UNIVERSITI MALAYSIA TERENGGANU

BACHELOR OF COMPUTER SCIENCE (MOBILE COMPUTING)
WITH HONOURS

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CSM 3114: MOBILE DEVELOPMENT FRAMEWORK (K1)

SUBMISSION 1:

ASSIGNMENT 1: UMT PLANNER APPLICATION

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1. Executive summary

The UMT Planner App is an innovative task management tool designed to optimize organization and productivity for its users. With its user-friendly interface, the app simplifies the process of task management, making it accessible for users with varying levels of tech-savviness. Key features include intuitive task creation, where users can easily input details such as title, detail of the event, assign dates, due dates, and a dynamic task sorting system that categorizes tasks based on their completion status. This functionality provides users with a clear overview of ongoing, pending, and completed tasks, enhancing their ability to manage time and responsibilities effectively.

Central to the app's design is its focus on user experience and functionality. The integration of a calendar feature allows for efficient date management, ensuring tasks are completed in a timely manner. The visual representation of tasks, using distinct colors, aids in quickly identifying the status of each task, thereby streamlining task management. Additionally, the app's responsive design ensures a consistent and engaging user experience across various devices.

The UMT Planner App stands out as a comprehensive solution for personal and professional task management. Its array of features, from the task creation wizard to the detailed task view, caters to the diverse needs of its users. By facilitating effective time management and offering a structured approach to handling responsibilities, the app empowers users to enhance their productivity and take control of their daily activities. Whether for managing day-to-day tasks or planning long-term projects, the UMT Planner App is a reliable and efficient tool for anyone looking to improve their organizational skills.

