind of platform that could ease both the towing service provider and the road user. Most of the current apps was generated by particular towing company, and both user still encounter lots of hindrance. V3A will be an open-eve to our community in developing more useful mobile apps, especially in the field of vehicle assistance.



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Reference

- AA Auto Assist Android Apps on Google Play. (n.d.).
 Retrieved March 25, 2016, from https://play.google.com/store/apps/details?id=com.asiaassistance.autoassist
- Adobe PhoneGap. (n.d.). Retrieved August 4, 2016, from http://docs.phonegap.com/references/developer -app/
- Auto360 | Malaysia's Leading Automotive Directory. (2015). Retrieved March 8, 2016, from http://auto360.my/aboutus
- Bootstrap Documentation. (n.d.). Retrieved June 4, 2016, from https://v4-alpha.getbootstrap.com/getting-started/introduction/
- C. S. (n.d.). Cordova-plugin-geolocation. Retrieved October 9, 2016, from https://cordova.apache.org/docs/en/latest/refere nce/cordova-plugin-geolocation/
- Firebase Documentation. (n.d.). Retrieved September 29, 2016, from https://firebase.google.com/docs/reference/js/
- Global Positioning System. (n.d.). Retrieved March 1, 2016, from https://en.wikipedia.org/wiki/Global_Positioning_System
- Google Maps Android API | Google Developers. (n.d.).

 Retrieved May 01, 2016, from https://developers.google.com/maps/documenta tion/android-api/
- Google Maps Distance Matrix API | Google Developers. (n.d.). Retrieved April 26, 2016, from





https://developers.google.com/maps/documentation/distance-matrix/

Martin, J. (1991). Rapid application development (Vol. 8). New York: Macmillan

Movable Type Scripts. (n.d.). Retrieved May 01, 2016, from http://www.movable-Apress.type.co.uk/scripts/latlong.html

Svennerberg, G. (2010). Beginning Google Maps API 3.

Tow n Assist. (2015). Retrieved March 25, 2016, from http://www.tow-n-assist.com/

