STUDY MATERIAL ANDROID APPLICATION

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Abstract -.*The present Covid-19 situation pandemic forces students to attend their classes through online. This becomes a difficult task for Students to listen classes as they are facing several distractions .It also leads to Lack of communication between Students and teachers. Even students can't take notes properly. Also there will be a library in college which helps the students to prepare for their Exams. This Project helps Teachers to upload their subject related notes, videos or Books in the App. This project can help the students in a better way than other apps So Students will feel so easy to study for their exam and also helps to gain Knowledge regarding the Subject. It reduces the teacher's work as well. Also the app provides the students with live chat and chat assistant feature.*

Key Words: **Study material android application, Node JS API Generation, Chat assistant, android application development**

1. INTRODUCTION

The Study Material Android Application is specifically designed for SCSVMV university students. This android application aims to help the students In their academics by providing them their required study materials which are uploaded by the staffs itself so that no need for students to spend their valuable time for searching the study materials online.

1.1 LITERATURE REVIEW

Paper I: *Notes on Note-Taking: Review of Research and Insights for Students and Instructors Author: Michael C. Friedman*

Description: This literature overview is designed as a resource for both students and instructors to gain insight into what education research reveals about note-taking. Specifically, this review discusses the cognitive mechanisms behind note-taking; he has briefly summarized some suggestions below for students and instructors to consider regarding note-taking

Paper II: *Android Based Study Materials and Notes Management System Author: Prof. M Lutful Islam*

Description: The main idea of this project is to make available the notes of different professors from various institutes which would be made available by their students registered on the android app. By this idea the students would get a wide range of study materials and a whole lot of opportunities to learn new things from different professors across the globe and also will get the opportunity to connect to new people of different.

2. Proposed System

Since mobile devices became more and more powerful and distributive, mobile computing has greatly changed our lifestyle together of the foremost popular mobile operating systems, Android provides the tools and API for Android developer to develop Android applications. Mobile learning as an intersection of Mobile Computing and E-Learning providing resources which will be accessed in anywhere has capability in a superb searching system, rich interaction and full support towards an efficient learning and performance-based assessment. The proposed system aims to supply the scholars with their required study materials which are uploaded by the staffs using the database which is made by using Mongo DB and uploaded to API's. The front UI is meant using xml which allows the scholar to navigate to multiple screens. First initially a student will refer the study materials uploaded by the staff. just in case if they're not satisfied they will get help from the chat assistant which may solve the foremost of the doubts of the scholars . If the scholar wants to clarify the doubt with the staff directly they will use the live chat where the scholar and staff can chat with one another privately.
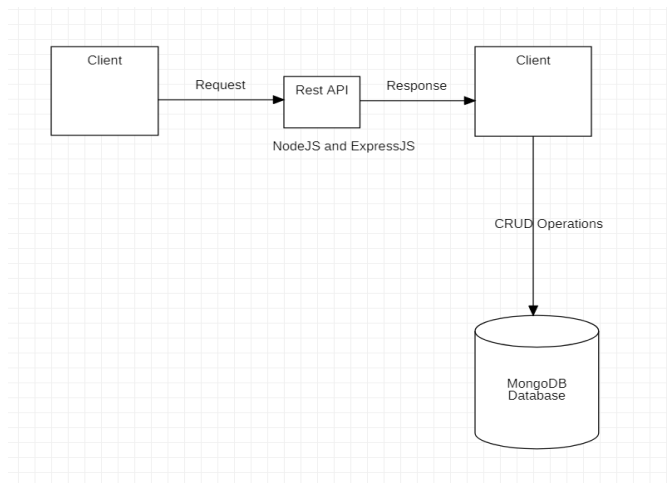
3. IMPLEMENTATION

NodeJS API Generation

In this project we develop the API (Application Programming Interface) using the JavaScript framework NodeJS. Node.js may be a server-side platform built on Google Chrome's JavaScript Engine (V8 Engine). Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and may be run within the Node.js runtime on OS X, Microsoft Windows, and Linux. Node.js also provides an upscale library of varied JavaScript modules which simplifies the event of web applications using Node.js to an excellent extent. Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside an internet browser. Node.js lets developers use JavaScript to write down instruction tools and for server-side scripting—running scripts server-side to supply dynamic website content before the page is shipped to the user's web browser. Consequently, Node.js represents a "JavaScript everywhere" paradigm, unifying web-application development around one programming language ,

