UNIVERSITI MALAYSIA TERENGGANU

**BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING)
WITH HONOURS**

SEM I (2023 / 2024)

CSM 3114:

Framework-Based Mobile Application Development

Project 1 - UMTContact

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DEVELOPING THE UNIVERSITY PERSONAL MOBILE APPS PROTOTYPE

1. <u>Executive summary of the prototype</u>

University Malaysia Terengganu's innovative mobile application, the "UMTContact," is a revolutionary solution designed to transform the university community's daily lives and enhance campus life through seamless digital experiences. The application focuses on providing up-to-date information, smart services, and personalized interactions to improve efficiency and collaboration within the university community.

UMTContact is a simple yet with a user-friendly interface, offering two to three easy steps for users to register and access its features. The app's primary functionality is a 'Save Contact' feature, allowing users to store essential information such as names, matriculation numbers, and phone numbers. This functionality serves as a source of productivity, enabling users to manage their contacts efficiently.

The design of UMTContact is rooted in design thinking and user-centric principles, ensuring an intuitive and personalized experience for every user. The application's adaptive, flexible, and intelligent design makes it a versatile tool for the university community, promoting a smart campus environment for university. UMTContact aligns with the vision of the university's student affairs department by not only enhancing the daily lives of students but also presenting a commercialization opportunity for the university. The app's commercial viability lies in its potential to be offered at a suitable price, unlocking new opportunities to improve productivity and empower the university community.

In conclusion, UMTContact is poised to become a cornerstone of University Malaysia Terengganu's digital ecosystem, fostering a connected and efficient campus community. With its focus on simplicity, personalization, and adaptability, UMTContact is a strategic investment that promises to elevate the university's commitment to a smart campus environment.
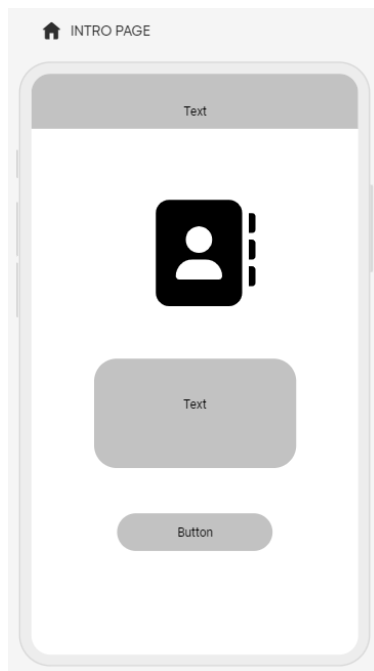
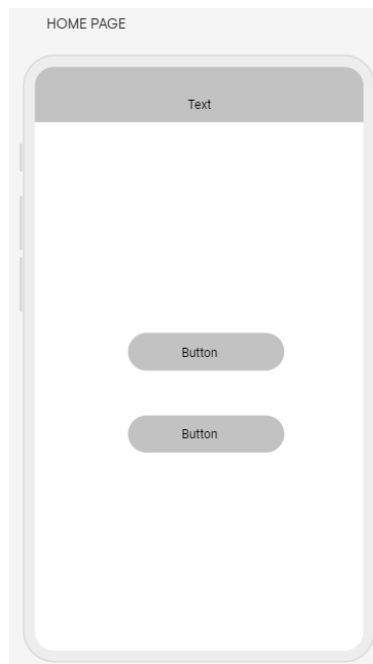## 2. The prototype designs.

