



**UNIVERSITY MALAYSIA TERENGGANU
FACULTY OF OCEAN ENGINEERING TECHNOLOGY &
INFORMATICS**

**[CSM3114]
FRAMEWORK – BASED MOBILE APPLICATION DEVELOPMENT**

INDIVIDUAL PROJECT 1 – TASKS LIST

[DEVELOPING UNIVERSITY PERSONAL MOBILE APP]

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Github Link: <https://github.com/aLsiddiq05/Framework-Project-1.git>

1.0 SYSTEM OVERVIEW

TaskList - Student Task Management App

TaskList is a comprehensive student task management app designed to streamline the organization of assignments and enhance productivity for students. With a clean and user-friendly interface, the app facilitates the seamless addition and tracking of tasks, ensuring students stay on top of their academic responsibilities. The core features include task management, course-based filtering, detailed task views, and intuitive task completion toggles.

Within TaskList, each task is a canvas of information waiting to unfold. From due dates to descriptions, the app encapsulates the essence of academic responsibilities. A holistic perspective on tasks is achieved, presenting a comprehensive view that goes beyond mere deadlines. The app's commitment to providing a nuanced understanding of tasks ensures that students are equipped with the necessary details to navigate their academic journey effectively.

TaskList caters to the specific needs of students, offering a centralized platform for managing tasks efficiently. Its intuitive design and interactive features not only make it easy for students to add, view, and manage their assignments but also contribute to a more organized and stress-free academic journey. With future enhancements planned, such as user authentication, notification systems, and cloud synchronization, TaskList aims to evolve into an indispensable tool for students seeking effective task management in their academic pursuits.

2.0 PROTOTYPE DESIGN

The prototype design unravels the visual essence of TaskList. This section delves into the meticulous crafting of its interface, navigating the intersection of functionality and aesthetics. It unveils the intentional design choices aimed at ensuring a seamless user experience and an aesthetically pleasing journey through task management.



Figure 1. Prototype Initial View

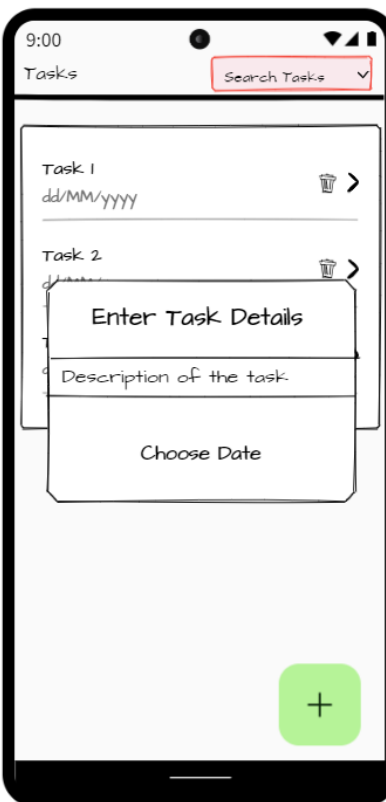


Figure 2. Prototype Add Task View

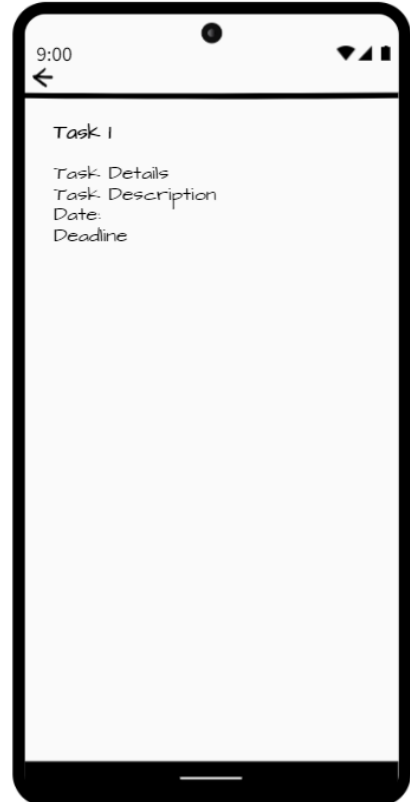


Figure 3. Prototype Task Detail View

Figure 1. Figure 2, and **Figure 3** show a prototype design of TaskList. Each view depicts a different functionality to ensure the convenience of student in tracking their tasks.

