

# CAMPUS CONNECT USING SMART PHONES PEER TO PEER CONNECTIVITY

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**Abstract:** *Students might not get the expected results due to many issues , one of the major issue is gathering of all required study materials , many are facing problem in gathering materials , material can be books , software , reference papers and so on . That means file is not reaching all. To overcome this issue , the communication gap between the file sender and the file receiver has to be reduced . When we consider particular University the files has to be shared between the faculty members and the students. Since smart phones are smart and portable , it can be used has mode of connection between faculty members and students by developing a client-server application and deploying it on smart phones. Hence this application will help students to get required files which are uploaded by respective faculty members and students can download file for study purpose , and student can also directly ping to faculty member and can live chat.*

**Keywords:** *Component; formatting; style; styling; insert (key words)*

## I. INTRODUCTION

One of the major problem associated with respective academics is ineffective sharing of files between the faculty members and the students of the particular university , since files are unique with respective to the subjects and such files are required by the student for his/her preparation to internals or exams , hence this project mainly focuses on end to end connectivity between the faculty members and the students using android application which as to be installed by the end user in their smart phones. Faculty is uniquely identified by his/her faculty id , department name , and faculty name and students are uniquely identified by his/her student id , department name , student name , semester (since to identify student more particularly). All the above mentioned attributes are taken by the end user during registration . Since this inputs from the end user during registration will help to establish a flexible communication between the faculty members and the students.

### SCOPE

This project is helpful in the academics, since many student are facing problems with gathering the required materials , since this project is of end to end connectivity , it will be more useful for students to get the materials required with respective subject which will be uploaded by the faculty member who is handling the subject.

### PROBLEM STATEMENT

Students are facing problem to gather the required materials with respective to the subject , since each semester in

graduation consist of 8 subjects approximately , and the material required to prepare for those subjects will also be in huge number , since gathering of required materials to prepare for exams is quite difficult by individual student , this mobile application will be help for students to get the required softcopy of the materials in their smart phones as and when the faculty member uploads that file.

## II. EXISTING SYSTEM

The app which is already present is school connect which is basically used for sharing files , here the files are dumped into the repository , where has the student himself as to login to the repository and check for the required file and can download , there is no direct end to end connectivity in this application.

## III. PROPOSED SYSTEM

The proposed system obeys the objective file sharing with full end to end connectivity between the faculty and student of the particular department. Student can directly ping with respective faculty member regarding his queries with respective subject , and faculty can reply to that particular student on his/her request. Faculty can upload files to the particular section of semester , since section is more appropriate with respective semester to identify students of same class , since files are required by all the students of that particular section of that semester. The file uploaded by faculty will be present in the newsfeed of the student , so that he can download that file to get the softcopy of the material. And even live chat box is given , such that faculty members and students can discuss their review about the topic.

### ADVANTAGES OF PROPOSED SYSTEM:

- 1.Direct end-to-end connectivity between faculty members and students.
- 2.Gathering of required materials will be easy for students for their preparations.

## IV. LITERATURE SURVEY

1. A XML parser is programming which peruses the XML archive and gives an interface for the client application to get to the archive. The archive can be gotten to with the end goal of perusing and altering the XML record[1] . This paper exhibits a configuration thought for a Generic XML Parser, which is utilized to parse and reconfigure any substantial XML record , since xml is utilized to outline front end in android application and parsing will accommodating to enter the information at front end i.e XML parsing and recovering

the information.

2. This paper presents an elite SAX like accepting XML parser utilizing a construction particular methodology . In this approach, a mapping compiler first changes the composition into a middle of the road representation called summed up automata[2], which abstracts the calculations required to parse XML archives and additionally accept them against a blueprint. The summed up machine is then meant an outline particular parser, which is fit for parsing and accepting XML reports with namespaces through a pattern particular changed SAX API.

3. This paper portrays how to plan the client interfaces of handheld gadget taking into account Android. The approach of UI outline in light of Android is abridged through examining the diverse undertakings of three delegate parts necessities expert[3] ; UI fashioner ; programming engineer in the life cycle of programming improvement. Since the greater part of the ebb and flow exploration is to talk about the acknowledgment of the product applications in light of the Android stage. This paper concentrates on controlling the technique of handheld gadget UI and successfully enhancing the proficiency of the outline of Android UI.