instead of different languages for server-side and client-side scripts. Though .js is that the standard extension for JavaScript code, the name "Node.js" doesn't ask a specific enter this context and is simply the name of the merchandise. Node.js has an event-driven architecture capable of asynchronous I/O. These design choices aim to optimize throughput and scalability in web applications with many input/output operations, also as for real-time Web applications (e.g., real-time communication programs and browser games). The Node.js distributed development project was previously governed by the Node.js Foundation, and has now merged with the JS Foundation to form the Open JS Foundation, which is facilitated by the Linux Foundation's Collaborative Projects program.
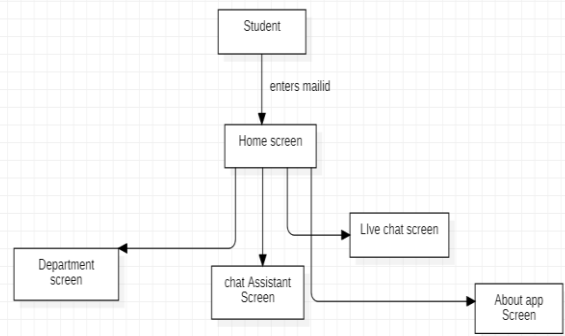
With the help of Node JS, Files are stored in Amazon AWS s3 object .sending those object URL through Postman as a JSON format and .Those Json Type Information are stored in Mongo DB Database Atlas. Chat Application is done by socket.io

Mongo DB Generation:

*Mongo DB may be **a** cross-platform, document-oriented database that gives , high performance, high availability, and straightforward scalability. Mongo DB works on the concept of collection and document. Database is a physical container for collections. Each database gets its own set of files on the filing system . A single Mongo DB server typically has multiple databases. Collection is a group of Mongo DB documents. It is the equivalent of an RDBMS table. A collection exists within a single database. Collections do not enforce a schema. Documents within a collection can have different fields. Typically, all documents during **a** collection are **of** comparable or related purpose. A document is a set of key-value pairs. Documents have a dynamic schema. Dynamic schema means documents within the same collection don't got to have an equivalent set of fields or structure, and customary fields during **a** collection's documents may hold different types of data.*

DATAFLOW DIAGRAM –

4. MODULE DESCRIPTION

4.1. User Interface Module

This module provides user's Specific College ID to login into the app. Once the user is logged in, User can select the attributes which they want to perform in the App like viewing Documents, viewing Announcements, Live Chatting, Chatbot
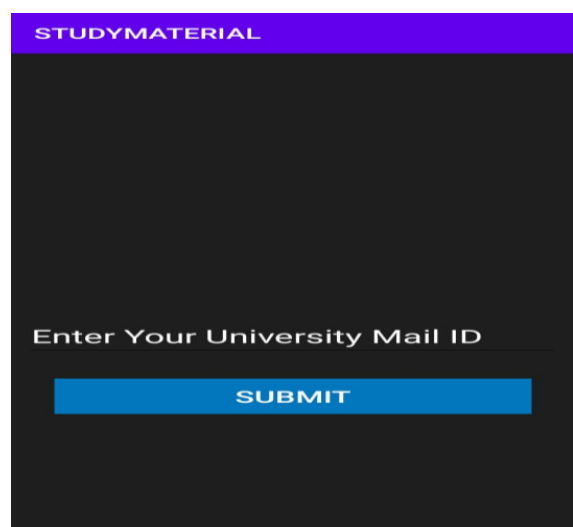
4.2. Login Module

When the user of the system confronts the login page page, they will be required to enter their college ID

4.3. Analysis Module

In this module the user specifies a particular attribute, specific Attribute will perform a specific task. It will be Discussed in the Result Section
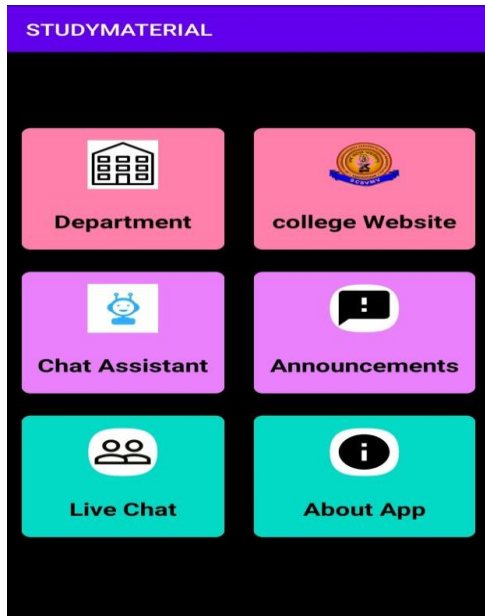
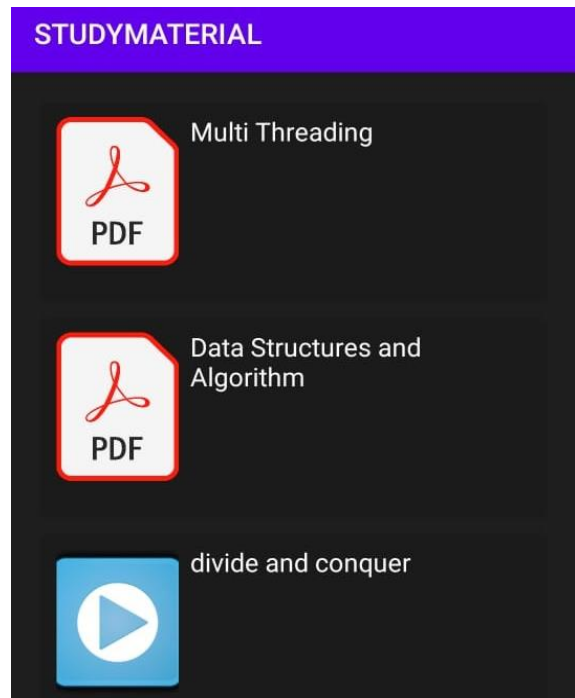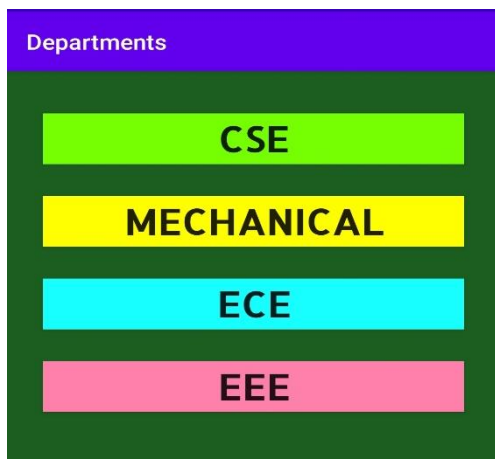### 5. RESULTS

