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Hoopla Pocket Location Aware Mobile Application with Augmented Reality

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Abstract—Zoos are one of the significant tourist attractions that provide a good approach in learning and observing animals while engaging with nature. Augmented Reality (AR) is a technology that brings computer-generated content into real world experience in form of text, graphics, audios, and animation. Nowadays, AR technology has been widely used in tourism sector by implementing it together with mobile applications. As Malacca Zoo is one of the famous tourism spots in Malaysia, it is lacking with engagement tools to attract zoo visitors. Besides, based on the result findings from existing tourism applications in Malaysia, these applications currently lack with major shortcomings in user satisfactions and functionality. Thus, Hoopla Pocket Location Aware Mobile Application with Augmented Reality had been designed and developed to cater with these problems. The technology used in this application is a combination of AR technology using Flutter framework and integrated with Firebase Database, Geolocation and Geofencing for better functional use as a responsive mobile application. In addition, User Accepting Testing (UAT) had been conducted and proved that Hoopla Pocket mobile application reach users' satisfactions as an engagement tool for visiting Malacca Zoo and achieve as one of the standard tourism applications in Malaysia. In fact, Hoopla Pocket mobile application will be a good approach for Malacca Zoo and a good standard tourism application in Malaysia.

Keywords— *Augmented Reality (AR), mobile application, Location-Based Services, ZOO, tourism*



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