#### ANDROID

Android is open source stage and gives all data and administrations to all with no permit expenses. It has limit of getting good with all programs thus we can make it perfect with our most loved program. Rivalry between versatile engineers is expanding step by step this is because of new forms of portable stages coming in the business sector. A significant decent number of stages is accessible and is working for giving versatile arrangement. Among every single portable stage Android is capable in light of the fact that Google has made it brimming with highlight and it is open source stage and it is profoundly adaptable. This open source stage pulls in android application designers to assemble fantastic versatile applications. This is the principle purpose behind Android, since its dispatch, Android has turned out to be tremendously mainstream and admirer by numerous portable application advancement groups.

Android is ahead as far as authorizing issue and it doesn't have confinements like iPhone. For iPhone we need to rely on upon Apple for just about everything. Android appropriation framework is best as it is open in nature thus one can disseminate applications according to his craving and take help of outsider circulation framework or merchants or one can go on the web and can offer application straightforwardly on the web. Because of this writes of patterns there are a huge number of uses are available on the web for nothing or with insignificant cost. These applications are having limit of changing the way individuals experience their lives. Google's Android versatile stage is comprises of Android working framework and Android SDK and in addition android middleware. SDK is the essential stage which gives engineers required devices and specialized backing for creating applications and APIs. The best thing about Android is, it depends on Linux stage thus it

encourages totally simple availability to environment and the center usefulness for building breathtaking applications for the savvy cellular telephones. It has limit of scaling up from its present level and gives the best arrangements. The best thing is Google is giving enormous backing and even android designer's group additionally giving incredible backing to it. Android stage is effective in giving exact data required by clients with speedy data gathering systems. It has limit of significantly diminishing improvement time and endeavors required and it will help in completing your undertaking rapidly and effectively so your application can reach to the business sector as ahead of schedule as could be allowed. This will help you to stay in front of your rivals constantly. Android Development instruments are anything but difficult to utilize and usage so any engineer can utilize Android stage quire effectively. It doesn't require adapting any dialect for Android application improvement and one can without much of a stretch perform better with the current learning and capacity or capability. Android gloats a solid exhibit of network choices, including Wi-Fi, Bluetooth, and remote information over a cell association (for instance, GPRS, EDGE, and 3G). A well known system in Android applications is to connection to Google Maps to show a location straightforwardly inside an application. Support for area based administrations, (for example, GPS) and accelerometers is likewise accessible in the Android programming stack, however not all Android gadgets are outfitted with the required equipment. There is likewise camera support. Android boasts a healthy array of connectivity options, including Wi-Fi, Bluetooth, and wireless data over a cellular connection (for example, GPRS, EDGE, and 3G). A popular technique in Android applications is to link to Google Maps to display an address directly within an application. Support for location-based services (such as GPS) and accelerometers is also available in the Android software stack, though not all Android devices are equipped with the required hardware. There is also camera support. Historically, two areas where mobile applications have struggled to keep pace with their desktop counterparts are graphics/media, and data storage methods. Android addresses the graphics challenge with built-in support for 2-D and 3-D graphics, including the OpenGL library. The data-storage burden is eased because the Android platform includes the popular open source SQLite database.

#### History

##### Foundation

Android, Inc. was founded in Palo Alto, California, United States in October, 2003 by Andy Rubin (co-founder of Danger), Rich Miner (co-founder of Wildfire Communications, Inc.), Nick Sears (once VP at T-Mobile), and Chris White (headed design and interface development at WebTV) to develop, in Rubin's words "smarter mobile devices that are more aware of its owner's location and preferences". Despite the obvious past accomplishments of the founders and early employees, Android Inc. operated secretly, revealing only that it was working on software for

mobile phones.

#### *Acquisition by Google*

Google acquired Android Inc. on August 17, 2005, making Android Inc. a wholly owned subsidiary of Google Inc. Key employees of Android Inc., including Andy Rubin, Rich Miner and Chris White, stayed at the company after the acquisition. Not much was known about Android Inc. at the time of the acquisition, but many assumed that Google was planning to enter the mobile phone market with this move. Speculation about Google's intention to enter the mobile communications market continued to build through December 2006. Reports from the BBC and The Wall Street Journal noted that Google wanted its search and applications on mobile phones and it was working hard to deliver that. Print and online media outlets soon reported rumors that Google was developing a Google-branded handset. Some speculated that as Google was defining technical specifications, it was showing prototypes to cell phone manufacturers and network operators. In September 2007, InformationWeek covered a study reporting that Google had filed several patent applications in the area of mobile telephony. Formatting: Insert one hard return immediately after the last character of the last affiliation line. Then paste down the copy of affiliation 1. Repeat as necessary for each additional affiliation.

