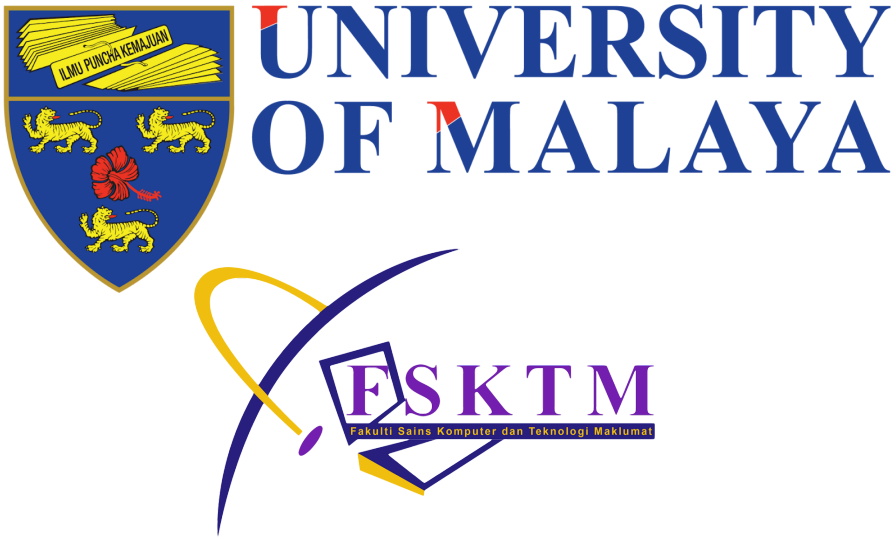

WIX 1002 FUNDAMENTAL OF PROGRAMMING

SEMESTER 1, 2025/2026

TOPIC 3: SMART JOURNAL

SMART JOURNALING APPLICATION: MANAGERIAL REPORT

Lecturer's Name: DR. NURUL BINTI JAPAR

Occurence: 9

Group Name: Ctrl+C Ctrl+V

Group Members:

No.	Name	Matric Number
1	LIM HONG ZHANG	25006100
2	TAN CHEE KEAT	25006123
3	LEE MING DAO	25006825
4	JITESH A/L MOGANA RAJA	25006745
5	TEH XU ZHE	25006355

MANAGERIAL REPORT: SMART JOURNALING PROJECT

Team Name: Ctrl+C Ctrl+V

Submission Date: 12 January 2026

Project: WIX1002 - Smart Journaling Application

1.0 Introduction

This report outlines the development and management process for the "Smart Journaling" application. The objective of this project was to develop a Java-based journaling platform that tackles the challenges of emotional awareness by leveraging technology. The system integrates core Computer Science concepts, including Object-Oriented Programming (OOP), File I/O for data storage , and API integration for weather tracking and sentiment analysis.

2.0 Team Formation and Composition

The team, **"Ctrl+C Ctrl+V"**, consists of five members:

- **Jitesh A/L Mogana Raja**
- **Tan Chee Keat**
- **Lim Hong Zhang**
- **Lee Ming Dao**
- **Teh Xu Zhe**

Formation Strategy:

The team was formed through self-selection. Members chose to work together based on established rapport, shared work ethics, and a mutual understanding of individual technical strengths. This pre-existing chemistry allowed for rapid onboarding and immediate focus on task distribution without the friction often associated with randomly assigned groups.

3.0 Roles and Responsibilities

To ensure all "Basic Features" and project requirements were met, tasks were delegated based on individual technical proficiencies. The breakdown of responsibilities is as follows:

Member Name	Role	Specific Responsibilities & Technical Contributions
Jitesh A/L Mogana Raja	**Team Lead / Full Stack Developer**	• **Project Management:** Oversaw the development lifecycle and lead debugging sessions. • **API Integration:** Developed the *Weather Value Extraction* module, utilizing GET requests to retrieve location-based weather data from the Malaysian open data portal. • **Integration:** Merged front-end CLI components with back-end logic.
Tan Chee Keat	**Full Stack Developer**	• **Authentication System:** Implemented the *User Account & Login/Registration* features. • **Data Management:** Designed the User class (Email, Password, Display Name) and handled Data Storage using local storage (File I/O) and cloud storage (Mongodb) to ensure user data persists after termination.
Lim Hong Zhang	**Full Stack Developer**	• **AI Integration:** Responsible for the *Mood Classification Value Extraction*. • **API Implementation:** Implemented POST requests to the Hugging Face API (DistilBERT model) to analyze journal entries and return sentiment scores (Positive/Negative).

Lee Ming Dao	**Back End Developer / Documentation**	• **Logic Implementation:** Coded the *Welcome Page*, implementing time-based logic (Morning/Afternoon/Evening) for user greetings. • **Data Aggregation:** Developed the *Weekly Summary Page* to display mood and weather fluctuations over 7 days. • **Reporting:** Compiled the Managerial Report and project documentation.
Teh Xu Zhe	**Back End / UI Designer**	• **User Interface:** Designed the Command-Line Interface (CLI) structure for navigation. • **Journal Management:** Coded the core *Journal Page* logic, allowing users to Create, Edit, and View entries based on the current date.

4.0 Project Timeline

The project followed a tight schedule culminating in the submission window of **January 8, 2026 – January 12, 2026**.

- **Phase 1: Planning & Design (Weeks 3-5)**
    - Team formation and analysis of the "Smart Journaling" requirements.
    - Delegation of modules (Weather, Mood, Login).
    - Design of the File I/O structure for UserData.txt.
- **Phase 2: Core Development (Week 6-10)**
    - Development of basic features: Login, Registration, and Journal Entry creation.
    - First draft of the code completed.
- **Phase 3: API Integration & Testing (Week 11-12)**
    - Integration of External APIs (Weather and Hugging Face Sentiment Analysis).
    - System testing and debugging led by the Team Lead.
- **Phase 4: Final Submission (Week 13-Jan 12, 2026)**
    - Final code compilation and review.
    - Submission via Spectrum before the deadline.

5.0 Challenges and Resolutions

During the execution of this assignment, the team encountered specific hurdles regarding coordination.

Problem: Scheduling Conflicts & Remote Collaboration

Due to the academic calendar and personal commitments, every team member had a "packed" schedule. Finding a common time slot for physical meetings was nearly impossible, threatening to delay the integration of the separate modules (e.g., combining the Weather API with the Journal Entry).

Solution: Asynchronous Work & Virtual Meetings

To resolve this, the team shifted to a fully remote workflow:

1. **Virtual Meetings:** We replaced physical meet-ups with online meetings (using platforms like Discord/Teams/Zoom) to conduct code reviews and weekly sync-ups.
2. **Modular Development:** As suggested in the assignment tips, we treated the project as modular parts (Login, Weather, Mood). This allowed members to code their specific sections independently during their own free time, reducing the need for constant synchronous collaboration.

6.0 Conclusion

The "Ctrl+C Ctrl+V" team successfully delivered the Smart Journaling application by the deadline of January 12, 2026. By effectively dividing the workload into "Basic Features" (Login, Journaling) and complex "API Features" (Weather, Mood), and by adapting to a remote work environment, we overcame scheduling conflicts to produce a functional application that meets the goal of improving emotional awareness through technology.