

RIDAC- RAIT Information Desk & Communicator

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Abstract— Communication is a key part of human life. It helps us solve major issues and create wonders. But the lack of it leads to most of our problems. This app will provide students the daily schedule of every teacher to all students, so they can contact them in their time of need. Students can also reach to the subjective professors as well as different committees in our college through our application. The teachers and the committees as well, can make emergency announcements to all students in a swift fashion. Internet has become vital and integral part of every modern society. Students can communicate via chats with each other, broadcast messages to N-number of people and even share files, without internet! All of this can only happen when you're present in the college. This feature will be built in a mobile application called RIDAC. It will act as a bridge between the communication gap of every individual with every other individual of R.A.I.T.

Key words: RAIT Information Desk & Communicator

I. INTRODUCTION

The design and implementation of the system is to provide service in institute and colleges. The system is to provide comprehensive student information system and user interface. College Staff and students can uploads college notifications, event information, workshop details etc. through a secure, online interface using android devices. The system plans for student user interface, allowing students to access tips and tricks as provided by their seniors. All data is stored securely on SQLite servers managed by the college Administrator. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information are scattered, can be redundant and collecting relevant information may be very time consuming.

Our project is an example of a chat server. It runs on the user's Smart phone and requires a server application as a middleware, which runs on any Pc on the network. To start chatting client should get connected to server where they can practice two kinds of chatting, public one (message is broadcasted to all connected users) and private one (between any 2 users only).

The development of this project centred on the development of a message protocol that would allow the application to properly log in users, send messages, and perform system maintenance.

II. LITERATURE SURVEY

In this system, students can view results using Android phones. Students have easy access for viewing the marks, provided their authentications are correct and they are not permitted to change/update the marks. Student's attendance is also monitored by the application. In this system it has two modules : Student's module, student need to register their roll no, college registration number, student name. Admin module maintains the student's marks of internal college

exams. In our proposed system, rather than already available facility of student result details, we will be focusing on college administration and college committee functioning. According to the literature survey the available system has some drawbacks like it is limited only till student academic details. There are no college notification details, technical and cultural event details of college, workshop details etc. Students do not have to visit the college notice board everyday. The proposed system will cater facilities to all the existing versions of android devices.

According to a survey, in India 50 percent of the smartphone users don't have active internet connection. The most striking bit about the findings of the survey was that only half of the smartphone users polled, had an active data connection. While the percentage is higher compared to mobile data use amongst feature phone users, it indicates that a large chunk of smartphone users were not connected to the Internet and thus possibly not utilising their smartphone's capability to the maximum. It also revealed that more than half of all data users among the respondents were younger than 25.

III. PROPOSED METHODOLOGY

As our system will be an android application, it will only work on android smart-phones. It will be developed using Android Studio, which uses Java for developing applications. The interface will be developed using XML (Extensible Mark-Up Language), which is inbuilt into Android Studio. The main two components of this system is, the end user's smart-phone (client side) and an server (server side) which will act as a switching centre and a database server. The following the different roles of the components.

Client side: The client side component will be a android smart phone or any android emulator.

Server side: The server side will be accessible only by the users with admin privileges.

