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Study Materials Providers 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*

I. INTRODUCTION

The Study Material Android Application is specifically designed for Andhra 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.

Now a day's smart phone usage is very wider because of the advanced mobile operating system with features suitable for mobile, handheld use. They are capable of running downloaded applications (apps) 1-4. Smart phone apps are easy to use and are time saving applications. Most of the popular operating systems used in smart phones are Blackberry, iOS, Windows, and Android. In this paper we choose Android application because it is an open source and free. Today more than 70% of smart phones run on android operating system. Android applications became more popular in recent years. Usage of the applications has grown up to a greater extent since they make day to day tasks and works easy. Anyone can also download, install and use the applications easily. The application now developed by us can be installed by students. The students can access the study materials and get notified when exam dates are released. This application also alerts the students about the examination date, so that students can prepare for the exam. The students can also view the current updates and browse the important links related to the university through this application

II. LITERATURE

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

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 The availability of mobile devices and the development of mobile applications have transformed the way we access information and learn. In recent years, mobile learning has gained significant popularity in the education sector, providing students with an opportunity to access study material anytime, anywhere. Several studies have been conducted to understand the impact of mobile learning on student learning outcomes.

A. Impact & Significance

The android application that provides study material for engineering students can have a significant impact and contribute to several areas of education and technology.

- 1) **Improved Access to Study Material:** The android application will provide students with a convenient and accessible solution to access study material anytime, anywhere, without having to carry physical textbooks or notes. This can help students to stay updated and informed with the latest developments in their field.
- 2) **Enhanced Learning Experience:** The application will offer customization options that allow students to personalize their learning experience and organize their study material efficiently. This will help students to stay organized and productive while studying, enhancing their overall learning experience.

- 3) *Promoting Knowledge Dissemination:* The application can provide a platform for educators and academic institutions to share and distribute their study material to a wider audience. This can help in promoting knowledge dissemination and academic growth.
- 4) *Advancement of Mobile Technology in Education:* The development of the android application can contribute to the advancement of mobile technology in the education sector. This can pave the way for more innovative and efficient learning solutions in the future.

B. Problem Statement:

Engineering students require access to a large amount of study material that includes textbooks, lecture notes, and other learning resources to support their academic progress. However, carrying multiple textbooks and notes is not always feasible, especially for students who commute long distances to attend college. Also, it can be challenging for students to organize and manage their study material effectively. Thus, the problem that this project aims to address is to provide a comprehensive solution for engineering students to access their study material easily and efficiently. The solution involves developing an android application that can provide students with a user-friendly interface to access the study material available in different formats such as PDF, videos, and other multimedia content. The android application should provide features such as search functionality, bookmarking, note-taking, and highlighting, to make the studying experience more interactive and productive. Additionally, the application should offer customization options that allow students to personalize their learning experience and organize their study material efficiently. Overall, the proposed android application should aim to provide engineering students with an all-in-one solution to access and manage their study material effectively, thus addressing the challenges they face in traditional methods of studying.

C. Proposed System

This application is mainly useful for the students in preparing for examinations. exam reminder system is one of the features of this application. In this application the student can choose any branch in Engineering. This application provides study material for each subject of that particular branch and provides syllabus and important topics of each subject which is very useful for preparing for exams. The study material get stored in the database so that the student can view the study materials of the subject. The details stored in the database are name of the branch, subjects present in that branch and study materials of that subject etc. For example if a student select Computer Science branch then the application displays the subjects present in that branch. Then the student have to select the subject which he wants to read the material.

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 Android Studio and uploaded to JDK. 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.

III. IMPLEMENTATION

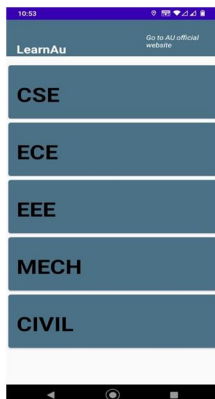
- 1) The application installation requires user of app to enter his “name” and “emailaddress” at Register screen.



2) The application installation requires user of app to enter his “email address” and “password” at login screen.



3) The application home page will display the list branches in Engineering. With we can simply browse the document that we are search for list of branches.

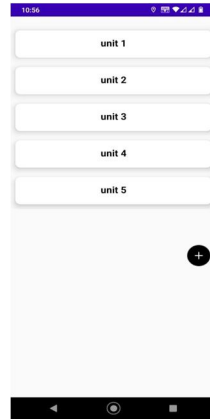


4) In this page list of subjects are displayed in each branch. here we use RecyclerView to display the list of the subjects. And there is a search option to search the subject by name.

