DESIGN AND IMPLEMENTATION OF TRAVEL GUIDE APPLICATION WITH VOICE COMMAND IN BAHASA INDONESIA ON ANDROID BASED MOBILE DEVICES

Student Name : Muhammad Najib
NRP : 5109 100 111
Major of Department : Informatics Engineering, FTIf-ITS
Advisor I : Dwi Sunaryono, S.Kom., M.Kom.
Advisor II : Umi Laili Yuhana, S.Kom., M.Sc.

ABSTRACT

Nowadays, information technology is growing rapidly. The variety of information is easily to be obtained along with the development. By the presence of location-based service technology, somebody able to find the informations about places from the whole world just by mobile devices. Technology today also supports the presence of mobile devices which know the needs of human, one of them is language technology to recognize the human language. For those reason, there is an idea to combine those two technologies by build up an application of travel guide with voice command in Bahasa Indonesia on android based mobile devices. Bahasa Indonesia has chosen because the number of user of this language is very abundant, remember that Indonesia is ranked the fourth largest in population density term.

The voice recognition technology in this application is using Speech Input API which is provided by Google on Android devices. Speech Input API technology is converting the voice to text then be processed accordance with the sentence patterns in Bahasa Indonesia. The response from the application is given to the user
in voice form, implementing technology of speech-to-text which was served on android based mobile devices. The informations about the location is obtained from GPS signal to detect the location of user and Google Maps to get the information of world map. Beside displaying the map, Google Maps is also used by these application to get the shortest route of user’s travel.

According to the test result in this Final Project, users are able to find the location and the route by using this application. The position detector of user also can work well, as evidenced by the movement of position mark in the map which is displayed by mobile application according to user position when this application is run. The voice recognition technology and speech-to-text of this application are enough to be said successfull.

The conclusion which can be obtained from the process to make this Final Project is this application can help people to make easily the finding of location by display the route toward these location. Further development of the speech recognition technology is needed to complete this application features, so it is not only to guide users to his destiny place, but also can provide other information based on user location.

**Keywords: Travel Guide Application, Voice Recognition, Android.**