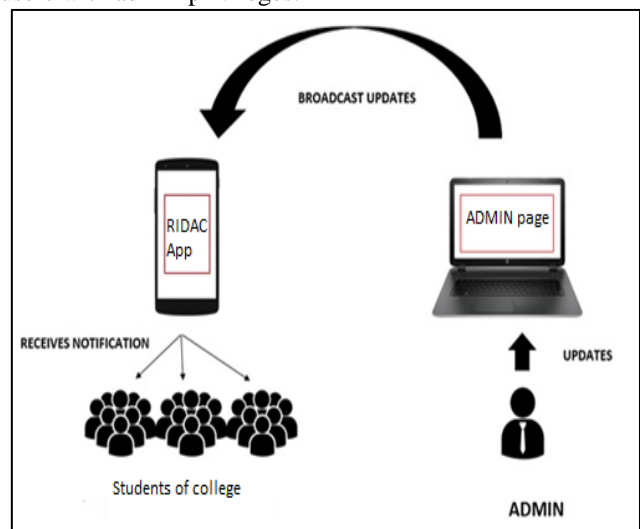


Fig. 1: Overview of the Project Idea

To avail this service, the user must be present in the college premises, as it requires to be connected to the server for all times to be functional. To be connected to the server, the user's smart-phone needs to be connected to the Wi-Fi (IEEE 802.11ac) router present in the college, which will be connected to the server. Thus the user will not require any sort of data packages, as we will be using the phone Wi-Fi (IEEE 802.11ac) or WLAN functionality. For sending and receiving messages (packets) from the server, the following protocols will be used.

- TCP (for text messages)
- UDP (for text messages)
- FTP (for file sharing)

