MOBILE DICTIONARY FOR HITU ETHNIC LANGUAGE

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Abstrak
Indonesians have many diverse ethnic groups. Each tribe has different traditions and cultures. As with language, each tribe has a different local language to communicate and interact with their community and environment. Hitu is one of the villages (Negeri) on Ambon Island, Central Maluku Regency. People in Tanah Hitu communicate every day using the Hitu language. Hituese is one of the local languages in Indonesia.
The Hitu Country dictionary application is a mobile-based application that can make it easier for the people of Hitu Village to find translations from Hitu - Indonesian - English or vice versa. This is because many foreign and domestic tourists visit Hitu Village.
People in Hitu can certainly speak Indonesian, but not all are able to speak it fluently. Therefore, this dictionary was created to facilitate the community in Hitu. This mobile application can display vocabulary translations that can be searched from Hitu to Indonesian and Indonesian to Hitu or vice versa. This dictionary will use Android-based mobile devices and will also take advantage of current developments that are very sophisticated. The Hitu dictionary application will be easy to carry anywhere and can be accessed every day.

Keywords: Dictionary, Language, Negeri Hitu, Mobile, Ethnics

INTRODUCTION

Language is a communication tool [1]. Knowledge of language is very important because in a conversation or conversation requires a language [1]–[5]. The Hiatuses ethnic who are right around Central Maluku have a slight deficiency in accessing English lessons. Due to the inadequate time, facilities, and infrastructure, understanding English in this village is a language that is very difficult or difficult to understand [6].

Apart from English, there are regional languages that have long been used in the Hitu village. However, due to increasingly advanced times, the local language of the village is increasingly being forgotten because no one is using the language anymore. There are still those who use it only from the elderly. The factor that causes Hitu language to be rarely used is because the local language of the Hitu village is considered difficult to understand.

With the development of technology [7], we need an application that can help and speed up vocabulary searches as a substitute for a book or dictionary that is thick enough to be carried anywhere and anytime [8].

Mobile phones with the Android operating system have become a necessity for most of the people [9]–[13]. The number of applications made to facilitate users in everyday life, one example is the digital dictionary application, with the existence of a digital dictionary on a smartphone, users no longer need to use conventional dictionaries which are impractical to carry everywhere [14]. The purpose of this study is to provide convenience and speed in obtaining information about knowledge related to Hiatuses Regional Languages to English and Indonesian. Apart from being useful for helping the Hitu community to communicate, this application is also expected to contribute to the preservation of regional languages as one of the riches of the Indonesian nation.

One application that can help users to learn regional language vocabulary is the Hitu State Language Dictionary Application based on the Android Operating System. This application provides three languages at once that can be learned by users, including Indonesian, English, and Hiatuses. Users can search vocabulary from Indonesian which is translated into the three languages and vice versa.

PREVIOUS RESEARCH

Many Android-based dictionaries have been made and used as theses, but the application programs used have their own differences. Some examples of android-based dictionary applications that have been developed by previous researchers:

Research [15] succeeded in making an Indonesian-Chinese / Mandarin-Indonesian dictionary application online, this application successfully reads any character entered according to the basic word.

Research on Android-based Betawi Language Dictionary Application was successfully developed by researchers [16]. This application is designed to produce translations of Betawi vocabulary into Indonesian. The translation search process in this application applies a sequential searching algorithm.

Research [17][18] produced a Dictionary of Regional Languages Application based on Android Smartphone and Application of Dictionary of Kei Language to Indonesian and Visualizing Language Lexical Similarity Clusters: A Case Study of Indonesian Ethnic Languages was carried out by [19] by implementing sequential searching. This application is designed to produce the translation of Karo vocabulary into Indonesian.

METHODS

To produce accurate data and reports, the implementation is arranged in stages in detail. Therefore, researchers used a structured research methodology.

A. Data Acquisition

The type of data used is secondary data, data obtained from outside primary data, obtained from reference books and literature related to this application design project. To be able to collect the data needed in the study, the researcher conducted interviews with several Hitu speakers whom the author met, including some of the Hiatuses native parents who had long lived and understood the Hitu language.

B. Functional Requirements

Functional requirements are types of requirements that contain what processes the system will carry out. Functional requirements also contain any information that must be present and generated by the system. The following are the functional requirements of the dictionary application that will be created and developed:
1. The dictionary application can display a menu to select the language, namely Hitu Indonesian, and English.
2. The dictionary application only provides language meaning in one word only.
3. This application is not connected to the internet network.

