UNIVERSITY OF CALOOCAN CITY
COLLEGE OF ENGINEERING
Phase 8A Package 11, Block 199, German Village, barangay 176 Bagong Silang, Caloocan City, 1428

Progress Report No. 3	
Course Code: CPE201L	**Program: BSCPE**
Course Title: Data Structure and Algorithm	**Date Performed: September 20, 2025**
Section: 2A	**Date Submitted: September 20, 2025**
Name: **Hendrix Nathan Sumel** **Mark Danielle Laput**	**Instructor:** Engr. Maria Rizette H. Sayo

1.Objectives

1 To design and implement a **GUI-based Task Manager** that helps users track tasks and receive timely reminders.

2 To integrate **alarm functionalities** using sound and pop-up notifications to alert users about upcoming tasks.

2. Discussion

We recently transitioned to working with this new Python-based task management program, which means many of the concepts and tools involved are still new to us. Because of this, we are still in the process of understanding how everything works, especially the more advanced features like background threading, sound integration, and database handling.

So far, we've learned that this project uses **Python with a graphical interface** built using tkinter, and it stores task data in a local **SQLite database**. Although we're still catching up, we're starting to understand how different components like **task creation**, **reminders**, and **custom alarms** work together.

This activity is helping us gradually build our skills in:

- Creating and managing GUI applications.
- Using databases to save and retrieve data.
- Adding basic scheduling or alarm features.

We may be a bit behind, but working through this hands-on project is helping us learn at our own pace.

3. Materials and Equipment

Software:

- **Python 3.x** – Programming language used for the application.
- **Libraries used:**
  - tkinter – GUI framework.
  - sqlite3 – For local database storage.
  - tkcalendar – For date selection widgets.
  - playsound – For playing alarm audio.
  - threading, datetime, time – For scheduling and concurrency.

Hardware:

- Personal computer/laptop capable of running Python applications.

4. Procedure

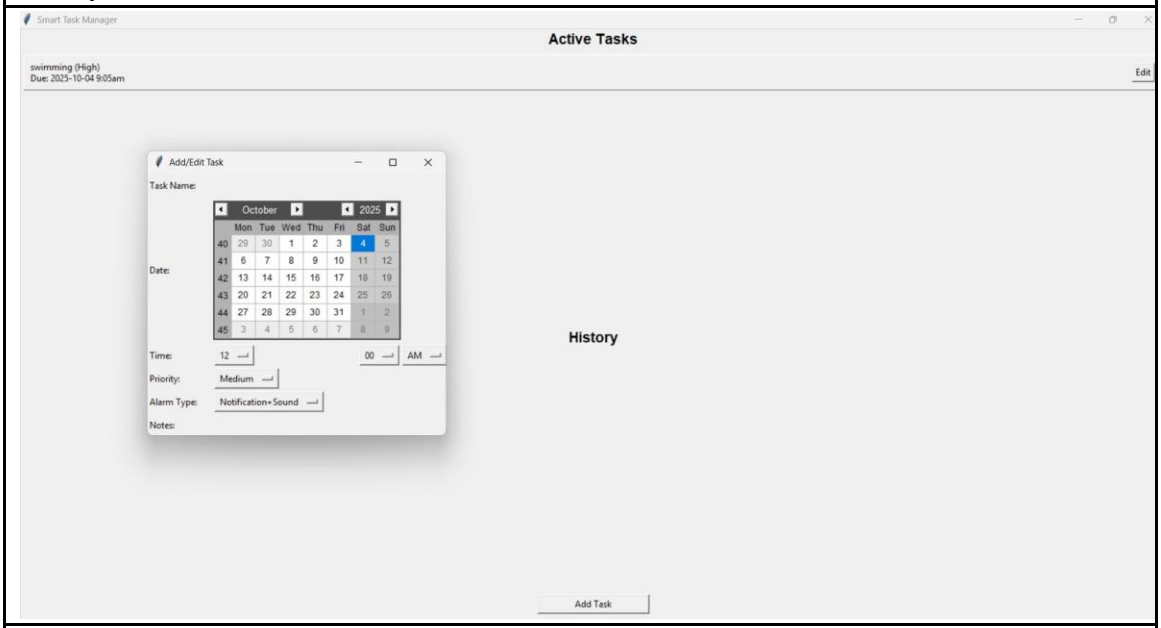
Procedure

1. **Setup Environment:**
   - Installed required Python libraries.
   - Created sounds/ directory and placeholder audio file.
2. **Database Initialization:**

- Created a SQLite database with a tasks table to store task details.