#### *Open Handset Alliance*

On November 5, 2007, the Open Handset Alliance, a consortium of several companies which include Broadcom Corporation, Google, HTC, Intel, LG, Marvell Technology Group, Motorola, Nvidia, Qualcomm, Samsung Electronics, Sprint Nextel, T-Mobile and Texas instruments unveiled itself. The goal of the Open Handset Alliance is to develop open standards for mobile devices. On the same day, the Open Handset Alliance also unveiled their first product, Android, a mobile device platform built on the Linux kernel version 2.6.

#### *Android Open Source Project*

The Android Open Source Project (AOSP) is led by Google, and is tasked with the maintenance and development of Android. According to the project "The goal of the Android Open Source Project is to create a successful real-world product that improves the mobile experience for end users." AOSP also maintains the Android Compatibility Program, defining an "Android compatible" device "as one that can run any application written by third-party developers using the Android SDK and NDK", to prevent incompatible Android implementations. The compatibility program is also optional and free of charge, with the Compatibility Test Suite also free and open-source. [3]

#### *Terminology*

**Android:** Android is a software stack for mobile devices that includes an operating system, middleware and key applications. It is a Linux-based operating system for mobile devices such as smart phones and tablet computers. It is developed by the Open Handset Alliance led by Google.

**Android SDK:** A software development kit that enables developers to create applications for the Android platform.

The Android SDK includes sample projects with source code, development tools, an emulator, and required libraries to build Android applications. Applications are written using the Java programming language and run on Dalvik, a custom virtual machine designed for embedded use which runs on top of a Linux kernel.

**JDK:** JDK (Java Development Kit) is a software development package from the Sun Microsystems that implements the basic set of tools needed to write, test and debug the Java applications and the applets.

**Net Beans:** Net Beans is a free IDE that can be used to create Java applications. It also provides support for many of the other languages supported by the JVM (e.g., Ruby, JavaScript, PHP, etc.) Net Beans is also known for being a platform that simplifies the development of desktop applications by providing APIs that handle commonly needed tasks. Originally it is developed by Sun. It includes user interface functions, source code editor, GUI editor, version control as well as support for distributed applications (CORBA, RMI, etc.) and Web applications (JSPs, servlets, etc.). In 1999, Sun acquired Net Beans Developer from Net Beans and rebranded it as Forte for Java Community Edition (Sun acquired Forte in 1999). In 2000, Sun made the Net Beans IDE open source.

**MySQL:** MySQL is an open source relational database management system. It is based on the structure query language (SQL), which is used for adding, removing, and modifying information in the database. Standard SQL commands, such as ADD, DROP, INSERT, and UPDATE can be used with MySQL.

#### *REQUIREMENTS*

Hardware requirements

- RAM : 1 GB and more
- Processors : Pentium IV and more
- Device : Android Smart Phone

Software requirements

- Android SDK
- Eclipse SDK
- Windows XP/Vista or Mac OS X(Intel)
- JDK 5 / 6

#### *DESIGN*

##### *GOAL OF OUR PROJECT*

This application is client server application , where front end users are clients (faculty and students) and server is maintained in cloud where this server will help the end users to share files(.jpeg, .txt, .pdf, .png) , if faculty uploads he/she can upload to particular semester , and students who all registered in that particular semester can download that particular file , it will be in the form of list and respected file can be downloaded by clicking on that file . And student can select particular faculty to share their file , since faculty will be unique with respective to subject , and that particular faculty can reply directly to student through uploading file with respective to the query file , and even they can live chat to resolve the issue. This application consist of live chat room where the selected members can chat lively and can

discuss about the issue. The output of the project should help both the faculty members and the students of particular university to live chat and to share study materials which will help students in their academics , since it is of client – server network , server is established in cloud , hence there is no required of any third party to maintain the server , if problem arrives only the admin as all the permission to login and resolve the problem . Hence its an end to end connectivity application , which only requires internet to share files and to live chat.

## V. USER INTERFACE DESIGN

The user interface has to be provided for this software product that is being designed. The graphical user interface must be user friendly. User interface is the significant part of the project as this gives a clear pictorial view of the operations that can be performed. The user interface is designed using J2ME components.