Figure 2.1
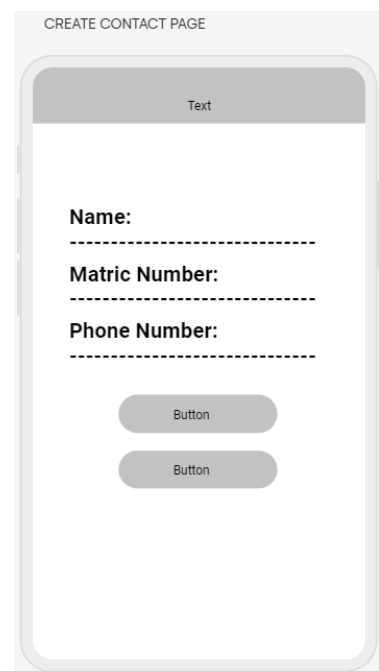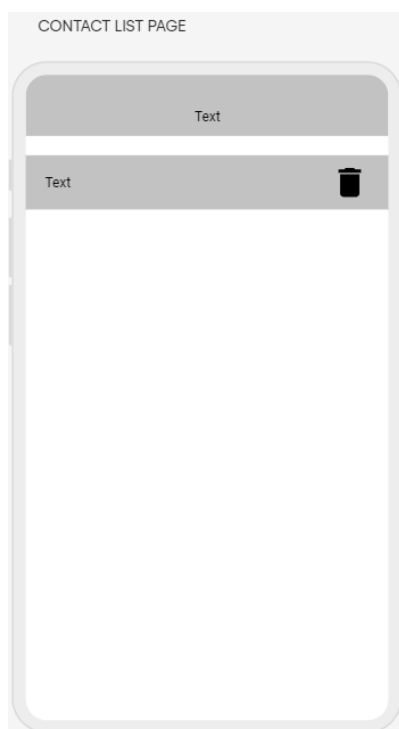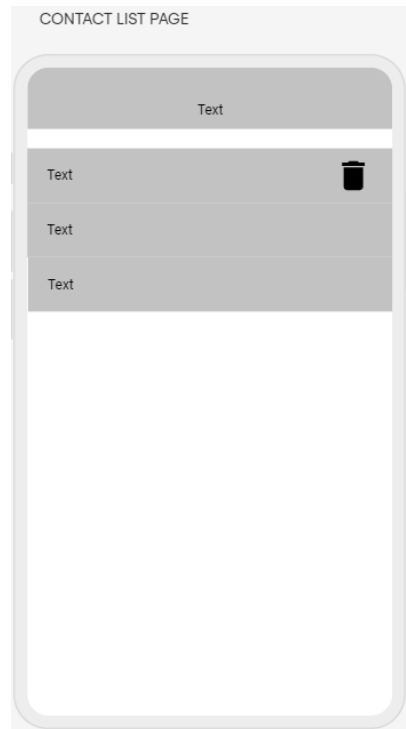
Figure2.2

Figure 2.3

Figure 2.4

Figure 2.5

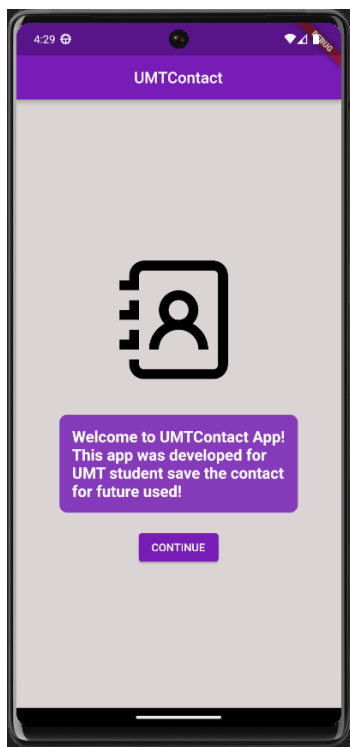## 3. The UI for the application with explanation

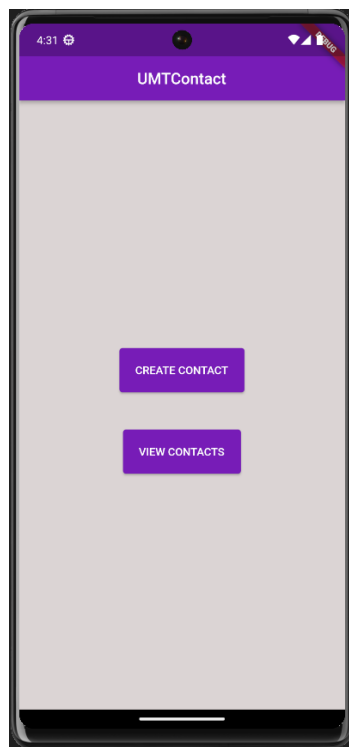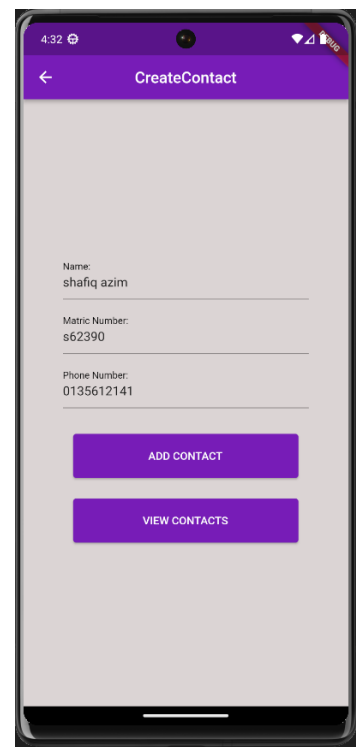| Figure 3.1 | Figure 3.2 | Figure 3.3 |