3. **GUI Development:**
   - Designed layout using tkinter with frames for active and history task lists.
4. **Task Functionality:**
   - Implemented add/edit popup window with fields for time, priority, notes, and custom sounds.
   - Implemented save logic for adding/updating tasks in the database.
5. **Alarm Scheduling:**
   - A background thread continuously checks due tasks and triggers reminders via popups and sounds.
6. **Additional Features:**
   - Snooze function to delay reminders.
   - "Do Again" option to re-add completed tasks.
7. **Tested the Application:**
   - Ran the application, added tasks, waited for alarms to trigger, and verified all functionalities.

5. Output



6. Conclusion

Although we're still catching up due to the recent change in our program, this activity has been a valuable starting point in understanding Python-based GUI applications. Working on this task manager has exposed us to several important programming concepts like interface design with tkinter, database handling using SQLite, and background processes through threading — even if we don't fully grasp all of them yet.

This experience made it clear that while the learning curve may feel steep, hands-on practice like this helps us learn step by step. As we continue working on this project, we're gaining confidence and building the foundation we need to eventually keep pace with the rest of the class.

We may be behind now, but we're moving forward.

UNIVERSITY OF CALOOCAN CITY
COLLEGE OF ENGINEERING
Phase 8A Package 11, Block 199, German Village, barangay 176 Bagong Silang, Caloocan City, 1428

Lab Activity Rubric

Criteria	Ratings						Pts
SO 7 PI 1 **Student Outcome 7.1** Acquire and apply new knowledge from outside sources. threshold: 4.8 pts	6 pts Excellent | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently and applies knowledge learned into practice	5 pts Good | Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently	4 pts Satisfactory | Look beyond classroom requirements, showing interest in pursuing knowledge independently	3 pts Unsatisfactory | Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently	2 pts Poor | Relies on classroom instruction only	1 pts Very Poor | No initiative or interest in acquiring new knowledge	6 pts
SO 7 PI 2 **Student Outcome 7.2** Learn independently threshold: 4.8 pts	6 pts Excellent | Completes an assigned task independently and practices continuous improvement	5 pts Good | Completes an assigned task without supervision or guidance	4 pts Satisfactory | Requires minimal guidance to complete an assigned task	3 pts Unsatisfactory | Requires detailed or step-by-step instructions to complete a task	2 pts Poor | Shows little interest to complete a task independently	1 pts Very Poor | No interest to complete a task independently	6 pts
SO 7 PI 3 **Student Outcome 7.3** Critical thinking in the broadest context of technological change threshold: 4.8 pts	6 pts Excellent | Synthesizes and integrates information from a variety of sources; formulates a clear and precise perspective; draws appropriate conclusions	5 pts Good | Evaluate information from a variety of sources; formulates a clear and precise perspective.	4 pts Satisfactory | Analyze information from a variety of sources; formulates a clear and precise perspective.	3 pts Unsatisfactory | Apply the gathered information to formulate the problem	2 pts Poor | Gather and summarized the information from a variety of sources but failed to formulate the problem	1 pts Very Poor | Gather information from a variety of sources	6 pts
SO 7 PI 4 **Student Outcome 7.4** Creativity and adaptability to new and emerging technologies threshold: 4.8 pts	6 pts Excellent | Ideas are combined in original and creative ways in line with the new and emerging technology trends to solve a problem or address an issue.	5 pts Good | Ideas are creative and adapt the new knowledge to solve a problem or address an issue	4 pts Satisfactory | Ideas are creative in solving a problem, or address an issue	3 pts Unsatisfactory | Shows some creative ways to solve the problem	2 pts Poor | Shows initiative and attempt to develop creative ideas to solve the problem	1 pts Very Poor | Ideas are copied or restated from the sources consulted	6 pts
							Total Points: 24