2. Prototype design

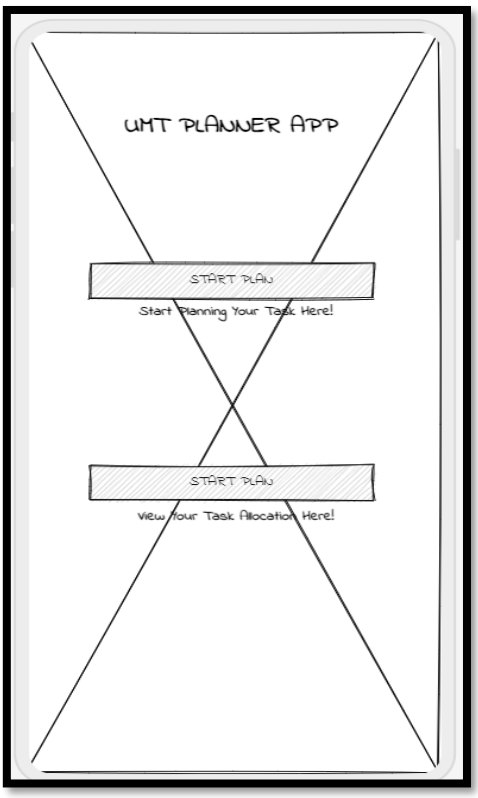


Figure 2.1: Home Page

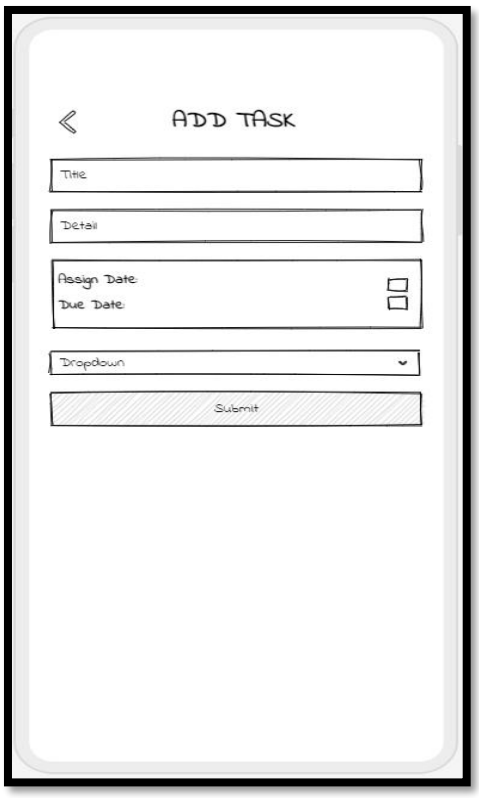
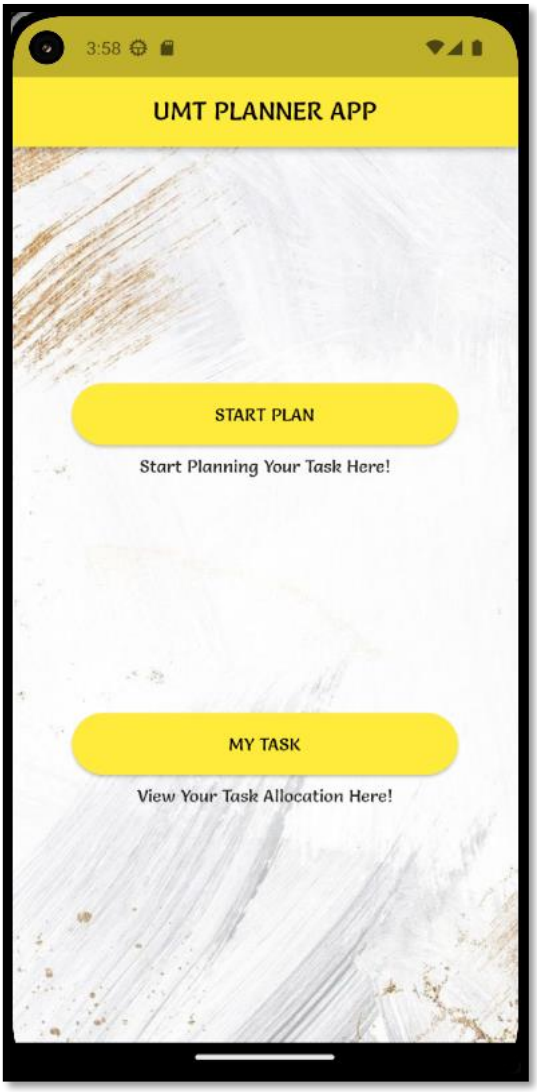


