INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT

OPEN ACCESS JOURNAL

Vol 13, Issue 3, (2024) E-ISSN: 2226-6348

Orang Asli Tourism Geolocation Service Mobile Application

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To Link this Article: http://dx.doi.org/10.6007/IJARPED/v13-i3/19526 DOI:10.6007/IJARPED/v13-i3/19526

Published Online: 28 August 2024

Abstract

The Orang Asli groups in Malaysia have a rich culture and history that is sometimes missed by tourists. The lack of visibility and access to information about these villages might make it difficult for tourists to plan their journeys and gain a full sense of the local culture. The main objective of this project is to design and develop an application for the Orang Asli Tourism Geolocation Service Mobile Application by using the Mobile Application Development Lifecycle (MADLC). The Orang Asli Tourism Geolocation Service Mobile Application aims to promote tourism in indigenous communities. The software informs tourists about indigenous groups and their locations, allowing them to effortlessly monitor their destinations. In addition, tourists can write ratings of the communities they visit, allowing other tourists to make more informed decisions regarding their itinerary. The application includes precise maps and geolocation features to help tourists traverse the area and identify the destinations they want to visit. Future work involves the extension of the project into foreign languages of the tourists.

Keywords: Orang Asli, Tourism, Geolocation Service Mobile Application, Indigenous Communities.

Introduction

Malaysia currently has a limited number of travel applications that offer guidance and information (Md Saad & Mohamad Noor Azam, 2024). Creating a geolocation-based mobile application specifically for Orang Asli tourism could greatly improve both the accessibility and promotion of indigenous cultural sites in the country. The applications would consolidate tourism data, employ geolocation features to direct visitors, and possibly incorporate virtual reality to enhance the user experience. This strategy fits with current tourism technology trends and seeks to fill the existing void in centralized tourism information in Malaysia.

Geolocation technology plays a vital role in contemporary tourism applications by enabling users to locate nearby attractions based on their current position (Sarasa-Cabezuelo, 2023).

This technology has been effectively utilized in numerous tourism applications, delivering lists of nearby landmarks and comprehensive details about each site (Sarasa-Cabezuelo, 2023). A geolocation-based application could similarly direct tourists to indigenous cultural sites, providing navigation and detailed information, akin to the systems used for tourism in Bintan Island (Nurul Huda & Saputra, 2024).

A well-designed travel application can boost domestic tourism by providing detailed information about local attractions, accommodations, and services. This not only facilitates travel planning but also encourages exploration and appreciation of local culture and heritage, which is essential for promoting Orang Asli tourism (Zaifri, Khalloufi, Kaghat, Benlahbib, Azough, & Zidani, 2023).

While geolocation services offer many advantages, challenges such as GPS signal availability and privacy concerns persist. Addressing these issues is important to fully leverage the potential of geolocation technologies in various applications. Nonetheless, the use of real-time monitoring and location-based data still offers significant potential for enhancing user experiences in a range of fields.

Method

According to Vithani & Kumar (2014), the Mobile Application Development Lifecycle (MADLC) has been used in developing Android mobile applications. This MADLC lifecycle includes the following phases: Identification, Design, Development, Prototyping, Testing, Deployment, and Maintenance which were adapted into the context of this research.