3.0 USER INTERFACE

Within the User Interface section, TaskList's visual identity comes to life. This section unravels the visual language that guides users through an efficient pleasing journey within the TaskList app.

The initial view of TaskList, depicted in **Figure 4**, serves as the gateway to a student's academic responsibilities. The task card encapsulates crucial details about each assignment, providing at-a-glance insights into the student's workload. Within the task card, essential information such as the course, due date, and a calculated due string is presented in a structured manner. This figure showcases the foundational element of TaskList's interface, emphasizing simplicity and functionality to foster an efficient task management experience for the user.

Figure 5 unveils the AddTaskDialog, representing the gateway to introducing new tasks into TaskList. This dialog ensures a seamless and user-friendly process for users to input detailed information about a new assignment. The dialog boasts a clean design, aligning with the overall aesthetic of the application. The Add Task Dialog comprises text fields for task name, description, and course, accompanied by buttons for selecting the due date and time. The inclusion of date and time selection buttons not only enhances functionality but also contributes to the app's goal of providing a holistic view of academic responsibilities.

In **Figure 6**, the TaskDetailPage offering users a comprehensive and detailed view of a specific task. This component serves as the informational hub for a task, providing a visual narrative of its various attributes. The user is presented with a detailed breakdown of the task's name, date, time, description, course, due date, and completion status. Through this detailed view, TaskList aims to empower users with a deeper understanding of their academic responsibilities, fostering transparency and accountability.