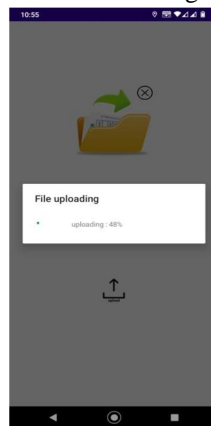


5) This page contains 4 buttons which are :

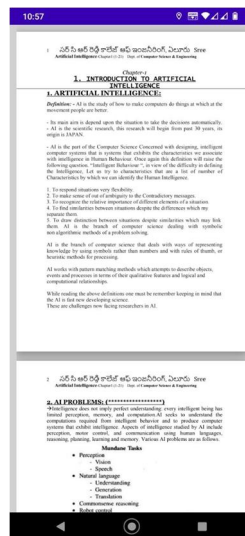
- Materials
- Syllabus
- Previous papers
- Important topics



6) In this page we have to select a file from device and then we have to give a titleso that the title is displayed on the resource file.



7) In this page we can finally view the file that are selected. It is the final stage ofthe application



IV. ANDROID STUDIO

Android Studio is the official Integrated Development Environment (IDE) for Android app development. Based on the powerful code editor and developer tools from [IntelliJ IDEA](https://www.jetbrains.com/idea/), Android Studio offers even more features that enhance your productivity when building Android apps.

Android is a platform architected in the form of a software stack. The stack components consist of applications, application frameworks, run-time environment, libraries and Linux kernel [1]. The operating system is developed by Google and is made open source so that users can extend the functionality and usefulness of applications. The android applications are developed in java using android software development kit [2].

An android application is built of different types of components. Each type serves a distinct purpose and has a distinct lifecycle that defines how the component is created and destroyed. The application components are activities, services, broadcast receivers, content providers. These components are loosely coupled by the application manifest file AndroidManifest.xml. This file has all the essential information about each component of the application and how they interact [3].

An activity in android represents a single screen with which the user interacts. A single application can contain several activities that are bound together. Among these several activities only one can be the main activity which handles the main UI functionality when application is launched. Though an application can have several activities, only one can be in active state at a time. Each time when a new activity starts previous activity is stopped but the data is preserved [4].

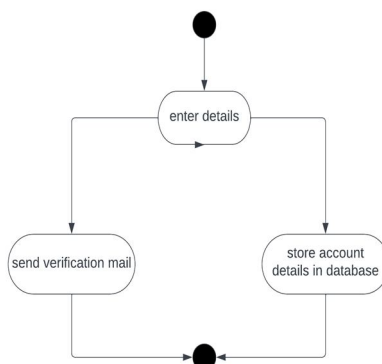
- 1) *Active or Running*: An activity in the foreground of the screen (at the top of the stack) receiving user input.
- 2) *Paused*: An activity is visible but will not have focus.
- 3) *Stopped*: A stopped activity is not visible to user, but will remain in memory retaining all state information.
- 4) *Inactive*: An activity that is killed or not yet launched, it's inactive. An inactive activity does not exist on activity stack.

Fragment is a modular approach to design activity. Fragments are mainly used to build a dynamic user interface where it is required to encapsulate UI components and behavior of activity into modules. These modules are created using Fragment class within an activity. A single activity can contain multiple fragments to build a multi-pane UI having their own layout and lifecycle. Fragments are like sub activities that can be reused in different activities [6].

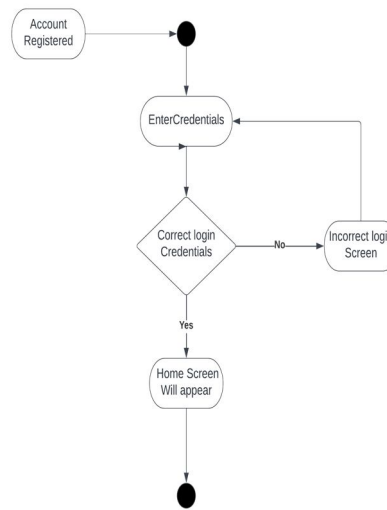
A. Setup for Android Application Development

- 1) *JDK Software*: A Java Development Kit (JDK) is an environment for writing Java applications. It consists of tools that developers need to compile, debug and run Java applications. One can download the appropriate setup version of JDK from Oracle's website and follow the instructions of setup wizard to install and configure JDK. And then, edit the JAVA_HOME from environment variables to point to directory where the JDK software is located.
- 2) *Android SDK*: An Android SDK is a software development kit that allows developers to create applications on the Android platform. It includes sample source code, development tools, an emulator, debugger, and required libraries to build Android else { Toast.makeText(getActivity(), "Location not found", Toast.LENGTH_LONG).show(); } };
- 3) *Android Studio IDE*: We can download the android studio IDE from android developer's website by clicking on download link. After the .exe file is downloaded click on the file and follow instructions on the setup wizard to complete installation [9].

B. Dataflow Diagram



Registering Account



Login Account

V. 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. The Android app for engineering students' study materials has the potential to be a valuable resource for students seeking additional learning materials to supplement their coursework. The main goal of the app is to provide a convenient and accessible platform for engineering students of all levels to access a wide range of study materials

VI. 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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