Introduction Page

Figure 3.1 show the first page that serves as an introduction page about the application to user. Some user may question the purpose of this application. This page has a '**continue**' button to proceed to the next page which is **Figure 3.2.**

Home Page

Figure 3.2 show the main page. there are two different buttons. The **'create contact'** button is used to register new contacts to the application while the 'view contact' button is used to view contacts that have already been registered.

Create Contact Page

Figure 3.3 show the create contact page. When the user presses the **'create contact'** button then this page will be displayed. There are **'name'**, **'matric number'**, and **'phone number'** that need to be filled in before adding a contact. The **'add contact'** button serves to save the data that has been filled in and the **'view contacts'** button serves to take the user to see the list of contacts that have been added.
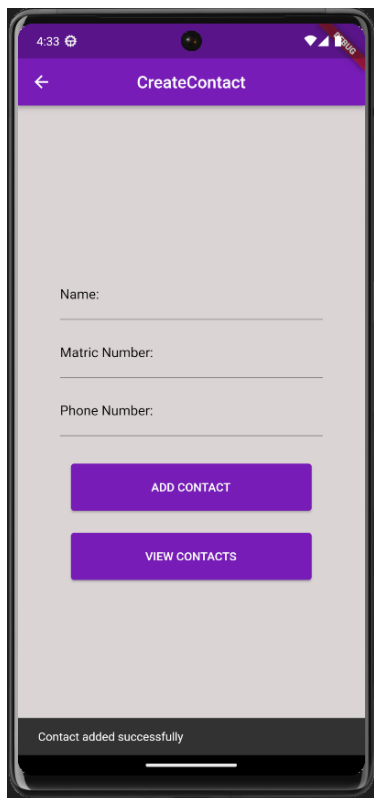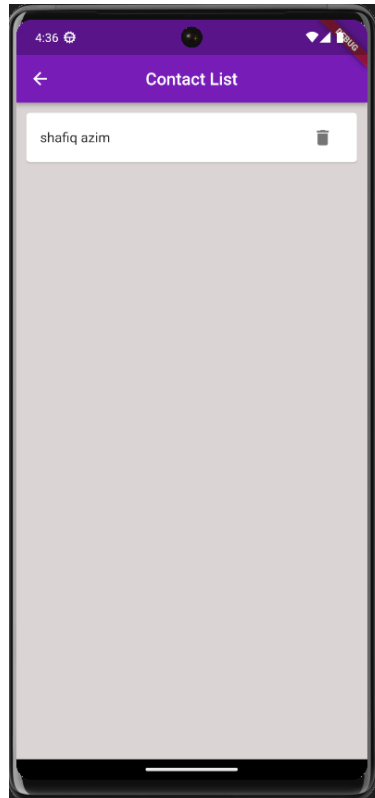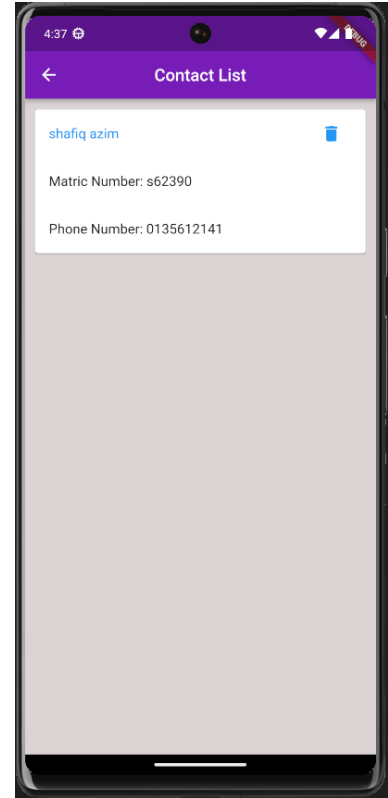
| Figure 3.4 | Figure 3.5 | Figure 3.6 |

Data that has been filled in and after **'add contact'** button has been pressed, then **'contact added successfully'** like **Figure 3.4** will appear indicating that all data entered has been successfully saved.