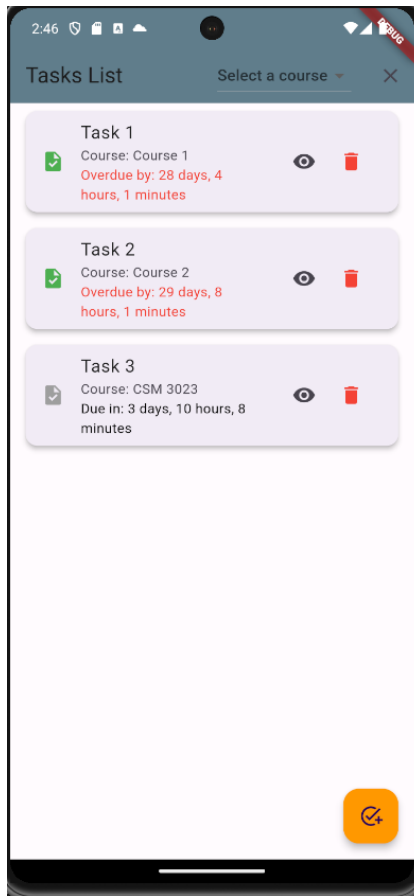


Figure 4. UI of List of Task

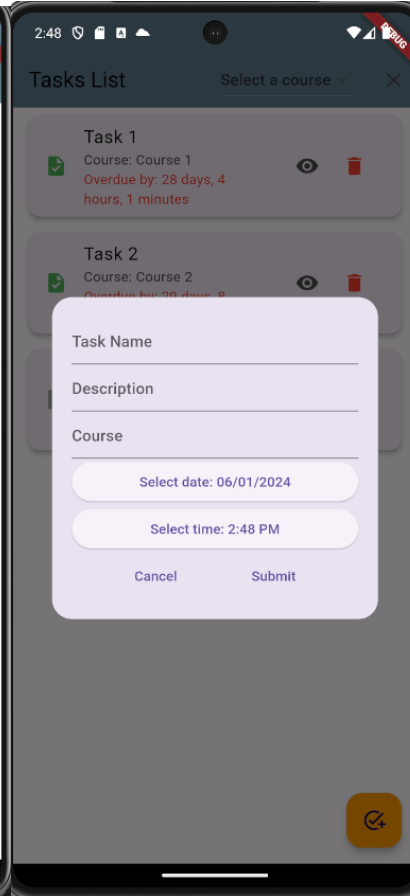


Figure 5. UI of Adding Task

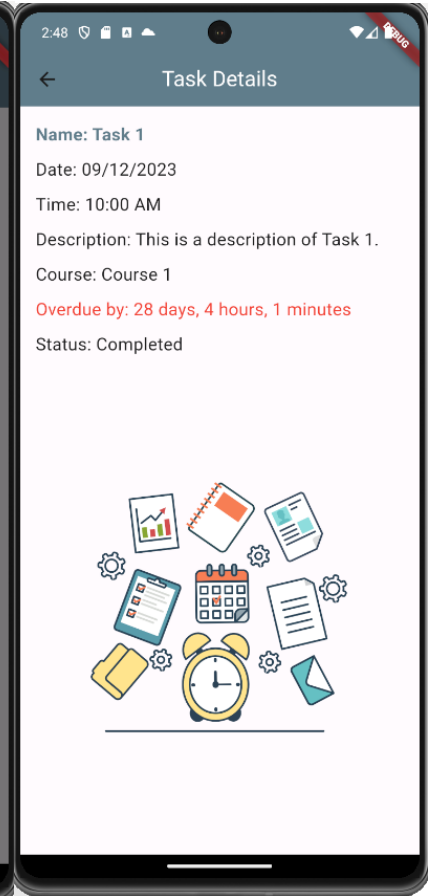


Figure 6. UI of Task Detail

4.0 POTENTIAL COMMERCIAL VALUE

TaskList holds significant commercial potential, primarily driven by its capacity to address a pervasive need among students – efficient task management. The app caters to a vast demographic of students at various educational levels, offering a solution that transcends the boundaries of traditional task management tools. Its intuitive interface and user-centric features position it as a valuable asset for students seeking a streamlined approach to academic responsibilities.

One key aspect contributing to its commercial viability is the universal relevance of task management in educational settings. As students juggle multiple courses, assignments, and deadlines, TaskList provides a centralized and user-friendly platform, resonating with the broader student community. The app's potential for integration with educational institutions, either through partnerships or licensing agreements, opens avenues for widespread adoption.

5.0 PROTOTYPE PRICING

Determining an appropriate pricing strategy for the TaskList prototype involves a thoughtful balance between affordability for students and sustainable revenue generation. Considering the app's potential commercial value and the target user base, a freemium model emerges as a strategic approach.

1. Freemium Model:

Free Basic Version:

The core features of TaskList, including task addition, basic filtering, and standard task management, would be accessible for free. This allows students to experience the fundamental benefits of the app without financial barriers.

Premium Features Subscription:

A subscription-based model can be introduced for premium features such as notification systems and advanced analytics. This tiered approach enables users to choose a plan based on their needs, offering flexibility for those seeking additional functionalities.

2. Educational Institution Partnerships:

Collaborating with educational institutions to offer TaskList as part of their student support services could be explored. Tailored packages or licensing agreements for institutions could provide a steady revenue stream while ensuring widespread adoption among students.

A strategic combination of a freemium model and collaboration with educational institutions can position TaskList for a successful market entry, ensuring a balance between accessibility for students and sustainable growth.

6.0 LESSON LEARNED

Throughout the development of the TaskList project, several invaluable lessons have been learned:

Technical Proficiency:

- Enhanced skills in Flutter in designing, constructing a variety of widgets.
- Ensured an optimized widget tree structure for improved app performance.
- Applied Flutter's state management mechanisms, such as `setState` to ensure dynamic and reactive UI updates.

User-Centered Design:

- Iterative feedback loops and user testing refined the user interface.
- Prioritizing user needs led to an intuitive and engaging application.

Thorough Planning and Documentation:

- Clearly defined user stories and well-structured development roadmaps guided implementation.

7.0 CONCLUSION

The development of TaskList has been a journey marked by innovation and continuous learning. Through the lens of Flutter app development, the project reinforced the importance of technical proficiency, with a focus on mastering the Flutter framework for creating a user-friendly interface that aligns with the needs of students managing tasks. Each line of code contributed to refining the app's features, emphasizing responsiveness and user-centric design.

The project highlighted the importance of strategic planning, ensuring clear goals, organized user stories, and a well-structured development roadmap. The experience has not only enhanced technical skills but also instilled a holistic approach to user-centric design, and the continuous pursuit of excellence in the dynamic field of mobile application development. TaskList stands as a testament to the power of innovation and the pursuit of creating solutions that seamlessly integrate into the lives of end-users.

8.0 REFERENCES

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