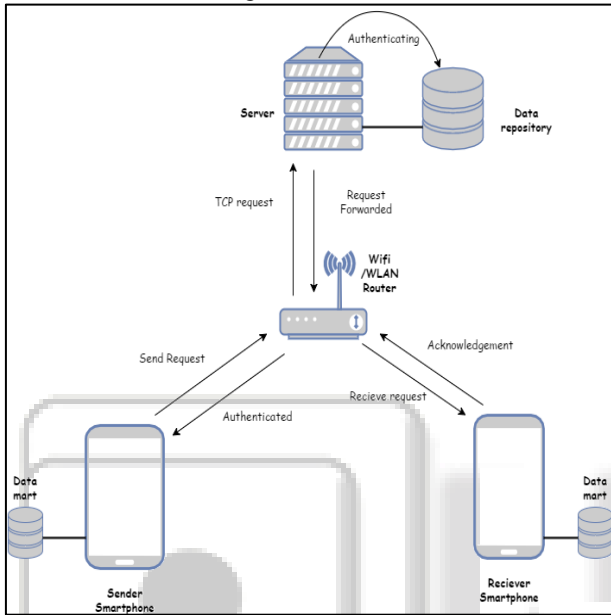


Fig. 2: System Architecture

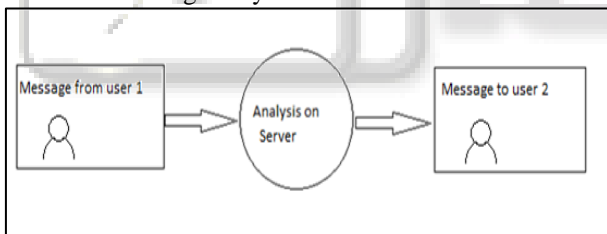


Fig. 3: Level 0 Data Flow Diagram

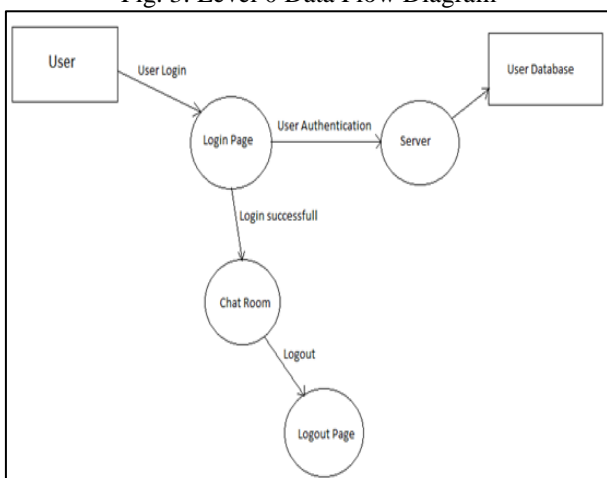


Fig. 4: Level 1 Data Flow Diagram

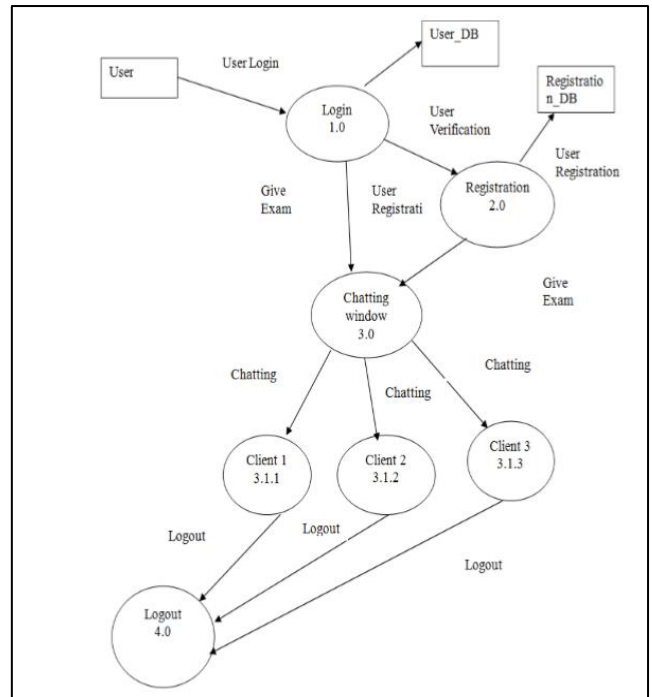


Fig. 5: Data Flow Diagram Level 2

When the user Signs up for the first time, a unique id is registered for him. This unique id along with other information such as the name of the user, Roll No. of the user and other credentials are bound together and updated in the database. This database will be present at the server. So, whenever a user send a message using our communicator to another user, the information of the sender and the receiver are kept in the header of the message and send to the server, The server then authenticates with the sender, as it is a TCP protocol. After authenticating with the user, the server then refers to its database regarding the receiver, and then switches (forwards) the message accordingly. It then again authenticates with the receiver regarding the message. If the receiver has its application open or at least the process running in the background, there might be a live connection to the server. Communicator will use that connection to send them your messages. If the receiver is "offline" then server might choose to send them a push notification instead.

