UNIVERSITI MALAYSIA TERENGGANU

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FACULTY OF COMPUTER SCIENCE AND MATHEMATICS

CSM3114

FRAMEWORK – BASED MOBILE APPLICATION DEVELOPMENT

PROJECT REPORT

E-COURSE APP

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EXECUTIVE SUMMARY

The proposed e-course application strives to enhance the learning journey by presenting users with an intuitive platform. Through this platform, users can seamlessly access, enrol in, and manage various courses. The incorporation of a robust user authentication system ensures secure access, allowing individuals to personalize their learning experience. Administrators benefit from features like course addition and scheduling, enabling efficient management of educational offerings. Simultaneously, students can easily enrol in courses of their choice, fostering a flexible and user-centric approach to education. Additionally, the application includes a module dedicated to viewing examination results, providing users with a comprehensive overview of their academic progress.

In the realm of digital education, an e-course app serves as a pivotal platform, offering learners a convenient and accessible environment for remote learning. The app acts as a bridge between traditional classroom methods and contemporary digital approaches, presenting a diverse array of courses spanning various subjects and skill levels. The overarching goal is to provide individuals with flexible learning opportunities, empowering them to acquire new knowledge and skills at their own pace and convenience. By embracing technology, the e-course app becomes a holistic solution that adapts to the evolving landscape of education, catering to the diverse needs of modern learners.