Figure 2.2: Task Page

Figure 2.3: Task List Page

Figure 2.4: Task Detail Page

3. The UI for the applicatio nwith explanation



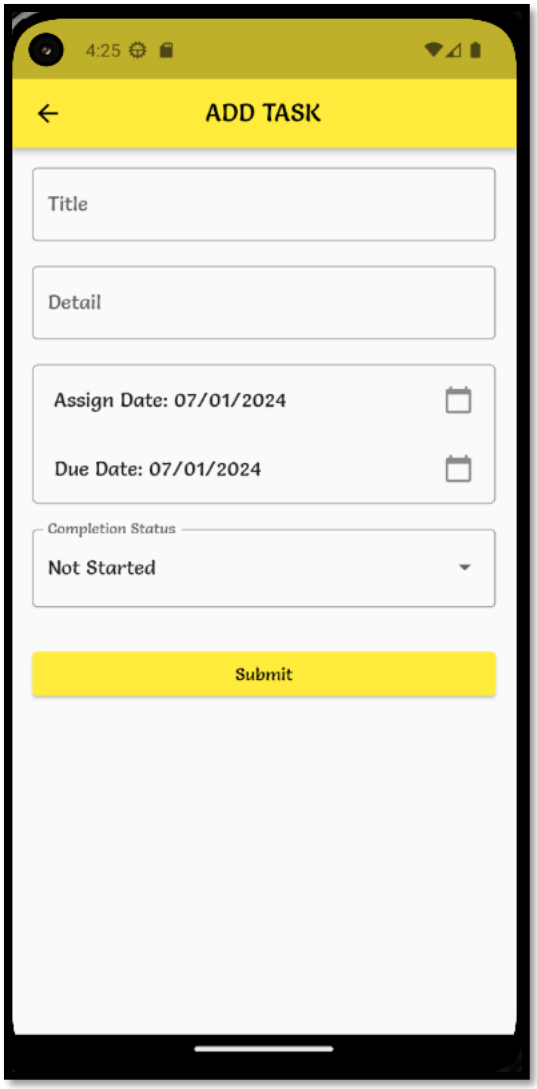


Figure 3.1 *Figure 3.2*

In Figure 3.1, the home page of the UMT planner app is shown, displaying a variety of widgets such as container, column, elevated button, and text widget. The decision to incorporate a background image on the home page was made to enhance user interest when interacting with the application. Additionally, two elevated buttons have been utilized for the main functions of the application, specifically for adding tasks and viewing tasks. These buttons have been styled in a manner that is designed to be visually appealing and attract user interest. In Figure 3.2, the "Add Task" page is referred to, highlighting the main function of this application: adding tasks. Relevant task information, including title, detail, assignee, due date, and completion status, is required to be filled in by the user. Upon submission of this information by the user, the stateful widget's role is to alter its appearance and behavior, responding to user interactions or other factors.

