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Virtual Tour Application Of Natural Tourism In Bandar Lampung City Based On Android

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ABSTRACT

Bandar Lampung is the capital of Lampung province on the island of Sumatra, Indonesia. Bandar Lampung has a variety of natural attractions such as beaches, hills, zoos and others. Natural attractions in Bandar Lampung include Wira Garden Tourism Park, Lembah Hijau and Bumi Kedaton. The three tourist attractions have a very large land and a lot of rides. The problem happens is that the visitors can not enjoy all the rides that exist, one of which is due to the limited information provided by the tourist attraction objects. The method used in this study was the *Prototype* method. The software used in building this application was the Android Studio with the *java* programming language, and phpMyAdmin as the database server. Virtual tour of natural tourism applications in the city of Bandar Lampung based on Android provides information to visitors in the form of complete information about rides, 360⁰ panoramic photos of rides and the location of tourist attractions connected with Google maps.

Key Words :Panorama 360⁰,*android studio ,prototype, googlemaps*

1. INTRODUCTION

a. Background of the Problem

The world of tourism is currently very supported by various branches of activity. One of the branches that plays an important role in tourism is the facilities and infrastructure owned by these natural attractions. Some tourism objects that will become the object are Wira Garden Tourism Park, Green Valley Tourism Park and Bumi Kedaton Tourism Park..

In the development of attractions requires a media of information as a means of increasing the attractiveness of visitors who will visit tourist attractions. One of the media used for information dissemination is through websites, because it can be accessed anywhere by users. But sometimes there are still websites that are unresponsive or not compatible if accessed through mobile media. So that the good technology that can be utilized in the development of information media is based on Android [1], by building a virtual tour in it so that it can be more easily accessed by users via mobile phones.

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Virtual tour is a combination of several interrelated panoramic images and displayed with a viewpoint of 360 ° x 180 °. The virtual tour that will be displayed includes visibly visible tourist areas in the form of panoramic photos with 360 ° x 180 ° viewing angles. This virtual tour makes the user as if he were directly in the environment. Based on the problems that occur, this study takes the topic "Application of Virtual Tour of Natural Tourism in the City of Bandar Lampung Based on Android".

b. Formulation of the problem

Formulation of the problem in this research are :

How to design and build a virtual tour of nature tourism applications in the city of Bandar Lampung based on Android?

1. How to implement a virtual tour of nature tourism applications in the city of Bandar Lampung based on Android?

Research Scope

The scope of this research are:

1. The research was conducted at Taman Wisata Wira Garden, Taman Lembah Hijau Taman Wisata and Taman Wisata Bumi Kedaton.
2. The application was built using the help of Google Maps Tools.
3. This application is intended for tourists, tourist objects and the outside community.
4. This application can run on a minimum Android version of Lollipop (5.0+).

Research Objectives

The objectives of this research are:

1. Producing a virtual tour of natural tourism applications in the city of Bandar Lampung based on Android that can show the route of tourists from one tourist attraction to another in order to provide information about the destination location and travel guides for tourists.
2. Applying a virtual tour of nature tourism applications in the city of Bandar Lampung based on android as a medium of information and promotion of attractions in the city of Bandar Lampung.

Benefits of research

The benefits of this research are:

1. Application of virtual tours of natural attractions in the city of Bandar Lampung based on Android can help users in getting information and can see the environment visually or more real, through cyberspace about recreational tourist attractions in the city of Bandar Lampung.
2. This research can be used by outside communities and especially visitors to nature tourism in the city of Bandar Lampung.

2 LITERATURE REVIEW

2.1 Application

An application is a unit of software created to serve the needs of a number of activities such as trading systems, games, community services, advertising, or all processes that are almost done by humans. In a perfect world, the need for activities determines the needs of an application, and the need for applications determines a database [2]

2.2 Virtual Tour

Prasetya (2011) said that virtual tours usually use other multimedia elements such as sound effects, music, narration and text. In simple language, virtual tour is a trip or excursion in a virtual environment. That said, one of the keys to success and at the same time a major component of virtual tour is a panoramic image. Panorama represents a wide display that is unbroken or cut off.

2.3 Prototype Method

Prototype [3] begins with communication between the software development team and the customer. The software development team will hold meetings with stakeholders to define the overall goals for the software to be developed, identify any requirements specifications currently known, and describe areas where further definitions in the next iteration are mandatory.



Figure 1. Prototype Method

3. FINDINGS AND DISCUSSION

3.1 Data Collection Method

To get data related to the application of virtual tours of natural attractions in the city of Bandar Lampung, the authors collected data through a list of questions, observations (documentation), documentation (documentation) and literature review (library research). The following is an explanation of the stages of data collection above, including:

- 1 . List of questions.
- 2 . Observation.
- 3 . Documentation.
- 4 . Literature Research.

