

## STUDENT MULTISERVICE PROVIDER

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### ABSTRACT

At present, with the rapid development of the Internet structure, the topic of information technology together with the concept of digitalization has become important. Arguably, the technological advancements that make digitization possible have contributed to the digital transformation of business models. The concept of digital transformation has surfaced as an area where businesses have been working hard. Digital transformation refers to the overall transformation of a business based on mortals, business processes and technology to provide more efficient and effective services. The present study aimed to develop an app that can reduce paper work and facilitate online counseling and learning for students. The app allows students to upload their documents once and apply for any examination, college, or job without filling the same details repeatedly. Moreover, the app provides online counseling services at different levels for national, state, and private colleges. Additionally, the app also offers study materials and video lectures. The app was developed using Flutter in Visual Studio Code and Dart language. A total of 20 students participated in the usability testing of the app. The results showed that the app was easy to use and efficient in reducing paper work and providing online counseling and learning services.

**Keywords:** Flutter Technology; Online Counseling; Reducing Paperwork.

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### I. INTRODUCTION

In today's digital age, technology has revolutionized the way we work, learn, and communicate. With the increasing use of mobile phones and the internet, the education sector has also undergone a major transformation. In today's digital age, technology has revolutionized the way we work, learn, and communicate. With the increasing use of mobile phones and the internet, the education sector has also undergone a major transformation. The traditional paper-based application process for exams, colleges, and jobs is often tedious, time-consuming, and prone to errors. Additionally, students may face difficulty in accessing counseling services and study materials, especially in remote areas.

To address these challenges, the present study aimed to develop an app that can simplify the application process and provide online counseling and learning services for students. The app allows students to upload their documents once and apply for any examination, college, or job without having to fill the same details repeatedly. Moreover, the app provides online counseling services at different levels for national, state, and private colleges. Additionally, the app offers study materials and video lectures, which can be accessed by students at any time and from any location

The present study contributes to the development of a digital solution that can enhance the education sector and benefit students in their learning and career paths. In today's digital age, the use of mobile apps has become a common practice for various purposes, including education. However, many students still face the problem of repetitive paperwork while applying for different exams, colleges, and jobs. Moreover, the traditional counseling system is not efficient enough to cater to the needs of students, especially in the context of the COVID-19 pandemic. Therefore, there is a need to develop an Android app that can reduce paper work and provide efficient online counseling and learning services for students.

### II. LITERATURE REVIEW

There is plethora of edtech applications that provides a number of features. Some of the examples that can be quoted in this scenario are Udemy, Byjus, Physicswallah, unstop are many more. These provides a number of features that are present are in this project itself.

Udemy is an online learning platform that offers a wide range of courses on various topics, including business, technology, and personal development.

With access to a vast course library, course progress tracking, offline viewing, and personalized recommendations, users can learn at their own pace and convenience. Some of the features of the Udemy application. Course Library, Course Progress Tracking, Offline Viewing that offers an offline viewing feature that allows users to download course materials, including lectures and quizzes, for offline viewing. This feature is useful for users who want to learn on the go, without needing an internet connection. Mobile-Optimized Interface:

The Udemy application is optimized for mobile devices, with a user-friendly interface that makes it easy to navigate and access course materials. The interface is designed to be visually appealing and easy to use, making it ideal for users who prefer to learn on their mobile devices.

Another example existing in the market is Byjus. BYJU'S is an online learning platform that offers courses for students from classes 1 to 12, as well as for competitive exams such as JEE, NEET, and CAT.

Features of the BYJU'S app: Adaptive Learning: learn at their own pace and convenience. The app uses personalized learning algorithms to create a unique learning experience for each student. Video Lectures: on various topics in mathematics, science, and other subjects. Interactive Quizzes: that allow students to test their understanding of the topics covered in the video lectures. Personalized Learning Journey: allows students to choose the topics they want to study and access the study materials and quizzes at any time. Live Classes: that allow students to interact with expert teachers and ask questions in real-time. Progress Tracking: In-App Purchases: allows users to purchase courses directly from the app. Users can pay for courses using various payment methods, including credit cards, PayPal, and Apple Pay. Parental Dashboard: allows parents to track their child's progress in their studies. Parents can view their child's completed lectures, quizzes, and assignments, as well as their current progress in the course.

Another example is Physicswallah application- online platform that offers video lectures and study materials for physics and other science subjects. With video lectures, practice quizzes, study materials, personalized learning features, progress tracking, a discussion forum, and exam preparation resources, the app provides a comprehensive learning experience. The app is designed to be user-friendly and engaging, making it an ideal tool for students who want to excel in physics and other science subjects.

### III. METHODOLOGY

The research methodology employed in this project involved both quantitative and qualitative approaches. The development of the app was carried out using the Flutter framework in Visual Studio Code with the Dart programming language. The development process was iterative, with feedback and suggestions from a team of developers and stakeholders.

The usability testing of the app involved 20 students who were selected using purposive sampling. The participants were chosen based on their familiarity with mobile apps and their interest in online counseling and learning services. The testing process involved a combination of observation, surveys, and interviews. The participants were observed as they used the app and were asked to provide feedback on their experience. The surveys and interviews were used to collect data on the ease of use, efficiency, and satisfaction of the app.