IV. RESULT AND DISCUSSION

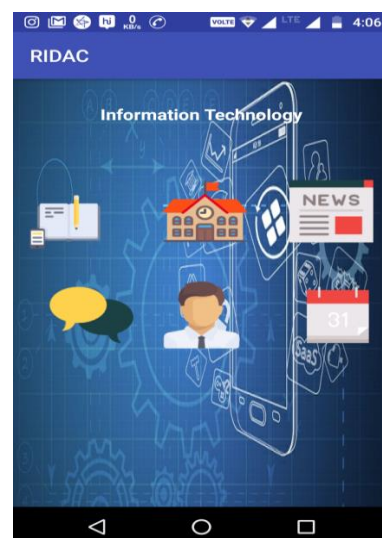


Fig. 6: Home Page

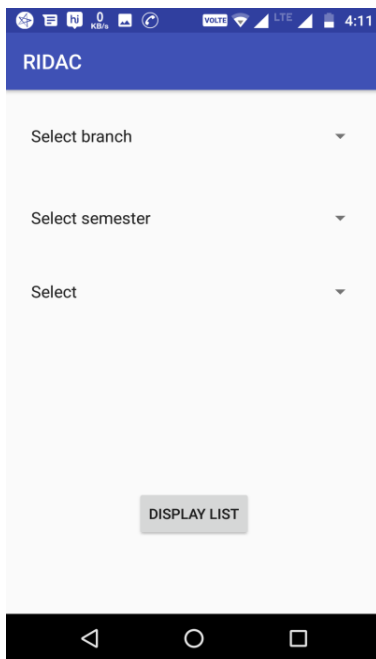


Fig. 7: Display List

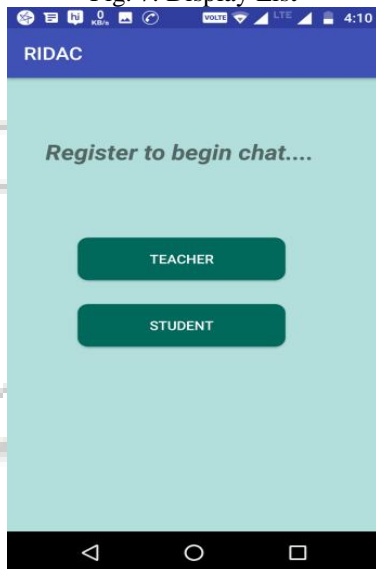


Fig. 8: Chat Module

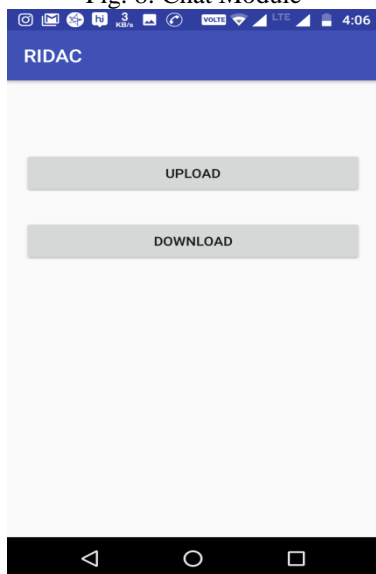


Fig. 9: Assignment Section

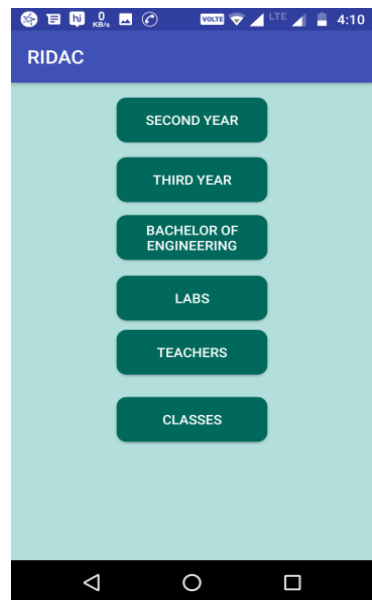


Fig. 10: Display Menu

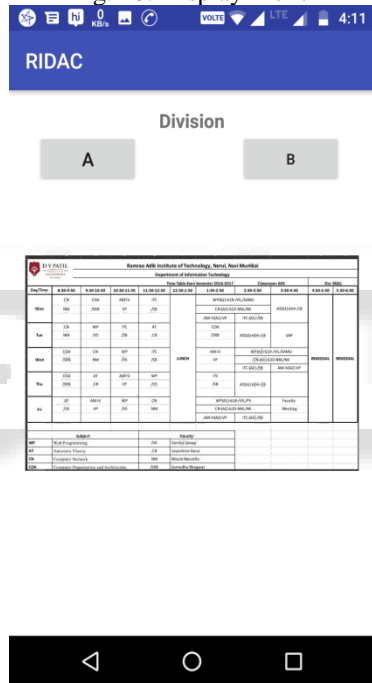


Fig. 11: Timetable Display

V. CONCLUSION

RIDAC offers us reliability, security and freedom, as our important data gets digitalised and is accessible for a larger number of users. With the help of RIDAC, students can view their subjects, important points related to their curriculum, makes reaching to our respective professors easy and important current information regarding the college. Also, accessing this all this information, without a proprietary internet connection, is the most major advantage of our system.

RIDAC's communicator offers us a smart, fast and a reliable form of communication. We can chat with all students, professors belonging to RAIT as well as other people related to our institute. The non-requirement for an proprietary data pack/internet connection to chat with other uses of RIDAC gives us leverage over traditional chatting services such as Whatsapp.

Thus, introducing RIDAC to our college will not only be beneficial for the students of our institute, but will also help in filling in the gap of our students, the faculty, and the rest of the management of our institute.

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REFERENCES

- [1] Broadcast Chat Application
<http://www.slideshare.net/atulrockx/srs-of-3>
- [2] LAN Chat Server
<http://www.slideshare.net/Versatilevipul/lan-chat-system>
- [3] Society Scoop Application
http://www.tutorialspoint.com/struts_2/basic_mvc_architecture.htm