3.2 Logic Design Draft

In the logic design design contains Unified Modeling Language (UML) modeling, namely use case diagrams, class diagrams and activity diagrams. Following is an explanation of each diagram used:

1. Use case diagram

Here is a Use Case Diagram of a Virtual Nature Tourism Tour Application in Bandar Lampung City Based on Android:

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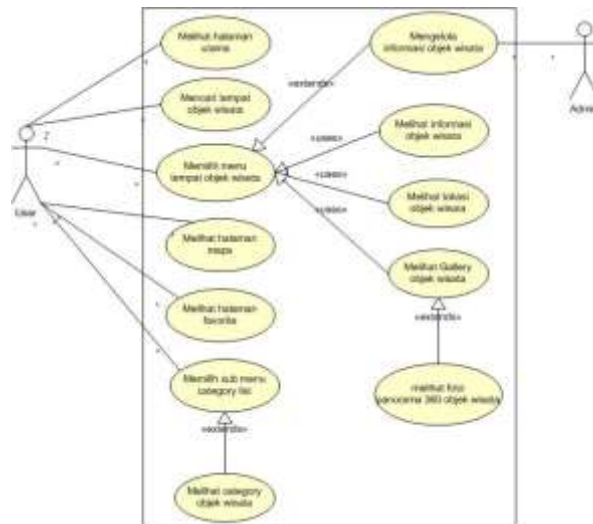


Figure 2. Use Case Diagram

2. Class Diagram

Here is a class diagram of the Virtual Tourism Nature Tour Application in Bandar Lampung City Based on Android:

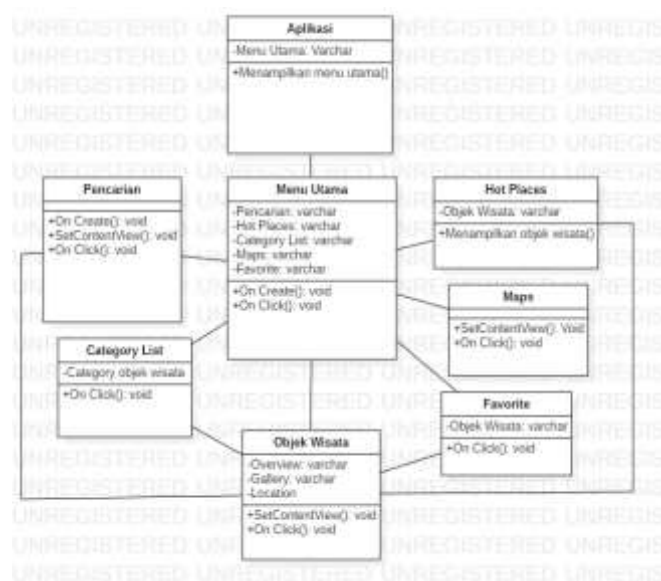


Figure 3. Class Diagram

3. Activity Diagram

Here is the Activity Diagram of Virtual Nature Tourism Tour Application in Bandar Lampung City Based on Android:

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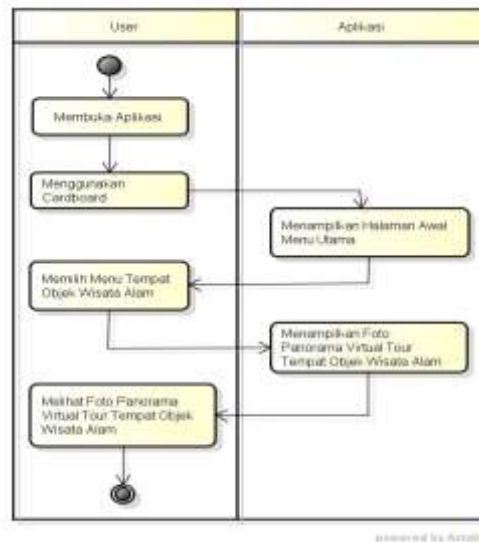


Figure 4. Activity Diagram

4. Main Menu Form

The main menu form can be seen in Figure 5. as follows:



Figure 5 Main Menu Form

5. Tourism Menu.

Display of tourist objects contains material in the form of explanations about tourist attractions, 360° virtual tour photo gallery, audio voice direction and map of the location of natural attractions and arrow buttons to return to the previous menu which can be seen in Figure 3.2 as follows:

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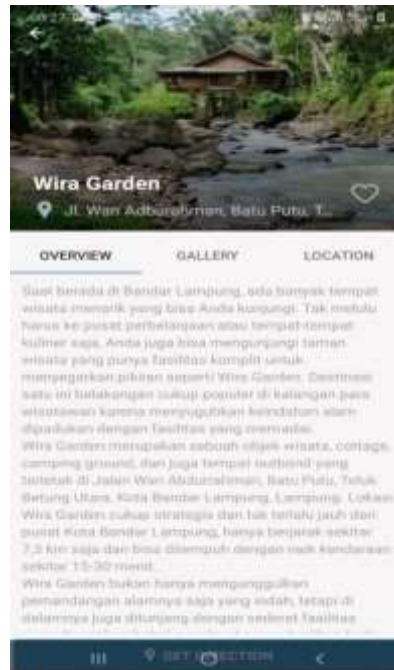


