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LIMITLESS MIND:
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PROGRAM
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ABSTRACTS BOOK

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MyUiTMPERAK APP

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ABSTRACT

Life as a freshman at the university can be an anxious and scary moment for every student because they are not familiar to the new environment. Even though the existence of smartphones equipped with GPS technology can help them cope with this situation, existing mapping service applications such as Google Maps and Waze do not provide comprehensive information on the campus and its surrounding environment. Therefore, MyUiTMPerak app is developed to assist students and visitors to (1) obtain information on campus; (2) identify locations on campus; and (3) navigate to the destination on campus. MyUiTMPerak is an interactive mobile mapping application of the UiTM Perak Branch campus that can be easily installed on every student and visitor smartphone. By using the AppSheet platform, the location and information of every place in UiTM Perak Branch campus are stored to enable this app to show the area within the campus. This mobile app can facilitate new students and visitors to go to the desired place in the campus of UiTM Perak Branch.

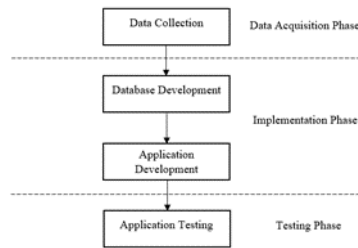**Keywords:** mobile app, mapping application, smartphone

1. INTRODUCTION

The opportunity to further study to a higher level is a dream of every student. However, as a freshman, the experience of being in a new environment can be very stressful and scary. The university campus consists of many buildings and rooms with various names and functions [1]. There are also numerous visitors, guest lecturers, visiting faculty, and others who frequently come to UiTM Perak. Although with the help of smartphones equipped with GPS technology can help new students and visitors navigate to the desired destination in some extent, incomplete information on the campus makes Google Maps and Waze applications less effective. Google Maps and GPS have become indispensable in recent years, with vast amounts of users relying on them for directions [2], but their capabilities have not yet been fully applied to university campuses [3]. A campus map application is a dynamic electronic map that guides individuals around a campus environment. It should have the ability to perform navigational functions, show the user current location, able to identify the user's point of interest (POI) and able to give a little description of those POI and most importantly, it must be user friendly [4]. Therefore, an interactive mobile mapping application of the UiTM Perak campus is developed to overcome this problem. This app can be easily installed on smartphones and can be used on campus. A campus map application is a dynamic electronic map that guides individuals around a campus environment. It should have the ability to perform navigational functions, show the user current location, able to identify the user's point of interest (POI) and able to give a little description of those POI and most importantly, it must be user friendly [4]. Therefore,

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an interactive mobile mapping application of the UiTM Perak campus is developed to overcome this problem. This app can be easily installed on smartphones and can be used on campus.

2. METHODOLOGY

The methodology for this project can be divided into three (3) phases; Data Acquisition Phase, Implementation Phase, and Testing Phase as shown in Figure 1. The Data Acquisition Phase involves primary data collection. The required data such as coordinates, details of the location, and images needed for database development are collected in the field using a mobile data collector.
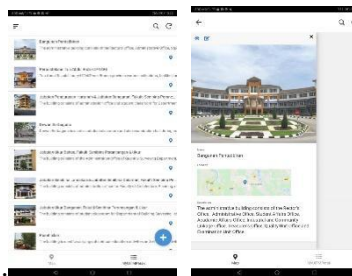

Figure 1. Methodology of the Project

The Implementation Phase includes database development and application development. Data collected during the data acquisition phase is used to develop a database using Google Spreadsheet. For application development, the AppSheet platform is used to create a mobile application. The database is then linked to the application to ensure that the desired data is shown in the application.The Testing Phase is done to ensure the developed application can run smoothly and problems can be fixed.
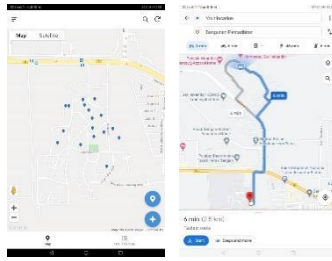
3. RESULT AND DISCUSSION

Information of the UiTM Perak campus is shown in the MyUiTMPerak app (Figure 2). This information can help students and visitors getting to know the area and buildings inside the campus and facilitate the searching of the destination.

Figure 2. Information Shown in MyUiTMPerak App

Figure 3 shows the location of a place on campus. The location is shown in the maps platform and also can be viewed in satellite image mode. This makes it easier for users to identify the location of the destination area. This app also provides a navigation function to the desired destination by using GPS and internet data. User needs to select the desire destination and direction to the location will be shown.

Figure 3. Navigation Function in MyUiTMPerak App

4. CONCLUSION

The number of students and visitors in UiTM Perak is increasing every year. Therefore, a mapping and navigation application is important to navigate them within the campus. MyUiTMPerak is a mobile mapping application that provides information, location, direction and navigation services to user at UiTM Perak campus. There are plans to add indoor location in this application to enable students to find classroom in the building.

REFERENCES

1. Low, W. F., & Lukman, A., (2017). In Campus Location Finder Using Mobile Application Service. AIP Conference Proceeding, 1883. https://doi.org/10.1063/1.
2. Kincaid, J. (2011, March 12). Marissa Mayer: 40% Of Google Maps Usage Is Mobile (And There Are 150 Million Mobile Users). Retrieved from https://techcrunch.com/2011/03/11/marissa-mayer-40-of-google-maps-usage-is-mobile-and-there-are-150-million-mobile-users/.
3. Mihaela, C., Iana, Z., Ionut, C., & Daniel, R., (2013). Campus Assistant Application on an Android Platform. Retrieved from https://www.researchgate.net/publication/261049594.
4. Akinwale, O. A., Halleluyah, O. A., & Moses, B. A., (2016). Development of a Mobile Location-aware Campus Map Application. British Journal of Mathematics & Computer Science, BJMCS.24640. ISSN: 2231-0851.

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PERMOHONAN KELULUSAN MEMUAT NAIK PENERBITAN UiTM CAWANGAN PERAK MELALUI REPOSITORI INSTITUSI UiTM (IR)

Perkara di atas adalah dirujuk.

2.   Pihak Perpustakaan ingin memohon kelulusan YBhg. Profesor untuk membuat imbasan (*digitize*) dan memuat naik semua jenis penerbitan di bawah UiTM Cawangan Perak melalui Repositori Institusi UiTM, PTAR.

3.   Tujuan permohonan ini adalah bagi membolehkan akses yang lebih meluas oleh pengguna Perpustakaan terhadap semua bahan penerbitan UiTM melalui laman Web PTAR UiTM Cawangan Perak.

Kelulusan daripada pihak YBhg. Profesor dalam perkara ini amat dihargai.

Sekian, terima kasih.

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Yang benar