Results and Discussions

A. Storyboard

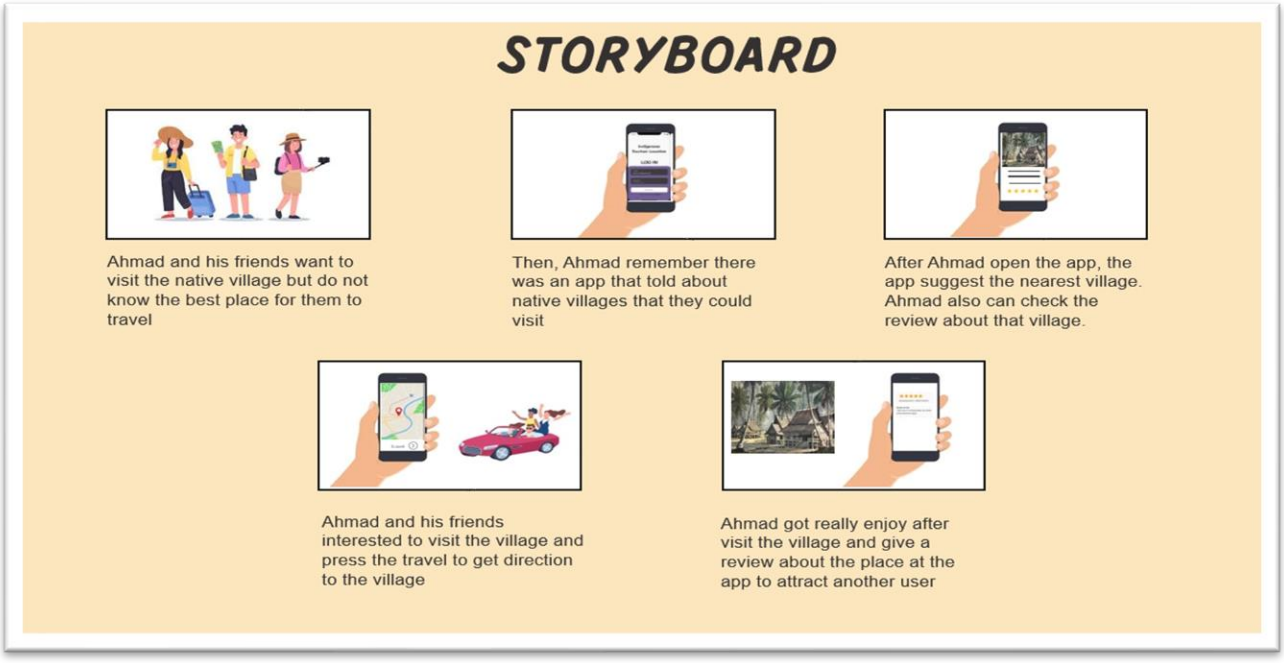

Fig. 1 Storyboard of Orang Asli Tourism Geolocation Service mobile application

Fig. 1 depicts the storyboard of the Orang Asli Tourism Geolocation Service mobile application