In summary, the e-course application stands as a technological catalyst for academic excellence. Through its user-friendly interface and innovative features, the app not only simplifies course management but also fosters a dynamic and engaging learning environment. As the app leverages technology to bridge gaps and enhance the overall learning experience, it emerges as a comprehensive solution for the modern education ecosystem.
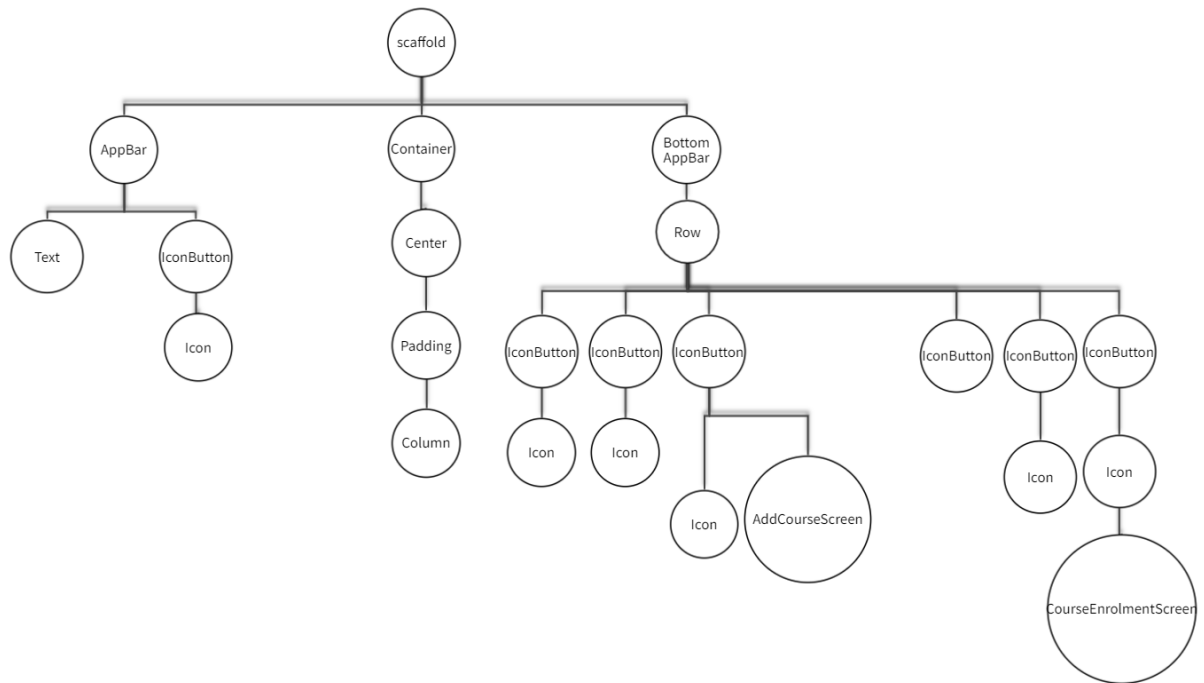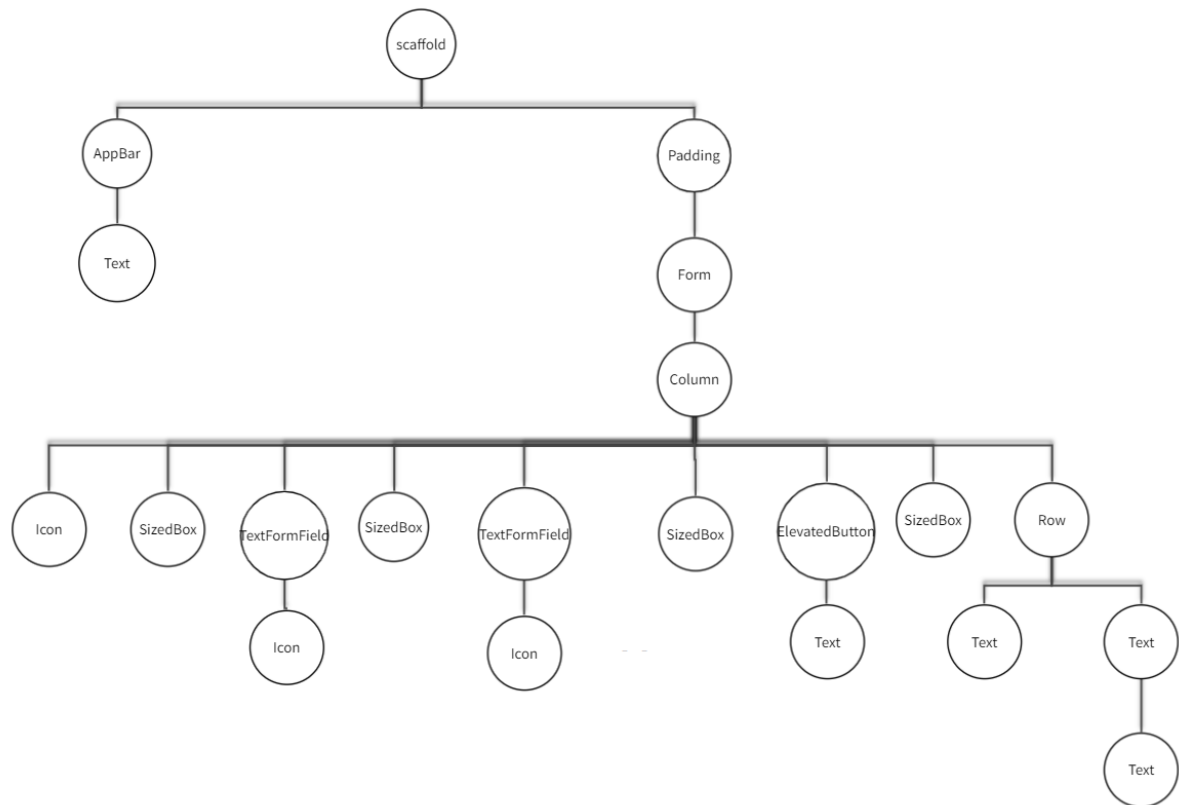
USE CASE
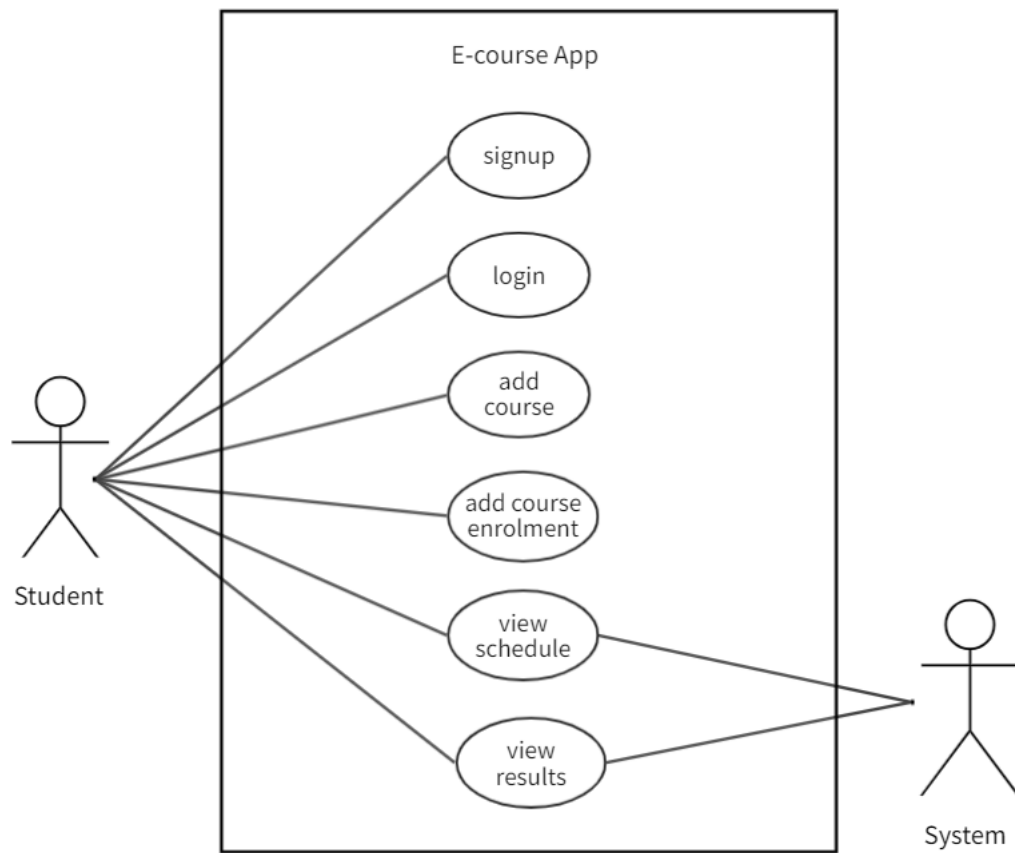
This use case show that the student can signup, login, add course, add course enrolment, view schedule and view results while the system can view schedule and view results.
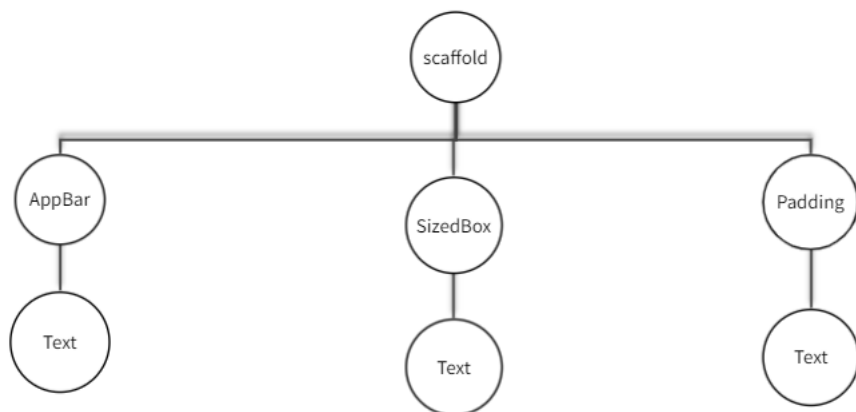
COMMON STRUCTURE OF TREE WIDGET