Figure 6 Tourism Object Menu

6. Category List Menu

Display the category list menu is a display of the type of tourist object category, which is used to select menus from the types of nature tourism, including the natural tourism menu, playground and zoo which can be seen in Figure 7 below:

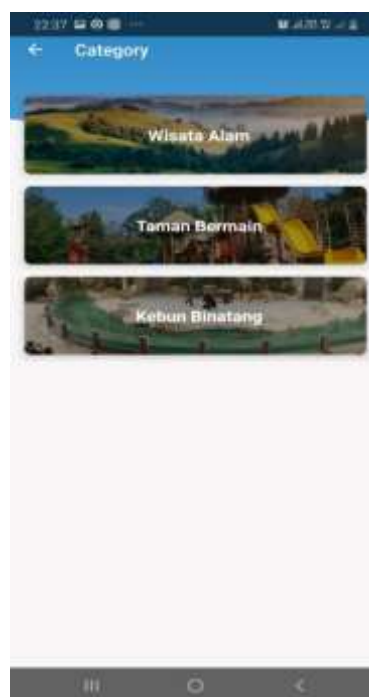


Figure 8. Category List Menu

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4. CONCLUSION

Based on the results of the analysis and design of a virtual tour of natural tourism applications in the city of Bandar Lampung based on android discussed in the previous chapters, the conclusions can be drawn as follows:

1. The application is in accordance with the expected features and functions so that it can be an alternative delivery of information on natural attractions that are packaged attractively.
2. This application is able to overcome the previous problem which is the unequal number of visitors in each attraction. With this application, there can be an increase and even distribution of the number of visitors in each attraction.
3. This application presents information to users, who can see the state of natural attractions in 3 (Three) tourist spots, so as to display interactive visual information. In this application there is also a location map that serves to indicate the location and distance of tourist attractions as tourist information for users of virtual tour applications.
4. The material applied in the application is presented in the form of 3 natural tourism object information, a 3600 virtual tour photo gallery, audio voice derection and a map of the location of natural attractions that are directly connected to Google maps.

REFERENCES

- [1] Eraker, D., Kalaiah, A., & McGarty, R. (2019). *U.S. Patent Application No. 10/242,400*.
- [2] Lasabuda, B. K., Mamahit, D. J., & Sugiarto, B. A. (2019). Virtual Tour Pengenalan Teluk Labuan Uki di Kabupaten Bolaang Mongondow. *Jurnal Teknik Informatika*, 14(1), 129-134.
- [3] Hidayatulloh, A., Lumenta, A. S., & Sugiarto, B. A. (2018). Rancang Bangun Aplikasi Virtual Tour Potensi Alam Kecamatan Mandolang Kabupaten Minahasa. *Jurnal Teknik Informatika*, 13(3).
- [4] Sari, Y. P. (2019, November). Game Edukasi Kesenian Lampung Berbasis Android. In *Prosiding Seminar Nasional Darmajaya* (Vol. 1, pp. 135-140).
- [5] Karnila, S., Irianto, S. Y., & Kurniawan, R. (2018, October). Content Based Video Retrieval Intelligent Security System. In *Prosiding International conference on Information Technology and Business (ICITB)* (pp. 120-126).
- [6] Herlina, H., Karnila, S., Kurniawan, R., Yulmaini, Y., & Yusendra, M. A. E. (2019, May). PENGGUNAAN INFORMASI JARAK TERPENDEK PADA APLIKASI E-TOURISM BERBASIS ANDROID SEBAGAI STRATEGI PROMOSI PARIWISATA BANDAR LAMPUNG. In *Prosiding Seminar Nasional Sains, MIPA, Informatika dan Aplikasi (ISBN: 978-602-98559-1-3)* (Vol. 4, No. 4).

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- [7] Azima, M. F. (2018). Teknologi Informasi E-Complaint pada Perguruan Tinggi. *Jurnal Informatika*, 18(2), 116-123.

- [8] Sylvia, A., Kurniawan, R., & Sulyono, S. (2019, August). APLIKASI MOBILE UNTUK NOTIFIKASI KEGIATAN DOSEN MENGGUNAKAN METODE ROUND-ROBBIN (STUDI KASUS: IIB DARMAJAYA). In *Prosiding Seminar Nasional Darmajaya* (Vol. 1, pp. 247-257).

- [9] Idin, N. B., Azhar, N. B., & Arkhiansyah, Y. (2019, January). COMPUTER VISION BASED DETECTION FOR EARTHQUAKE WARNING USING HYDROPHONE. In *Prosiding International conference on Information Technology and Business (ICITB)*.

- [10] Nasution, U. D. S., & Sari, Y. P. (2018, November). Membangun Business To Customer Relationship Dealer Honda Uber Anugrah Berbasis Smart SMS. In *Prosiding Seminar Nasional Darmajaya* (Vol. 1, No. 1, pp. 356-361).