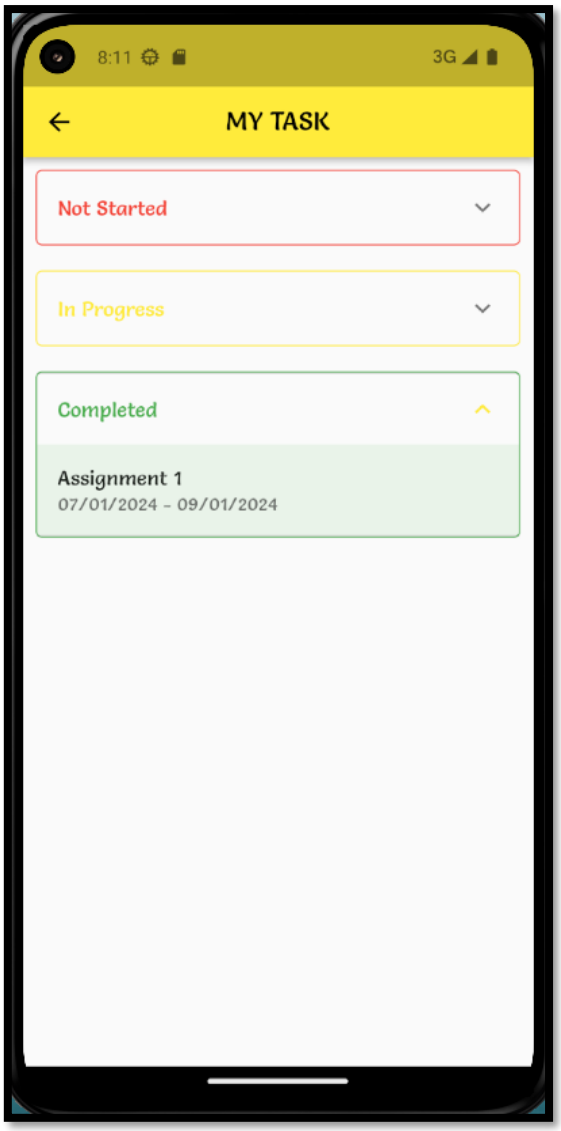


Figure 3.3

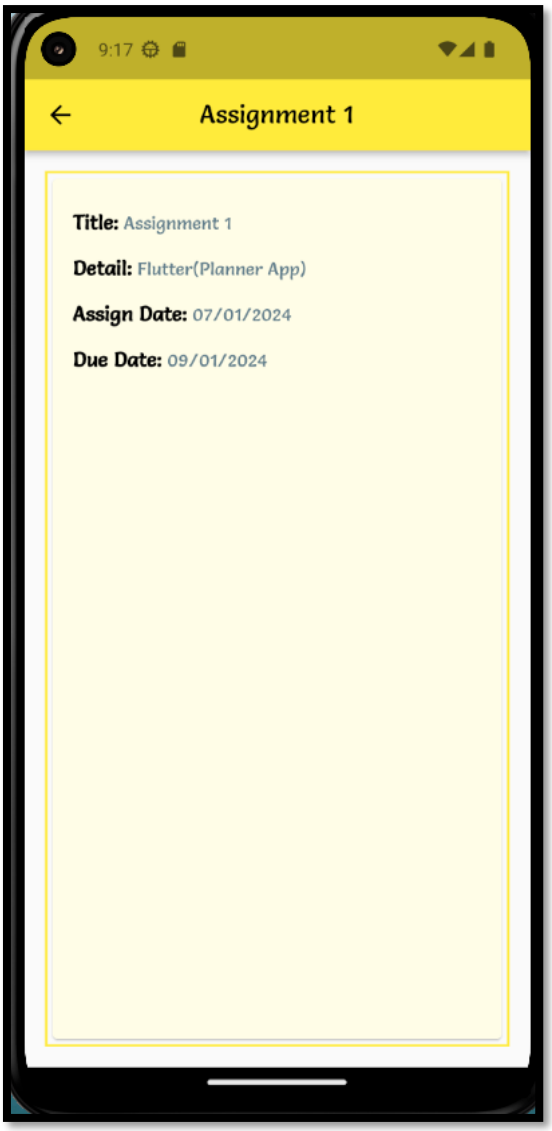


Figure 3.4

In Figure 3.3, the "Task List" page is presented, focusing on the second function of this application: viewing tasks in a list format. An innovative and engaging approach has been employed through the use of the ExpansionTile widget. This collapsible and expandable content widget displays all added tasks, dividing them into three sections according to the status of the created tasks: not started, pending, ongoing, and completed. The design of the widget serves the purpose of a user-friendly app, as it avoids overwhelming the user by displaying unwanted lists. In Figure 3.4, the "Task Detail List" page is depicted, with its focus on displaying event data that has been entered. From the list, all details previously filled in on the "Add Task" page can be viewed by the user pressing the task. The card widget is used to organize and present the data neatly to the user.

Potential commercial value

The UMT Planner App holds significant commercial value in today's fast-paced, productivity-focused society. In a market brimming with task management tools, the UMT Planner App differentiates itself through its user-friendly interface and comprehensive features, making it an attractive option for both individual consumers and corporate clients. Its intuitive design and robust functionality appeal to a wide range of users, from students managing their academic responsibilities to professionals tracking complex project timelines. The app's potential for customization and scalability makes it a viable product for businesses seeking to improve their employees' efficiency and organizational skills.

Moreover, the UMT Planner App's potential for data analytics and user engagement offers valuable insights for targeted marketing and continuous improvement. By analyzing user interaction patterns and feedback, developers can continuously refine the app to meet evolving consumer needs, thereby maintaining its relevance and competitiveness in the market. The app’s adaptability to incorporate additional features like collaboration tools, cloud synchronization, and cross-platform compatibility can attract a broader user base, enhancing its commercial appeal. With the growing demand for digital solutions that streamline task management and improve productivity, the UMT Planner App is well-positioned to capture a substantial share of the market, promising a lucrative return on investment for stakeholders.

Pricing of the prototype

The pricing strategy for the prototype of the UMT Planner App should reflect its stage in the product life cycle and its target market. Considering it's in the prototype phase, a freemium model could be highly effective. This approach would allow users to access basic features at no cost, which encourages widespread adoption and user feedback, essential for iterative development at this stage. Premium features, such as advanced task management options, personalized analytics, or integration capabilities with other software, could be locked behind a subscription fee. This tiered pricing strategy not only caters to a broader user base, ranging from casual users to power users, but also establishes a revenue stream early on. Additionally, offering a free trial period for premium features could entice users to explore the app's full capabilities, increasing the likelihood of conversion to paid plans.

