

## Study Pro: A Flutter based Application

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**ABSTRACT-** This year, mobile applications continued to become more popular because of pandemic. It is obvious that mobile devices have been more convenient and flexible for most of the student's educational life and is becoming a learning tool which is feasible in both classrooms and outdoor learning. This paper shows how Study pro software application can help out Engineering students to be updated with learning resources irrespective of operating systems such as IOS, Android and Web for all branches in order to make a student's life more efficient as they can fetch any resources they are looking for, at any point of time which is just a "click away".

**Key Words :** Educational Apps, Tutelage software, E-learning platform.

### 1. INTRODUCTION

Universities are gradually opening up to 'Virtual Learning Environments' (VLE) opportunities, often used alongside MLEs (Managed Learning Environments). New universities are currently making more (and more effective) use of VLEs (post 1992). Therefore, older, more 'conventional' universities feel the need to 'catch up' and are thus starting to invest in this technology. The VLE definition is still relatively fresh, and some institutions currently use it only on the basis of a trial/pilot scheme. Currently, most VLEs are supported by purpose

built applications like Blackboard and WebCT. Microsoft allows VLEs to be set up via MS Exchange as well. There is currently no agreement on precisely what a VLE can contain or how it can be best used. The device is considered to be of great value to students. This helps distance learning students to maintain a stronger sense of community and, where these students might have previously felt lonely, they can know others more easily on the course. Students can carry out more learning at a distance and at times which is convenient to them, rather than convenient to the University and its staff. COVID 19 has resulted in universities being shut down all over the world. About 1.2 billion students worldwide are out of the classroom. As a consequence, with the distinctive growth of e-learning, education has changed drastically, with teaching being carried out remotely and on digital platforms. In certain parts of the world, some are asking if the acceptance of online learning will continue to persist after the pandemic, and how such a change will continue would impact the worldwide education market. We have now realized the importance of e-learning platform. The main purpose of e-learning platform was to provide a place for students where they can acquire the learning resources in a single application. A click of a mouse button provides any student anywhere with unprecedented opportunities to learn.

### 2. DESIGN AND DEVELOPMENT

#### 2.1. Objectives

- The hybrid application will provide university services in a mobile friendly format. It is a pocket guide where students can access required information and knowledge within a frequent time.
- Objectives include written notes, study materials, YouTube videos, PPT, Reference papers, links which refer to a website to prepare for online competitive exams.
- Application is user restricted where students of our institute only can access the information.
- In a limited time frame, this application tends to define basic, discrete units of information and skills that can be achieved.

## 2.2 Tools and Technologies used

**FrontEnd:** Flutter Toolkit is a Google crossplatform technology that allows us to build mobile, desktop application programs that use the Dart programming language, which is based on the infamous Java in turn.

### **BackEnd:**

Flutter uses Firebase to provide access to mobile app backend resources such as storage, database, authentication and hosting without running your own server.

### **Tools:**

- 1) Android Studio – To download android SDK in order to install Flutter.
- 2) Visual Studio Code – To run the application.
- 3) Dart Dev Tools – It is a suite of Dart and Flutter debugging and output software.
- 4) Flutter SDK and Flutter Inspector – It visualizes and explores flutter widget tree.
- 5) Hot reload – It loads code changes into the VM and re-builds the widget tree.
- 6) Firebase – To build, improve, and grow your app.
- 7) Code Formatting – To make any markup easier to understand, maintain, and troubleshoot.

## 2.3 Methodology

Initially, Student have to sign-up where they will give their information such as USN, name and date of birth and in return they will receive a confirmation email. Later they can login using their email-id and date-of- birth. The login credentials of every candidate will be stored in database. After logging-in student will get options wherein they can choose their respective branches and can fetch aptitude question papers of different companies, project ideas and all academics related learning resources and there is a feature where students can download resources and share. There is a forum where students can clear their doubts.

## 2.4 Contribution

For each reason, students are more motivated to use a smartphone, the world is at the fingertips, which reduces visiting a library and searching for data. As Learning is a continuous process you can refresh basics you can skip and study the only part you are interested. This hybrid application has a unique feature which offers its own set of complete services. Facilitating required complete educational elements of academics.

## 3. Existing Systems

**Udemy** Udemy is a great place to learn new skills and take lessons. One thing about Udemy is that a course can be produced by anyone. To publish a lesson, you do not have to be an expert. Therefore, the course in which you participate must be selective. The positive thing is that you can easily decide which courses are good and which are best left untouched. If it has five stars, use the course ratings to your benefit, then it is definitely an excellent course. If a lot of students are enrolled in one specific course, it has been popular in the past. You can get emails about all of their offers, from \$10 to \$1000 promotions, by subscribing to Udemy. One of the best features of Udemy is the variety of instructors, and if you do not like the course, you can get a full refund.

**Edx:** With many dropping into the sciences, EDX has a wide variety of higher education courses. Their self-paced and timed classes are one key aspect. In other words, you can go through these courses at your own pace if you are busy all the time. Usually, the classes range from four to twelve weeks, and each course has a video transcript. EDX uses cool tools such as gamified laboratories and videos and other items such as the 3D virtual molecule builder. The framework is open source, which allows developers to build and distribute modules for evaluation. EdX applicants may obtain free proof of registration or Honor Code Certificates, but the student may not earn credentials such as a diploma. EdX offers two types of certificates. Checked certificates prove your identity by a photo and ID, and only your completion of the course is verified by the Honor Code Certificate.

### ***Coursera:***

The largest variety of courses is available at Coursera.

They also offer free or low cost services, including the provision of financial assistance. They have self-paced courses, on-demand courses, and classes that are timed. Classes typically vary from four to twelve weeks. Most of the Coursera courses are free of charge, and others require a small fee to take part in credential and specialization programs, or a series of classes that involve a capstone project. It is possible to post these certificates on LinkedIn as well.

### ***Udacity:***

There are a wide range of classes at Udacity, particularly in programming and computer science. Coaching, reviews, and validated certificates include their paid services. To build courses that are credited, Udacity partners with universities and also has programs called nano degrees. More like vocational school than University style classes, Udacity has a relatively limited catalog of courses. The content of the Udacity course is free, but you have to pay for a checked certificate and the rates are typically higher than those of Coursera and EdX.

## **3.1 Proposed Systems**

The Proposed system can overcome the limitations of existing system, Where the System provides proper access to learning resources together in single application which reduces dawdling. The feature to share and download is aid for students to study offline at any point of time. Students can fetch aptitude papers and project ideas for reference which will be exceptional. This reduces the risk and stress of losing and missing classes irrespective of operating system used by students.

## **4. CONCLUSIONS**

The learners demand on the study of learning anytime and anywhere will be concluded. Educational Apps are becoming a new direction of growth for mobile learning. With the foremost development of mobile terminal hardware and wireless network of technology, the application of Apps is becoming more reliable. The learner's awareness and use of educational Apps continues to improvise. This hybrid application apathetic towards all sort of users (IOS, Android, Web).

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