ELIZ - Instant messenger for Android platform

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ABSTRACT

ELIZ is an instant messenger for android platform mobile. This mobile application is developed for sending and receiving text messages from one mobile to another mobile having the android platform. The application will enable sending/receiving text message services from one client to the other via Google Cloud Server. This application is a simple and easy text messenger with freely available resources and hence messaging do not cost anything. Unlike other available application it will not use the phone number as ID for registering the app account, instead it uses the Gmail ID and password as its login ID for registering to the app account. This paper explains the development phases of the instant messenger and its scopes. ELIZ- the developed instant messenger is named after the first author.

Key words: Android; ELIZ; instant messenger; mobile application.

INTRODUCTION

In the 21ˢᵗ century people are used to computer and computer application. Internet today has evolved in fast pace and is different in various way when compared to how it is like a decade ago. Another significant difference is in wireless technology. Smartphone devices such as iPhone, Blackberry, and those that support the Android operating system are everywhere. Apart from serving as a phone device, smart phones are also capable of exchanging instant messages, share videos, audios and images instead of relying on their Computers. There is a global positive impact of mobile application. Using mobile application developed countries are becoming facilitator and developing country are upgrading themselves and making a new type of IT infrastructure.[1-3] Mobile application and development is comparatively new and fast growing sector with computer to computer. ELIZ is an instant messenger for the android mobile. Mobile applications are running on a mobile device which is handy, easy to use and accessible from anywhere and any place. These days many people are using mobile application to chat with friends, browse internet etc. This paper is based on a noble approach to design a mobile application for android phone. Thorough this applica-

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tion user can perform instant chat message. The name ELIZ has derived from the first author's name. Android provides a rich application framework that allows us to build innovative apps and games for mobile devices in a Java language environment. ELIZ attempts to create such application which can be deployed on any android platform. The application will enable sending/receiving text message services from one client to the other via Google Cloud Server. The work has been carried out using the Android Software Development (SDK) tools. To carry out the project java platform has been used. The app is written in a Java programming language, the java compiler will compile the java source code files into multiple byte code files. This application is tested successfully among the peer group.

BACKGROUND STUDY

Mobile applications that run on the mobile devices to perform certain tasks for the users are collection of some set of computer programs. This is a new and fast developing sector of the global information and communication technology.[4] Based on the mode of application, there are different categories of mobile application. They are: i) for communications like internet browsing, e-mail IM client, social networking ii) games iii) multimedia iv) for productivity like calendars, calculators etc v). travel guide, currency converter vi) utilities like profile manager, screen saver, file manager etc.[2]

Google Cloud server

Google Cloud Messaging for Android (GCM) is a free service that helps developer send data from servers to their Android applications on Android devices, and upstream messages from the user's device back to the cloud. The service can also be used with any other client. Google Talk was integrated into Gmail. Users can send instant messages to other Gmail users. As it works within a browser, the Google Talk client does not need to be downloaded to

send instant messages to Gmail users.[5]

Android platform

Android Inc has chosen to use Java as a key pillar in the creation of the Android operating system, an open-source smart phone operating system. Although the Android operating system, built on the Linux kernel, was written largely in C, the Android SDK uses the Java language as the basis for Android applications.[3]

Java Platform

Java is a computer programming language which is concurrent, object-oriented, class-based, and specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere" (WORA), meaning that code that runs on one platform does not need to be recompiled to run on another.[6]

DISCUSSION

The ELIZ is an application which could be deployed on any android platform. The application will enable sending/receiving text message services from one client to the other via Google Cloud Server. The apps will used a customized version of the open standard Extensible Messaging and Presence Protocol (XMPP) like the widely used application such as Facebook, WhatsApp. However, unlike these apps it will not used the phone number as ID for registering the app account. Instead it uses the Gmail ID and password as its login ID for registering to the app account. As talk.google.com is being used as its peer-to-peer dedicated server the email-ID of Gmail will be used for the instant messaging services to be allowed.

This application will access the Google Cloud Messaging for Android as it provides free services to the client from its server. The application object is created whenever one of Android components is started[7]. It is started in a new process with a unique ID under a unique user.
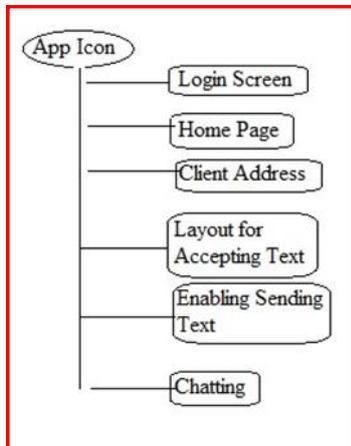
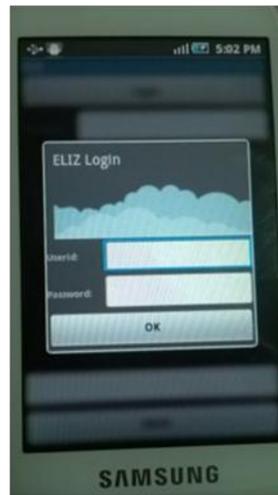Figure 1. Flow of the application.
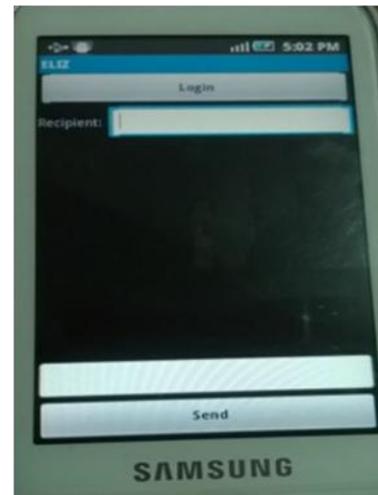
Figure 2. ELIZ login page.

Figure 3. ELIZ home page.

Even if you do not specify one in your Android-Manifest.xml file, the Android system creates a default object for you. The Figure 1 explains the flow of the developed application.

Login page serve as the main page of the app user's account which allows user to authenticate to app services and be granted authorization to access them. The important functions used for developing the application are onCreate() onLowmemory(), onTerminate(), onConfigurationChanged(), onStop(). Client must log in using their Gmail account however, authentication does not imply authorization. To log into an account, the user is typically required to authenticate oneself with a password of his/her Gmail account, as gmail's account info will be used. The home page will create the interface between the user and the client for creating a connection within the client server, this session will provide imputing of text and sending the text messages to the other client by entering the address (Gmail) of the client. After entering the complete specification required the text are ready to send from the app. Figures 2 and 3 show the graphical view of the application. The first figure is the login page where second is the home page and is ready for sending text message.

CONCLUSION

This paper makes a humble effort to focus the development and working of the locally designed instant messenger for android phone. Thorough this application user can perform instant text messaging only but in future the authors will try to upgrade the application by adding extra features like sending image, audio and video messages etc. The paper conceptualizes on the android application deployment on mobile devices. If any user wants to use this application can collect it and easily install it on their android phone.

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