Homepage screen

Login Screen

Add course screen

FLUTTER WIDGETS AND FEATURES ADOPTED IN THE APPLICATION

The E-course Application have been thoroughly designed with widgets and features to provide the user with the interesting user interface. The combination of intuitive widgets and thoughtfully designed features contributes to the overall functionality and aesthetics of the application.

Widgets

1. BottomAppBar

The 'BottonAppBar' widget is used as the bottom navigation bar for app. It is a horizontal app bar that placed at the bottom of the screen to provide navigation to another screen.

2. ElevatedButton

'ElevatedButton' is a button widget in Flutter that provides appearance on the screen giving a sense of elevation. When the user tap the button, it will navigating to a new screen.

3. TextFormField

'TextFormField' is a Flutter that provides form field with label, hint text, and input validation capabilities. It is particularly useful in forms where you want to capture user input and potentially validate it before processing.

4. Text

Text widget is used to display a string of text on the screen. We can customize the appearance of the text using properties like `style`, `textAlign`, `overflow`, and more.

5. Features

a) User Authentication

Authentication ensures that only authorized users can access specific resources or perform certain actions, protecting against unauthorized access and potential data breaches.
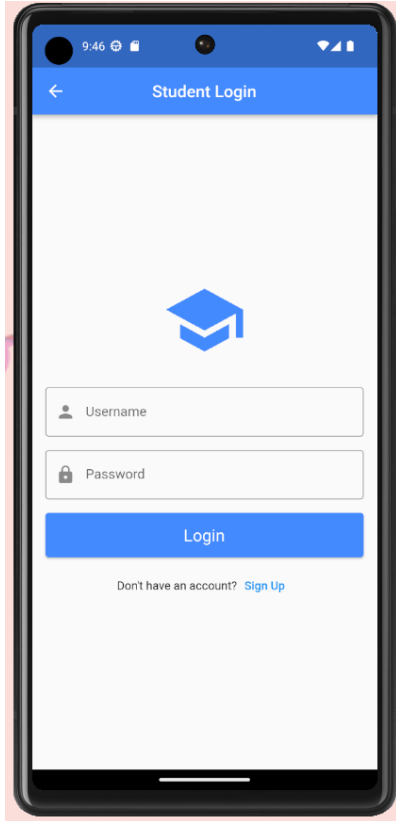
b) View Scheduled Course

With the view of schedule feature, students can view their schedule. The ListView.builder widget fill the user interface with the information that they need to know.
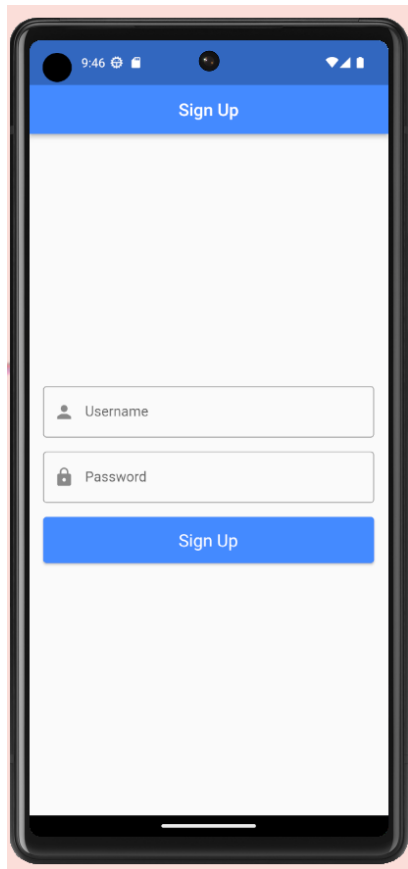
SAMPLE OF INTERFACE WITH EXPLAINATION

Login interface

On this screen, the student can login when they enter username and password. If they do not have account yet they can sign up first and then login.

Sign up interface

This screen show that if the user do not have any account yet they can sign up by enter username and password and then they can login like usual.

Homepage interface

This screen show the interface of the homepage. In this screen it is show the bottom app bar that consist of home button, schedule button, add course button, exam results and course enrolment that will navigate to their screen if user clicked.

Schedule course interface
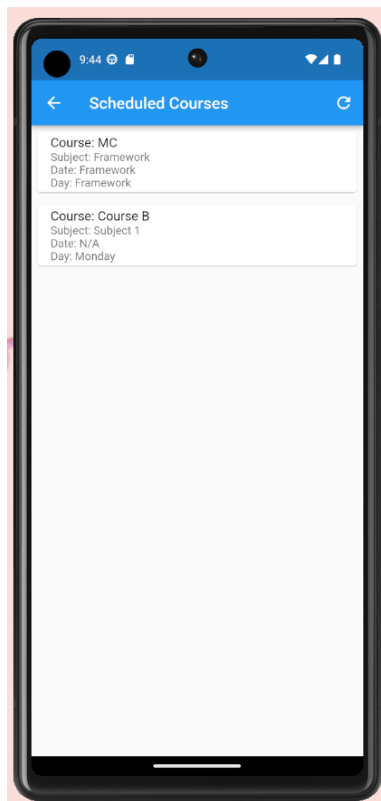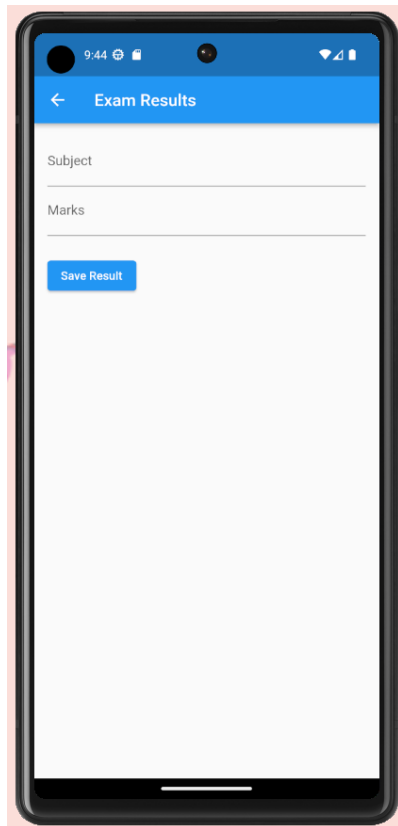

This screen show schedule course that display all the course, subject, day, and date of the student schedule for the class.