The user interface design has been accomplished using the following layers:

Layer contains the following components:

- JButton
- JTextField
- JLabel
- Toasts
- Lists

The user interface provide the intent to the activity page , where each user interface are specific with respect to the implementation factor , what is the action taken when that particular user interface is triggered is defined with respect to application and the developer. Like button is referred to go to next activity , when that button pressed and edit text is used to take the input from user at run time. JLabel is used to give the information to user with respect to interface , like "Name" ,"Age" all this are labels which help the user to enter the valid details. Lists are used to list down the information by pop-down menu or table. Toasts are pop-ups , but toasts doesn't take any user input , but only pop-ups if defined with respect to some action , like alert message but will not user input. Time slice will be defined to toasts , so it pop-ups only for the specified duration , just to give some information to user about what action is taken with respect to the event

## VI. IMPLEMENTATION

### GOALS FOR IMPLEMENTATION STAGE

The first goal of implementation is to provide a faithful translation of design, The choice of a language should be pragmatic, governed by a mixture of theoretical needs and practical constraints . Good software should avoid any gap between design and code. This is particularly important for reuse of a component or for maintenance work that will require tracing the connection of design to code.

### REAL TIME IMPLEMENTATION

- Application running as faculty in smart phone.
- Application running as student in another smart phone.
- All smart phones who are sign in as faculty or student

should be connected with internet.

### Faculty

#### Faculty sign-up:

Faculty registration is done by clicking on sign-up button in faculty portal where the next activity immediate after the sign-up button is pressed is of information page where all the necessary information are taken ,like faculty username , faculty department , faculty contact number , faculty password , all this data will be loaded to respective column in database.

#### Faculty sign-in:

Username and password given during registration , can be used during login . Once valid user name and password are entered , submit button is used to take into the next activity , where next activity consist of three buttons upload , newsfeed and chat.

### Student

#### Student sign-up:

Student registration is done by clicking on sign-up button in Student portal where the next activity immediate after the sign-up button is pressed is of information page where all the necessary information are taken ,like Student username , Student department , Student contact number , Student password , Student semester , all this data will be loaded to respective column in database.

#### Student sign-in:

Username and password given during registration , can be used during login . Once valid user name and password are entered , submit button is used to take into the next activity , where next activity consist of three buttons upload , newsfeed and chat.

#### Forgot password:

If password is forgotten , then it can be retrieved back by just entering username , the contact number will be searched depending upon the username and the password will be sent to that particular number through text message. And password got by message can be entered to sign in.

#### Function Activity

### Upload

#### Faculty upload:

Faculty can upload a file(.txt , .pdf, .doc etc) by entering the semester in edit text box , browsing the respected file which has to be shared using browse button , then a toast is generated to show the file path and finally by clicking on submit button shares that file with all students who are registered with that respective semester .

Even faculty can directly reply to the student query through file format, by downloading that particular file uploaded by that particular student and study that file , and prepare new file with respect to the query and browse this new file and click on submit or they can communicate using live chat room .

So that this file will go to the newsfeed of that particular student, and in general upload with respect to semester, the uploaded file from faculty will go to the newsfeed of all the students who are registered under that semester.

**Student upload:**

Student can upload the file(.txt, .pdf, .doc etc) to the particular faculty member by selecting the username given by that particular faculty and upload file so, that file will go to the newsfeed of that particular faculty member and he/she can directly reply or can also live chat by selecting the username to chat.

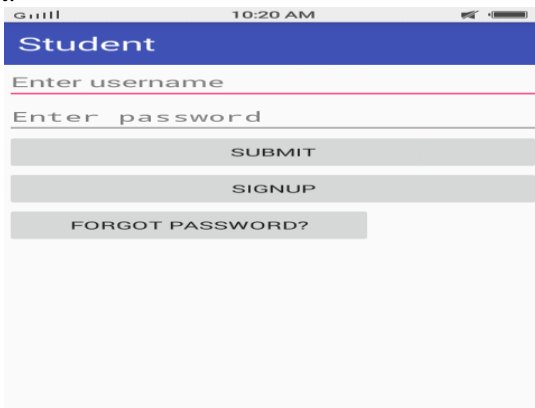
**Newsfeed:**

It's an activity page, where it consists of all the uploaded files and these files can be downloaded at any time to the local machine. File attached will consist of filename, username of one who attached the file and extension of the file, to know the format of the file. These files can be downloaded and studied and all types of files such as .txt, .pdf, .doc, .jpeg, .png can be present in newsfeed after upload.