B. Flowchart of the Orang Asli Tourism Geolocation Service Mobile Application

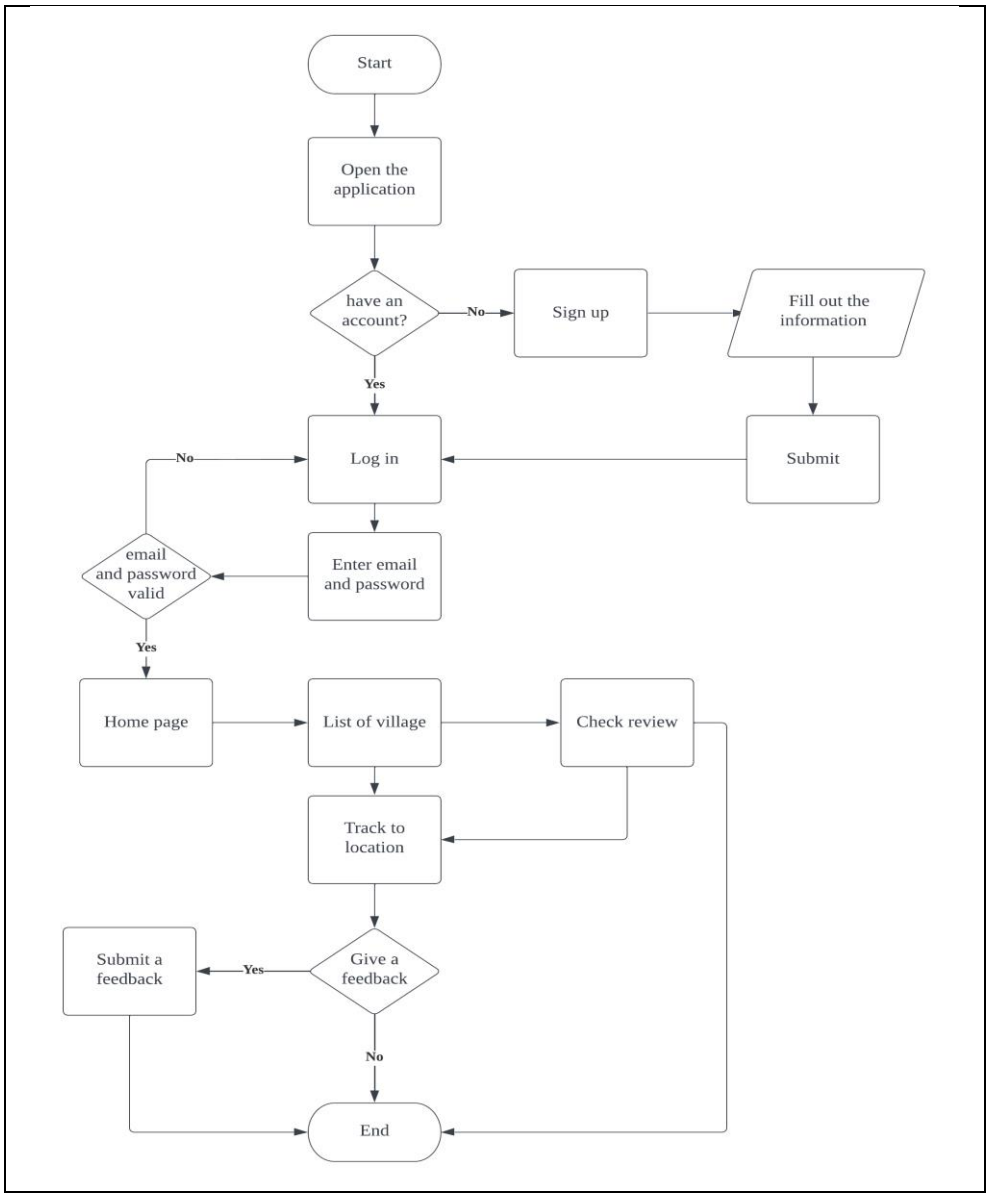

Fig. 2: Application Flowchart

Fig. 2 shows the flowchart of the Orang Asli Tourism Geolocation Service mobile application

C. Use Case Diagram

Fig. 3 Use case diagram for the application

Fig. 3 depicts the use case diagram for the application.

D. Prototype of Orang Asli Tourism Geolocation Service Mobile Application

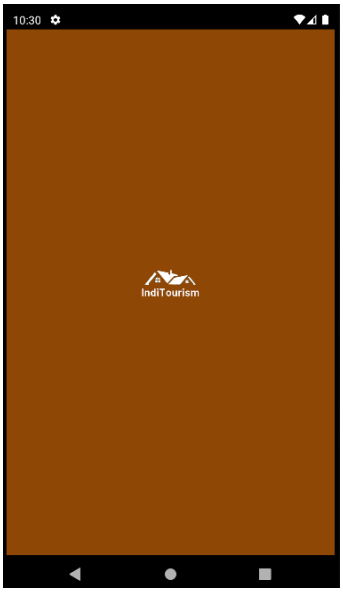

Fig. 4 Splash screen

Fig. 4 shows a splash screen where it has an application logo when the user opens the application. After a few seconds, they will be directed to the login page to sign in purpose.

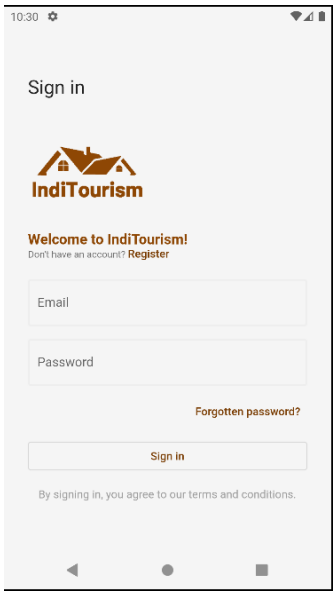

Fig. 5: Sign-in page

Fig. 5 shows the login page after the splash screen. If users don't have an account, they can click the register button and will be directed to the registration page to create a new account. User need to fill in their email and password to register the new account.