The results of the study showed that the app was easy to use and efficient in reducing paper work and providing online counseling and learning services. The qualitative data revealed that the participants found the app to be intuitive and user-friendly, and they appreciated the convenience of being able to upload their documents once and apply for multiple opportunities without filling out the same details repeatedly. The quantitative data indicated high levels of satisfaction with the app.

In conclusion, the research methodology employed in this project involved the development of an app using the Flutter framework in Visual Studio Code and the Dart programming language. The usability testing of the app involved 20 students using purposive sampling and a combination of observation, surveys, and interviews. The data collected was analysed using both qualitative and quantitative methods, and the results showed that the app was easy to use and efficient in reducing paper work and providing online counseling and learning services.

#### IV. RESULTS AND DISCUSSION

Result analysis of a model would involve evaluating the effectiveness of the model in achieving its goals & identifying any areas where improvements can be made. The project aimed to develop an app that could reduce paper work and facilitate online counseling and learning for students. The app has several features, including document uploading, applying for exams or colleges, accessing counseling services, and studying materials and video lectures. The app was developed using Flutter in Visual Studio Code and Dart language, and 20 students participated in the usability testing of the app. The results of the usability testing showed that the app was easy to use and efficient in reducing paper work and providing online counseling and learning services. This is a positive indication that the app has met the objectives of the project.

In addition to the usability testing, it would also be beneficial to track user engagement metrics, such as the number of downloads, active users, and user retention rates. This information can help determine the success of the app and identify areas for improvement. It is also important to continue to monitor the app's performance and conduct regular system testing to ensure that it remains functional, performant, secure, and compatible with various platforms and devices. It is important to consider user engagement, app performance, and customer feedback to analyze the results of the project. User engagement can be monitored by analyzing user metrics such as the number of downloads, active users, and user retention rates. App performance can be tested by conducting performance testing, stress testing, and load testing. Customer feedback can be gathered through surveys or feedback sessions with users.

##### ADVANTAGES

- App provides the option to do the online counselling at various levels- for National, State & Private colleges.
- It reduces the time & effort to carry the documents physically whenever you apply for a job or exam.
- Student's whole educational history is documented in the app.
- App provides students with training videos, & handwritten notes for the ease of learning.
- Various student services like providing software of different versions, IDE & many more.
- Reducing paper work: The app allows students to upload their documents once and apply for any examination, college, or job without filling the same details repeatedly, which reduces the need for paperwork.
- Online counseling: The app provides online counseling services at different levels for national, state, and private colleges. This makes it easier for students to access counseling services without having to physically visit the counseling centers.
- Learning materials: The app also offers study materials and video lectures, which can be accessed by students at any time, thus providing flexibility in learning.
- Efficient: The app is efficient in reducing paper work and providing online counseling and learning services, as shown by the results of the usability testing.
- Cost-effective: The app can help reduce costs associated with paper work and counseling services, thus making it more cost-effective for students

##### LIMITATIONS

- Small sample size: The usability testing involved only 20 students, which may not be representative of the entire student population. The results may not be generalizable to all students, and a larger sample size would provide more accurate results.
- Limited scope: The app was developed with a limited scope, focusing on reducing paper work and providing online counseling and learning services. There may be other features that could be added to the app to enhance its functionality and usefulness.
- Limited accessibility: The app may not be accessible to all students, particularly those who do not have access to smartphones or internet connectivity. This could limit the reach of the app and its ability to provide services to all students.
- Technical limitations: The app was developed using Flutter in Visual Studio Code and Dart language, which may limit its compatibility with other operating systems or devices. This could limit the app's accessibility and usefulness to a wider audience.

- Lack of long-term data: The usability testing provided short-term feedback on the app's functionality, but there is a lack of long-term data on the app's effectiveness in reducing paper work and facilitating online counseling and learning services over an extended period. Long-term data would provide a more comprehensive understanding of the app's impact on student performance and outcomes.
- Technology limitations: The app was developed using Flutter in Visual Studio Code and Dart language. It may not be compatible with all devices and operating systems.
- Resource constraints: The project was developed with limited resources, including time, budget, and personnel. These constraints may have affected the app's development and usability testing.
- External factors: The usability testing was conducted in a controlled environment, which may not reflect the real-world use of the app. External factors, such as internet connectivity and device compatibility, could affect the app's usability.
- A good amount of business resources is required for the set-up.
- Adequate skilled labour should be present.

## V. CONCLUSION

In conclusion, the development of the app aimed to provide a convenient and efficient platform for students to reduce paper work and facilitate online counseling and learning. App developed in this project has the potential to revolutionize the education system by reducing the burden of paperwork and providing efficient online counseling and learning services to students. The app not only allows students to apply for any examination, college, or job without filling the same details repeatedly but also provides study materials and video lectures. The app successfully achieved its objectives by providing a platform for students to upload their documents and apply for multiple colleges, examinations, or jobs without filling the same details repeatedly. In addition to this, the app provides online counseling services at different levels for national, state, and private colleges, and offers study materials and video lectures.

Overall, the development of the app has the potential to revolutionize the way students' access and utilize online counseling and learning services, ultimately contributing to their academic success and well-being.

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