As the UMT Planner App evolves beyond its prototype phase, dynamic pricing strategies could be implemented. This might involve adjusting the subscription fees based on user feedback, market demand, and competitive pricing. The app could also explore different pricing tiers to cater to different segments, such as students, professionals, or corporate clients, with each tier offering features tailored to their specific needs. Corporate packages could be introduced, offering bulk licenses at a discounted rate, thus targeting institutional clients. It's crucial to maintain a balance between affordability for users and sustainability for the app's continued development and maintenance. Regular market analysis and user feedback should guide the pricing adjustments, ensuring that the app remains competitively priced while delivering value to its users.

Lesson Learned

The development journey of the UMT Planner App provided insightful lessons in widget implementation and user interface design, emphasizing the importance of both technical proficiency and user-centricity. A key learning was the significance of selecting and customizing widgets to enhance user experience. The process highlighted that the choice of widgets greatly impacts the app's functionality and aesthetic appeal. We learned that even commonly used widgets, like text fields and buttons, require careful consideration in terms of their behavior, appearance, and integration with the overall app design.

Another crucial lesson was understanding user interaction patterns with different widgets. This understanding led to several iterations in design, where we adjusted the size, color, and placement of widgets to ensure intuitive navigation and ease of use. We discovered that small changes, like modifying a widget's response to a user action or tweaking its visual feedback, could significantly improve user engagement and satisfaction. This focus on widget-level details underscored the importance of meticulous design and the need for continuous testing and user feedback to refine the app's interface. Overall, these experiences reinforced the pivotal role of widgets in crafting an effective and user-friendly mobile application.

Conclusion

In conclusion, the UMT Planner App epitomizes the integration of practical functionality with a user-centric design, with a special emphasis on the effective use of widgets. The app's development journey highlights the vital role of widgets in creating an intuitive and engaging user experience. Through continuous refinement and user feedback, the app demonstrates how the thoughtful implementation and customization of widgets can significantly enhance usability and aesthetic appeal. This focus on widget-based design not only improves user interaction but also sets the app apart in the digital planner market. The lessons learned from this widget-centric approach have laid a solid foundation for ongoing improvements, ensuring that the UMT Planner App continues to evolve and remain a valuable tool for users navigating the complexities of task management in a digital world.

References

1. Understanding the Stateful Widget:

https://api.flutter.dev/flutter/widgets/StatefulWidget-class.html

2. Additional Widget: ExpansionTile:

https://api.flutter.dev/flutter/material/ExpansionTile-class.html

3. Displaying user data using RichText (Different style and color in one single paragraph):

https://api.flutter.dev/flutter/widgets/RichText-class.html

4. Installing google fonts in pubspec.yaml:

https://pub.dev/packages/google_fonts

5. Improving UI using different fonts:

https://fonts.google.com/?query=aestetic+font

6. Adding background image:

https://www.pinterest.com/search/pins/?rs=ac&len=2&q=aesthetic%20background&eq=aesthetic%20bac&etslf=9312

7. Understanding basic navigation:

https://docs.flutter.dev/cookbook/navigation/navigation-basics

8. Dropdown button:

https://api.flutter.dev/flutter/material/DropdownButton-class.html

9. Understanding common date picker function:

https://api.flutter.dev/flutter/material/showDatePicker.html

10. Card widget:

https://api.flutter.dev/flutter/material/Card-class.html

11. Adjusting card widget with the border:

https://api.flutter.dev/flutter/widgets/ConstrainedBox-class.html

Link GitHub:

https://github.com/najmuddin02/Assignment-1_S62728