1. *Results for College Student login*

In this screen we will be validating the email id of the student. If the entered mail id is our University mail id then the student can proceed further else they have to enter their mail id again. Only then they can access the study material android application further.
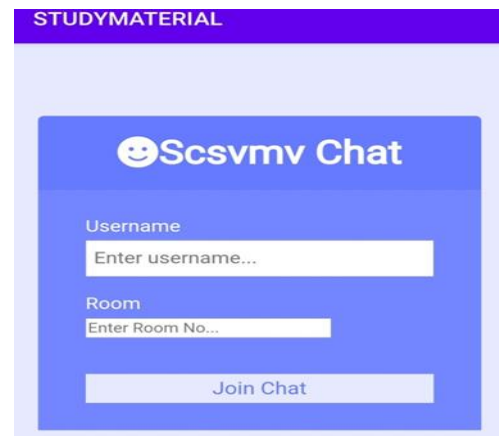
2. Results for Home Screen

This is the home screen from where the student can navigate to multiple to multiple screens

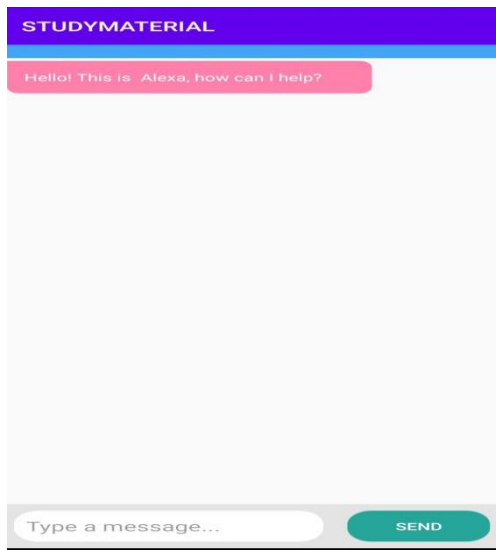3. Results for Department selection

In the above department screen the student can select the required department for which they want to view or download the available study materials.
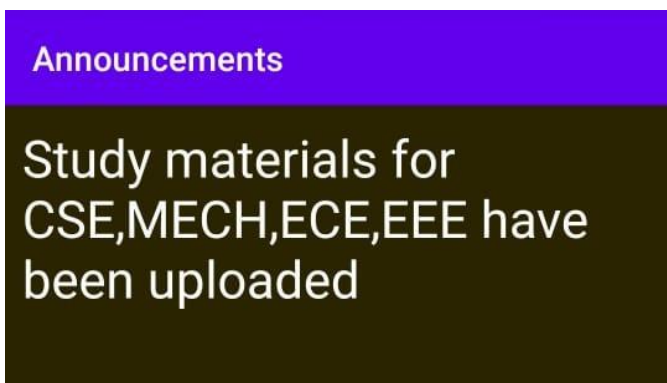
4. Results for live chatting

In the above screen the students can enter their username and number and then they can join the conversation with the staff for clarifying their doubts.

5. Results for Chatbot

The above is the chat assistant screen where the student can get some assistance from the bots available .The chat assistant can understand some basic commands like opening Our university students portal, fee payment portal etc.

6. Results for Announcements

This is the announcement section where teacher can upload their announcements

6. CONCLUSION

This study material android application ensures that students are able to access their required study materials which are essential for their academics and also improves the communication between the students and teachers in online mode

7. FUTURE ENHANCEMENT

The application can be enhanced by improving the chat assistant so that it can clarify most of the doubts of the students. Further the functionality to check the availability of a particular book in our university can be added to the application also all the study materials can be displayed within the application itself rather using the other third party apps.

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