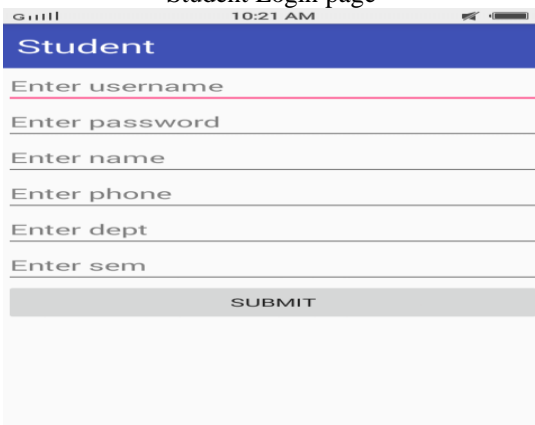
**Chat:**

Chat room is provided in both faculty and student portal, so that two users might be faculty or student can chat by selecting the usernames. And the messages will be extended with # concatenated with the username, so that each message can be uniquely identified with the username.

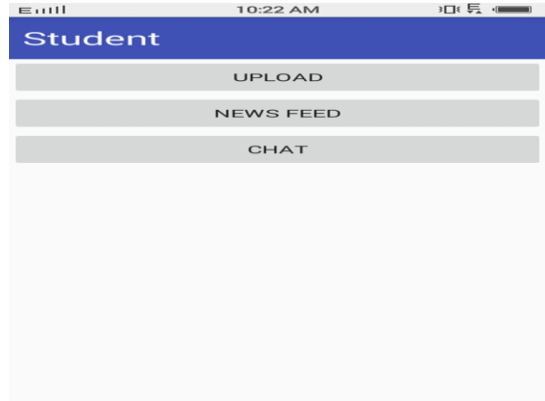
**Result:**



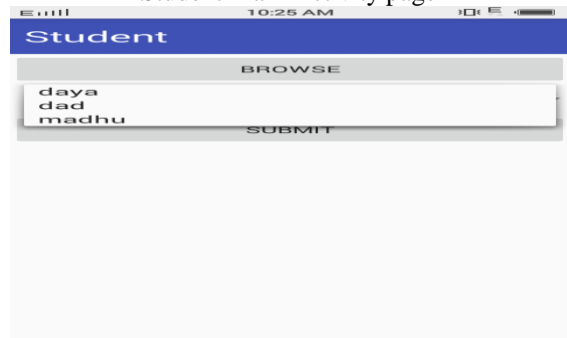
Student Login page



Student Sign-up page



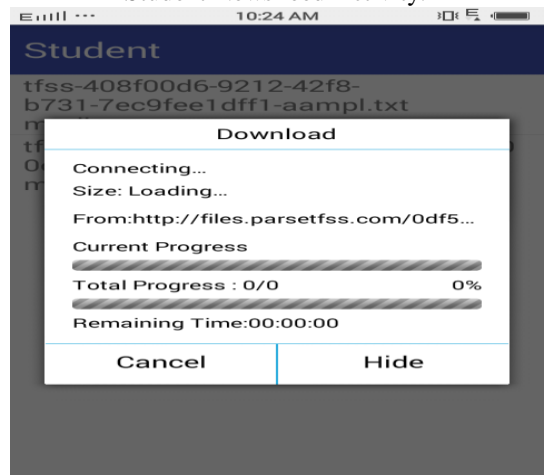
Student Main Activity page



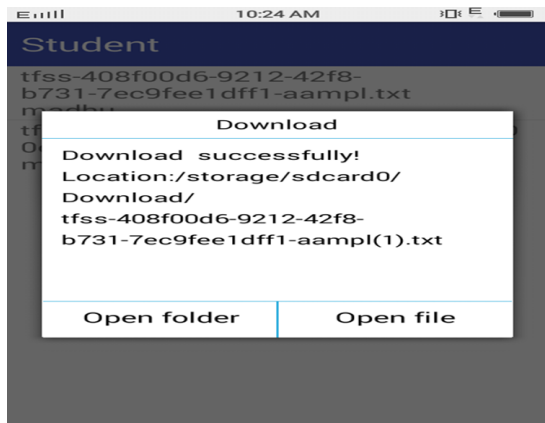
Student Upload page



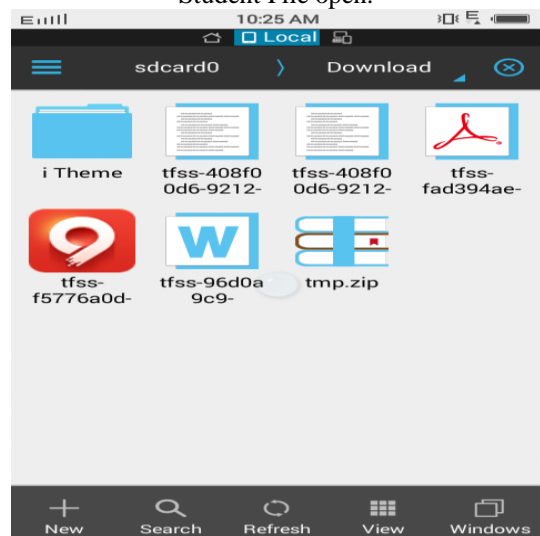
Student News feed Activity.



Student File Download



Student File open.



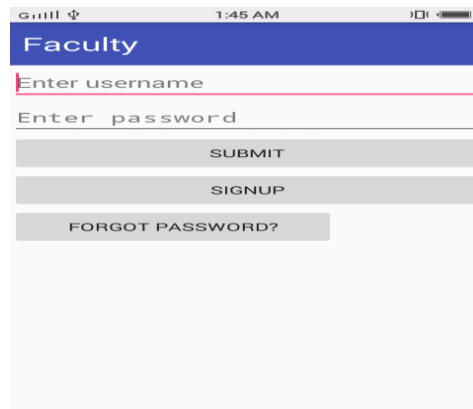
Student Upload File



Chat List in student portal.



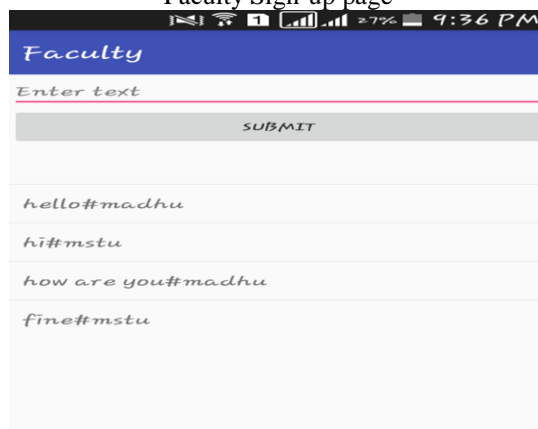
Chat Details in student portal.



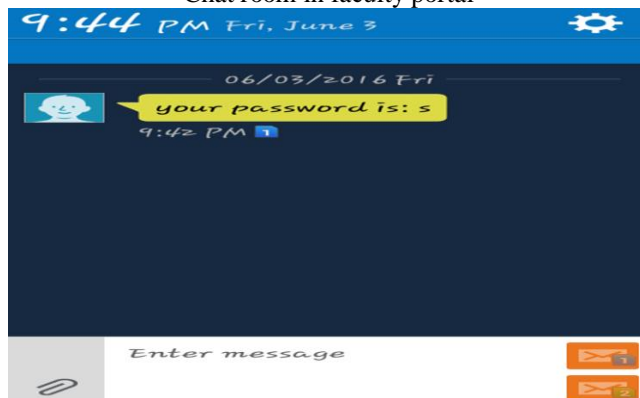
Faculty Login page



Faculty Sign-up page



Chat room in faculty portal



Password through text message

## VII. CONCLUSION

This application is a client-server mobile application , in which server is established in cloud . This application will help the faculty members and the students of particular university to connect directly to share files such as text, audio, pdf, doc, apps, and can also live chat with each other . Since the use of cloud to establish server helped to develop real time projects, since every back end activity is maintained in cloud. Every data is stored in particular column with unique column name , so the data can be easily stored and retrieved , this application will be helpful for students to get the required material on time when uploaded by respective faculty member and he/she can download at any time ,file will be present in their newsfeed.

## *FUTURE ENHANCEMENTS*

Once registered people comes out of chat room , previous chats will be deleted. So the history of chat has to maintained in enhanced version of this application. And the delay time while uploading a file has to be optimized , so the file can upload faster to server. Such that the end user can download the file easily once it is uploaded to server. Group chat room has to be developed in next version of this application.

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