Add course interface
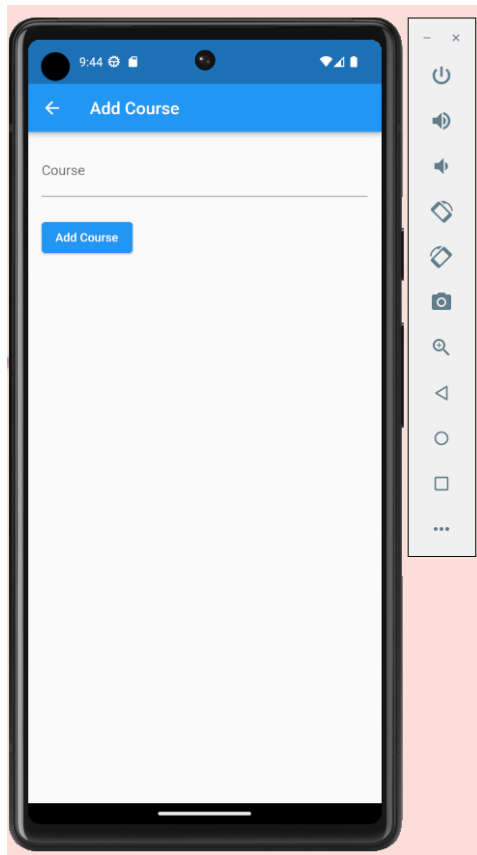
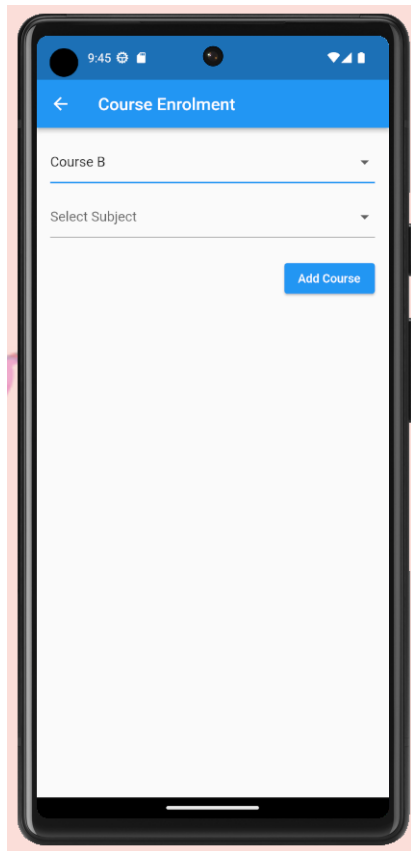This screen will make the user to add the new course they want to enter. The data will be saved in the database.

Exam results interface

This screen will make the user to submit their subject and the marks and will be display in another screen.

Course enrolment interface

This screen show the course enrolment that can help the student to enrol their course and subject ant the data will be save in the database.

CONCLUSION

In conclusion, the e-course application represents a transformative solution in the realm of digital education, bridging traditional learning paradigms with innovative technological advancements. By prioritizing user-centric design, seamless accessibility, and comprehensive course management, the app redefines the boundaries of academic excellence. It empowers learners with the flexibility to access a myriad of courses at their convenience while offering administrators the tools to curate, schedule, and evaluate educational content effectively. As the educational landscape continues to evolve, the e-course app stands as a testament to the potential of technology in enhancing learning outcomes, fostering collaboration, and promoting lifelong learning opportunities for individuals worldwide.

REFERENCES

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3. *Using packages*. (n.d.). Flutter. Retrieved from https://docs.flutter.dev/packages-and-plugins/using-packages

4. *Widget catalog*. (n.d.). Flutter. Retrieved from https://docs.flutter.dev/ui/widgets

GITHUB LINK

https://github.com/syafinatul/ecourse_app