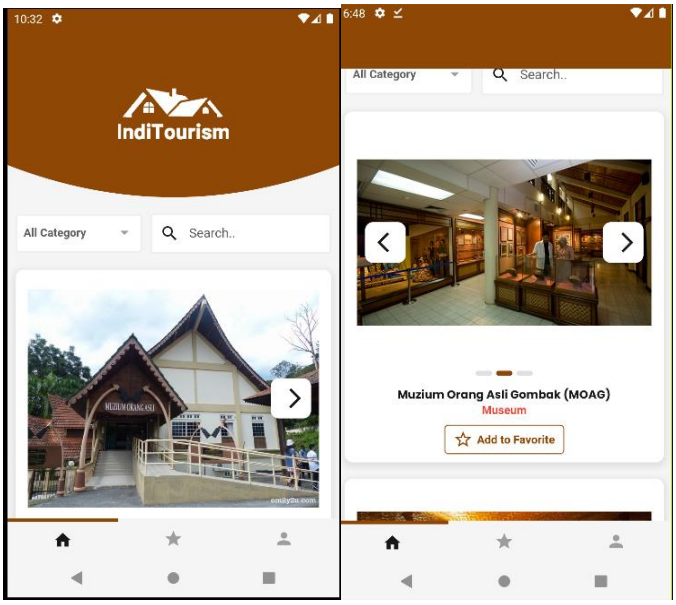

Fig. 6: Homepage

On the homepage (Fig. 6), the user can see the list of villages, libraries, and museums. Users can search the list by category by clicking the button "All Category" if they want to view on village only. The search bar function to be able to search the name of the village. Users are also able to add their favourite village by clicking the button "Add to Favourite" and it will save the village on the favourite page later.

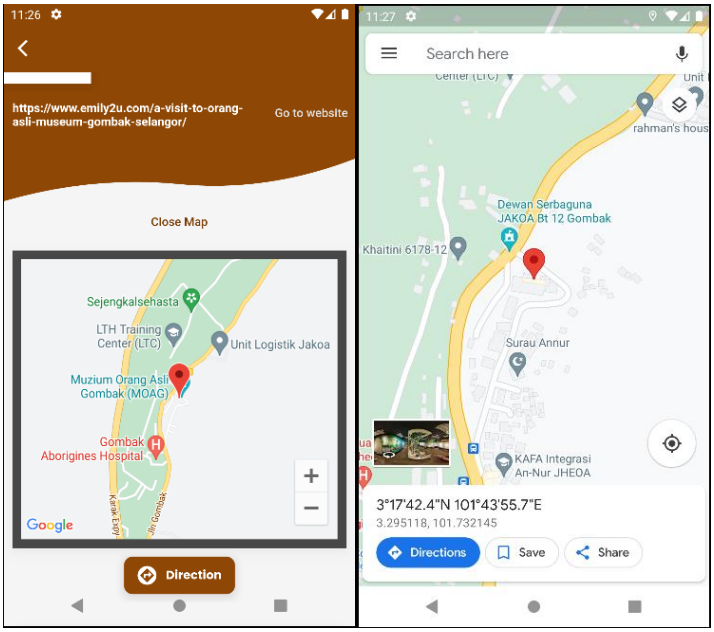

Fig. 7: Directed to Google Maps

Based on Fig. 7, show that users will be directed to Google Maps after they click the "Direction" button. Google Maps will be able to track and navigate the user to the village they want to go to.

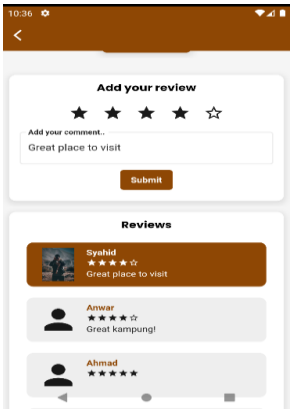

Fig. 8: Review page

On this page, users will be able to see other reviews and ratings about the village. They also can submit their review after visiting the village as shown in Fig. 8.

Conclusion

The design and development of the Orang Asli Tourism Geolocation Service Mobile Application was accomplished. This project will result in a mobile application that delivers a smooth experience for tourists looking for Orang Asli cultural and historical places. The application will be simple to use, quick to load, and dependable, giving tourists accurate and up-to-date information about the locations of Orang Asli villages, museums, and libraries. Future work involves the extension of the project into foreign languages of the tourists.

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