

Abstract

In today's era of globalization people are constantly on the move and thus mobile is the future and cornerstone of all activities of people in the future. Almost every popular language has a dictionary app in different mobile platforms today. Assamese which is the most popular and widely used language of North-East India is lagging behind in this aspect. Thus an Assamese dictionary for mobile platforms serve as a very interesting topic to be taken up as a project.

The aim of this paper is to explain the design and development of a framework for an Assamese dictionary for Android-the most widely used platform in mobile devices today. The dictionary has been developed in two modes- online and offline. The online mode has been developed using a client-server architecture. The words are stored with their meanings in a MySQL database in a remote server. The user can search for the words in the client-side user interface and the word is sent as a query to the server side by Http Post Method. The meaning is returned to the user from the server side. Since the database is hosted in a remote server, modifications can be made to the database as and when necessary and the application gets updated automatically. On the other hand for the offline application, the database used is SQLite and the database is embedded into the application as a file. Thus when the user searches for words the database-file that is embedded within the application are searched for words and their corresponding meanings are returned. Since the database is local here, the response time for searching is much less compared to the online version. Both the online and offline versions have also been combined into one single application to give the users a complete experience

The client-side user interfaces of all the applications have been designed in Eclipse using Java and XML, and the server-side modules have been designed using PHP. All the modules as well as the complete applications has been implemented and tested successfully in Samsung (Android-Jellybean) as well as Micromax (Android-KitKat) devices.