

Traveling Assistant Mobile Application Using Location-Based Service

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ABSTRACT

Sri Lanka is a major tourist destination which has several historical places, rivers, waterfalls, and shrines, as well as many other places of interest. Currently, several mobile apps have been added to the Google Play Store for the convenience of these travelers, but these apps do not meet the latest needs of travelers. As a result of this project, created a new mobile application called “Travel Lanka” that addresses the issues and new needs of the travelers. This project follows the Agile software development methodology. Travel guidance is provided by displaying data on a google map view [1]. People can find the places for food and drink, shopping, and service places using Google maps. But it has no method to find a nearby travelling place. This application automatically suggests and shows nearby places on the map that can be travelled based on user location using the have sine formula [2]. This application can automatically change the nearby places when the user moves from location to location. Also, users can find all places in a particular district or province and find any places by using place names. Travelers can filter places using place types as waterfalls, parks, mountains, beaches and so on. With the suggested places, users can view some important details about the places and receive navigation instructions. In addition to that, this mobile application facilitates users to view compass, use the suggested transport facility, currency converter and nine major languages are provided by this application. All the functions were tested using unit testing and integrated testing, Basically, how the user interfaces layout changes under different screen sizes was tested when creating this “Travel Lanka” application. This app is designed to suit different screen sizes of different mobile phones. A responsive layout has been created to display this application correctly on all types of phones. For this, testing was done using the package called “Device Preview” [3]. This Device Preview package helped to test various screen sizes, change device orientation, check background running capability, and many more. Such facilities are not available for use in a single mobile application currently offered to the tourism industry in Sri Lanka. A major challenge for travelers has to install and use the number of applications to get these features. Travel Lanka app combines all general features available in other apps. Feedback and user evaluations were collected and considered under the categorizing as usability, accessibility, accuracy, and correctness. Positive user feedback and user evaluations show the success and the usefulness of the application for the users.



Keywords: *Google Map, Travel Lanka*

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