Contact List Page

Figure 3.5 show the contact list page. This page used to see the list of contacts that have been saved in the system. Users can access this page through the **'view contacts'** button at the home page **(Figure 3.2)** or access it through the **'view contacts'** button on the create contact page **(Figure 3.3).** When the name in the list in **Figure 3.5** has been clicked, it will display the details of the information **(Figure 3.6)** that the user has filled in on the create contact page before. There is also a **'trash bin'** icon that works to delete contacts in the list.

4. <u>Potential commercial value and the pricing of the prototype</u>

The UMTContact app holds substantial potential commercial value, primarily stemming from its unique blend of efficiency, personalization, and contribution to a smart campus environment.

The app addresses a critical need within the university community by simplifying the process of managing contacts, promoting time-saving and organizational efficiency for students and staff alike. This practical utility positions UMTContact as a valuable tool, enhancing the daily lives of users. Moreover, the app's alignment with University Malaysia Terengganu's vision of a smart campus underscores its potential value as part of a broader digital transformation initiative, providing a solution tailored to the specific needs of the university community.

In terms of pricing the prototype, several considerations come into play. Exploring licensing agreements with other educational institutions interested in adopting a similar solution could provide a significant revenue stream. The pricing model may also consider offering discounted rates for students and staff, fostering greater adoption within the university community.

Furthermore, the app to specific needs or integrating it with existing university systems could justify higher pricing tiers, creating additional revenue opportunities. To determine optimal pricing, thorough market research, including user feedback and competitor analysis, is crucial. Striking a balance between affordability and perceived value will be essential in maximizing the commercial success of the UMTContact prototype. In conclusion, the app's potential commercial value lies in its practical utility, user-centric design, and alignment with the university's broader vision, while a well-thought-out pricing strategy will be key to unlocking its full revenue potential.

5. Lesson Learned

1. Implement the concept of navigation across the screens in the mobile apps based on the LAB7 (3/12/23)
2. Need to configure that existing of images in the pubspec.yaml configuration file – LAB3 (29/10/23)
3. AddContact({required this.contacts}); - The class has a constructor that takes a required parameter contact, which is a list of Contact objects. This list is used to store the contacts.
4. ExpansionTile - used to provide an expandable/collapsible view for each contact. The contact's name is displayed as the title. A delete button (IconButton) is provided at the trailing edge of the tile. Pressing the delete button triggers the deletion of the corresponding contact from the list.
5. 'clear()' is a method provided by the 'TextEditingController' class in Flutter. It is used to clear the text value in the associated 'TextField'. When 'clear()' is called on a 'TextEditingController', it sets the text value of the associated TextField to an empty string, effectively clearing any text that might have been entered.

6. Conclusion

UMTContact, an innovative initiative at University Malaysia Terengganu, presents a user-friendly solution designed to significantly improve the daily experiences of the university community. Rooted in design thinking principles, the app ensures an intuitive and personalized user experience through a streamlined two-page structure facilitating easy registration and contact viewing. Its primary strength lies in efficiently managing crucial contact information, contributing to heightened productivity for students and staff while aligning with the university's vision for a smart campus environment. Beyond addressing immediate needs, UMTContact holds potential for commercialization, with possibilities for licensing the technology to other institutions and offering customization options. However, ongoing refinement through market research, user feedback, and strategic collaborations is essential to maintain relevance and competitiveness in the university's digital ecosystem. In essence, UMTContact stands poised to be a cornerstone in realizing University Malaysia Terengganu's commitment to a connected and efficient campus community.

7. Reference

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8. GitHub Link

https://github.com/apikader/FrameworkMobileDevelopment.git