Digital Regional language Dictionary of Gayo-Batak

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Abstract

In Indonesia we have unity language of nation that is Bahasa Indonesia and for the tribe community of Gayo and Batak have a special language area that is Gayo and Batak language. Nowadays, most of the community are no longer familiar with Gayo and Batak language, due to the influence of free social language this language of Gayo dan Batak dissapeared. The writer tries to make an aplication design as dictionary of Gayo language to preserve the language through smartphone aplication. We know the dictionary in the form of books has been widely circulated in the market today, but it will take long time and has short of vocabularies in finding of words. Therefore, here the writer has designed the dictionary in smartphone aplication. In accomplishment the design of Gayo batak dictionary has several parts, they are UML, it will explain about the design of the application system as the part of UML is *use case diagram*, and the display designed which will explain about the design of the initial appearance of the application to the end of the application. This application can be implemented on smartphone with version 4.2.2 or more, it requires memory space of 20,225 Bytes, for a capacity of 1 KB will be able to accommodate about 9 records of words. For development of application, it has the following suggestions are: reproduce the translation database, this app can be uploaded to Market or Play Store on smartphone, it can be added with voice searching facility and can also display the translation result by voice

Key-word: - Kamus Smartphone, Gayo Language, Batak Language

1. Introduction

Each region in Indonesia has different tribes as well as the language used as a medium of communication. To understand the language used by each region, it must be needed tools that can help to interpret the vocabulary, that is the dictionary that the language differences do not become a constraint in communication. In Indonesia we have unity language of the nation that is Bahasa Indonesia and for the tribe community of Gayo and Batak have a special language area that is Gayo and Batak language. Nowadays, most of the community are no longer familiar with Gayo and Batak language, due to the influence of free social language this language of Gayo dan Batak dissapeared. this can be seen among the younger generation. The writer tries to make an aplication design as dictionary of Gayo language to preserve the language through smartphone aplication.

According to Kosasih (2015) Language is defined as a series of sounds that have a certain meaning. A series of sounds known as words that describes a concept. "Indonesia has at least 714 tribes and has more than 1100 regional languages. Therefore, the researcher needs to preserve local languages that have become a pluralistic nation (Kompas, 2017). According to Lauder (2017) from the Department of Linguistics University of Indonesia, Indonesia became one of the preferred locations for language researchers in the world. In case of Indonesia is a country that as the second largest number of languages in the world. The writer make a collection in form of dictionary to be able to preserve the local language.

We can find the dictionary in the form of a book has been circulating a lot in the market today, but it will take long time and has short of vocabularies in finding of words. To overcome the problem the author designed the dictionary in the form of smartphones, the application will be designed is a development application dictionary of smartphones that has been existed before. Creating of a digital dictionary is really needed to overcome the extinction of the language, because the form in computer applications is easy to be stored and infomed through the Internet media. In the form of computer applications makes it is easy for programmers, language researchers, faculty, learners or anyone who uses this application to develop the application, for example in terms of adding vocabulary or adding application features to help maintain the language it examines. (Andi, 2017)

The dictionary can be defined as a reference book containing of words and phrases that compiled using the following alphabet with a description of its meaning. "(Hoetomo M.A, 2015). This study was made with android-based of smartphones, Android is a modified operating system from Linux intended to run on smartphone and tablet computer. "(Safaat, 2015). To accommodate all data words then required database to process it all. The database used in this research is SQlite. SQLite is a database existed in android, every android application can store data locally on smartphone devices. SQLite is very light, uses only small memory. "(Kurniawati, 2015 & Satyaputra, et al 2016)

2. Methodology

Methodologies of implementation to be conducted is literature studies of books, internet and other sources of reference related to the language, especially the regional languages in Indonesia, as well as in making android applications and data storage. This research was designed using android smartphone with the storage of words stored in the SQlite database, the temporary application is running offline. The system process that is created can be seen in Figure 1
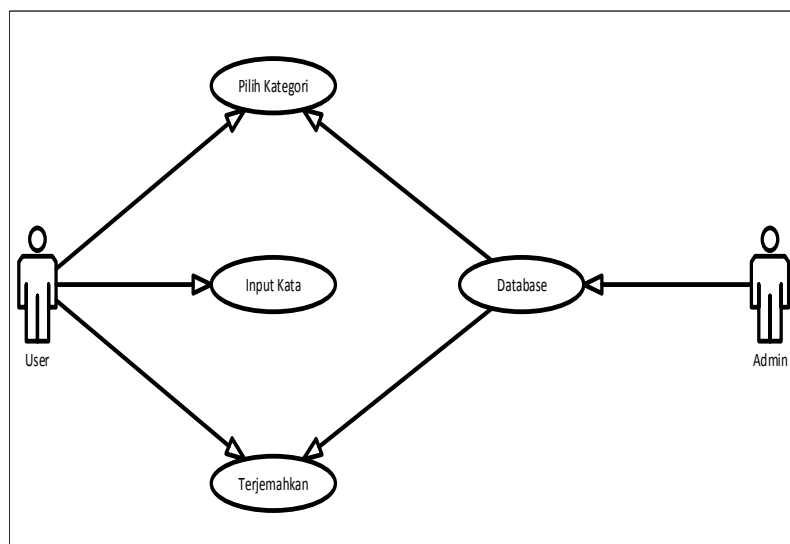