4. The dictionary application has a knowledge menu, which contains images and explanations about culture, tourism, culinary and others.
5. The dictionary application can be run on the Android operating system with a minimum specification of Android 4.3 Jellybean to Android 6.0 Marshmallow.

C. System Analysis

The researcher used the SWOT analysis method (Strength, Weakness, Opportunities, Thread) to analyze the strengths, weaknesses, opportunities, and threats of the Mobile Dictionary for Hitu Ethnic Language [20]. The results of the SWOT analysis for making this application can be seen in Table 1.

Table 1. SWOT Analysis for Mobile Dictionary of Hitu Indonesian-English

Internal\External Factor	Strength	Weakness
	1. A class label is available for each word translated. 2. Offline Application 3. User friendly	1. Unable to translate sentence. 2. There is no word addition feature.
Opportunity	*SO Strategy*	*WO Strategy*
Potentially attracting demand for mobile application users	Using the internet as promotional medium.	a 1. Added the ability to translate sentences. 2. Added word add feature.
Threats	*ST Strategy*	*WT Strategy*
The emergence of other developers who will make similar applications that are better and more interesting	Improve the quality and excellence of this application	Add more vocabulary

RESULT AND DISCUSSIONS

The stages of making this dictionary application begin with the implementation of an interface design that describes the involvement of each page and explains the direction of communication using UML (Unified Modeling Language), applies the Java Programming Language and Database, and evaluates using the Blackbox method.

User Interface

The splash screen page will be displayed when the user first opens this application and then the main menu is displayed. This application has several features including Translation, Knowledge, and About. The interface can be seen in Figure 1.

Blackbox Test

At the testing stage on mobile phones, testing is carried out on several types of mobile phones with different brands and specifications, this is done in order to find

out whether the application is ready for use by the user in a busy manner. Table 2 shows a list of mobile phones used in testing.
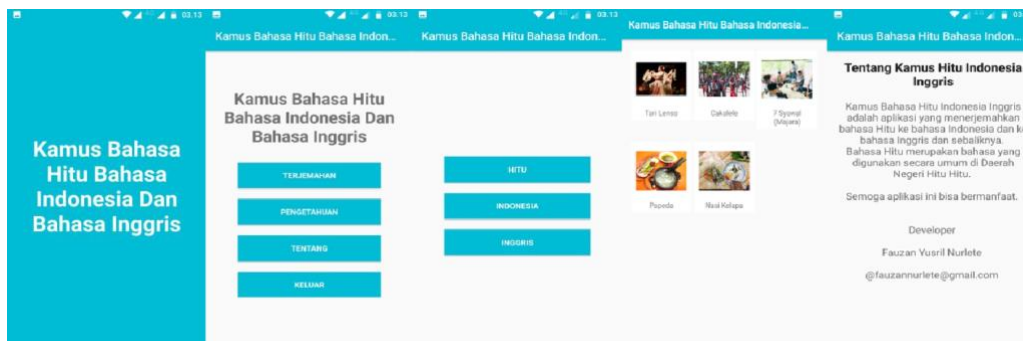

Figure 1. User Interface Display

Table 2. Trial on a Mobile phones

Types	Specification	Results
Samsung Galaxy J5	a. Android v6.0.1 (Marshmallow) b. Quad-core 1.2 GHz Cortex-A53 c. Internal 8 GB, RAM 1.5 GB d. 5.0 inches, 720 x 1280 pixels	Suitable
Xiaomi Redmi 2	a. Android OS, v4.4.4 (KitKat) b. Quad-core 1.2 GHz Cortex-A53 c. Internal 8 GB, 1 GB RAM d. 4.7 inches, 720 x 1280 pixels	Suitable
Acer Liquid Z220	a. Android v5.0 (Lollipop) b. Dual-core 1.2 GHz Cortex-A7 c. Internal 8 GB, 1 GB RAM d. 4.0 inches, 480 x 800 pixels	Suitable
Oppo Find Muse R821	a. Android v4.2 (Jellybean) b. Dual-core 1.2GHz Cortex-A7 c. Internal 4 GB, 512 MB RAM d. 4.0 inches, 480 x 800 pixels	Suitable

CONCLUSION

After going through several stages in the development and testing process, it can be concluded that the Mobile Dictionary for Hitu Ethnic Language is in accordance with the initial needs, this application makes it easy for users to translate Hitu into Indonesian and English and vice versa, and this application can run well (suitable) on the android operating system with the minimum specification 4.3 Jellybean.

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