Figure1. System Process

The explaination of diagram *use case* shows in figure 3.1 as follows:

Tabel 3.1 *User Data.*

Term/ Kategori	Deskripsi
User	Each individual is a user of application
Admin	User who serves to input, change and delete the data in database

Source : Writer (2017)

Tabel 3.2 Category list

Name	Description
Category select	This *Use case* describes to select the word translation will be searched. There are four choosen of words translation, they are Indonesia-Gayo, Gayo-Indonesia, Indonesia-Batak and Batak-Indonesia
Word input	This *Use case* describes words input will be searched for translate into Indonesia, Gayo language or Batak
Translation	This *Use case* describes searching process of translation result which have been input
Database	This *Use Case* describes a process where data is storaged

Source : Writer (2017)

In the stage of database design contains index production in table and grouping the tables

Tabel 3.2 *Tabel Dictionary data*

Field Name	Data Type	Field Size	Description
Id	Integer	-	ID
indonesia	Text	-	Bahasa Indonesia
Gayo	Text	-	Bahasa Gayo
batak	Text	-	Bahasa Batak

Source : Writer (2017)

3. Finding and Discussion

As for the result of this research is the application of language dictionary of Gayo batak based smartphone that can search words from Indonesian to Gayo or vice versa and also from Indonesian to Batak language and vice versa. The application of Gayo Batak dictionary development can be installed on a smartphone that has been built previously and then becomes a data in APK (Android Package). The application dictionary of Gayo Batak-based of Smartphone has been built by using Android Studio 4.3.2 and also with Android 4.3.2 build targets or more that have been successfully tested through NOX as emulator and be able to run well. The main view of the system can be seen as followed in Figure 2
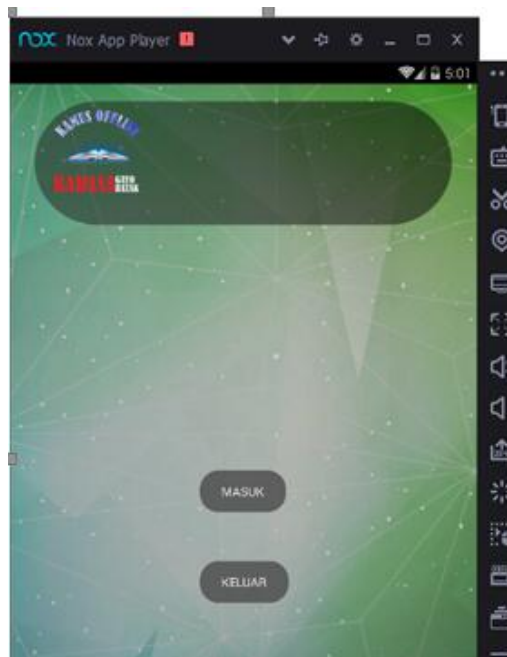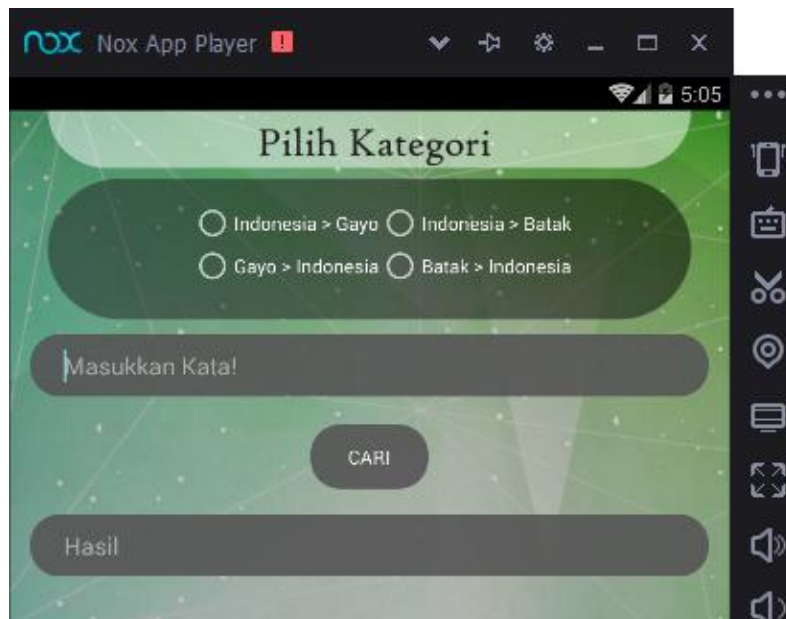

Figure 2. Home Vie

The program will be represented by an icon as a shortcut to run on the application of dictionary of Gayo based smartphone, for the image is shown in Figure 3

Figure 3. Icon of Dictionary application of Gayo Language

In the program's home page view, a cover is displayed along with two Entry and Exit buttons. The cover contains with background, logo and application title. On other part, the two buttons on the home page with the position under the cover is the Login button that serves to enter and continue to the next page and the second button is the Exit button that serves to terminate or exit the application. The next page is the dictionary page, where if the user selects the login button, it will point directly into this page. Inside of this search page, there are two translation options, word form input, button of searching words and result form. see figure. 4

Gambar 4. Words input

In this search page view there are four language translation options, namely Indonesian - to Gayo language, Gayo language into Indonesian, Indonesian - to Batak language and Batak language - to Indonesian language. There is button of searching word where word *form input* to input the word to be searched the translation that is used to translate the word and the result will be displayed on the result form. The admin login page serves for securing the admin where the admin must fill in the username and password correctly as the way to enter the admin page as shown in Figure 5
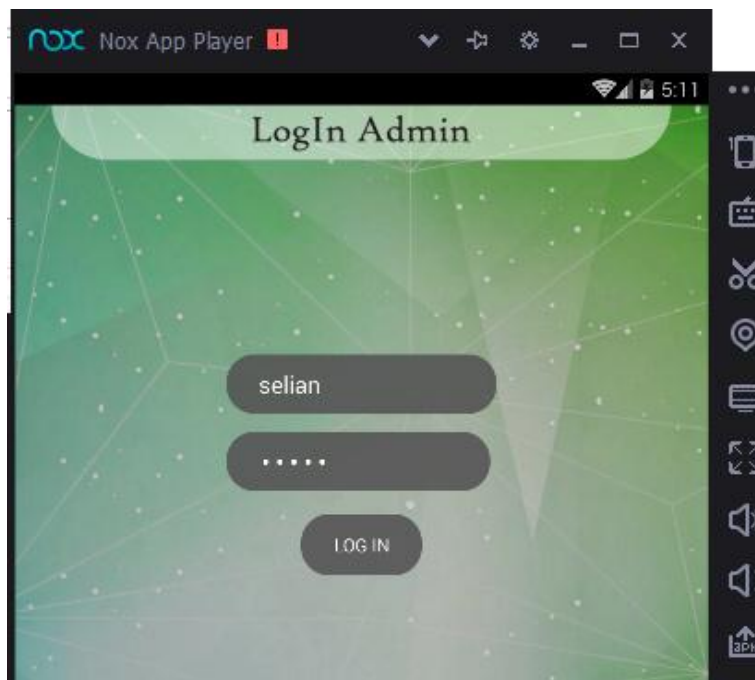
Figure 5. Admin page

The admin page displays the dictionary data view on *list view* and also displays the command added data, change the data and delete the data. Figure 6.
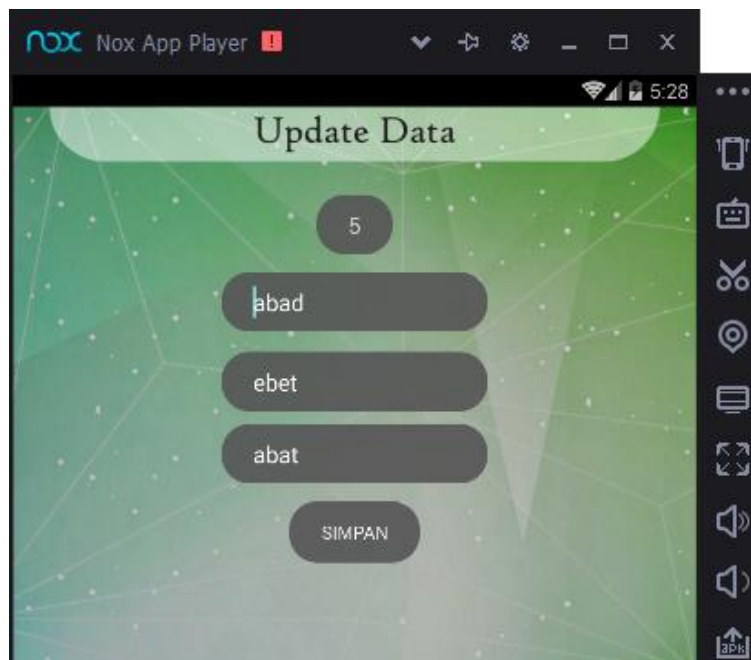

Figure 6. Admin page view

Page of added data is functioned to add dictionary data in *database*. See figure 7

Figure 7. *View of Admin page*

Page change data functions to change dictionary data which have been existed in *database*. See figure .8

Gambar 8. View of page data change

Conclusion

From the research results is obtained some conclusions, they are:

1. The Dictionary application of Gayo language is built by using java programming language with android system together with android application studio version 4.3.2 or more.
2. Produce the Dictionary application of Gayo Batak language, which can be a medium of good knowledge, and facilitate the public to translate Indonesian to Gayo language and Indonesian to Batak language and vice versa.
3. Fascilitated with useful of admin page to add, change and delete data in The dictionary application of Gayo language.

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