LEARNING JOURNAL

Name: Mark Aaron Mayor
Date Started: September 23, 2025
Date Finished: October 1, 2025
Number of Hours: 39.85

Department	Activity/Assigned Task
App Developer (IT Department)	**EQUISERVE SPEECH-TO-TEXT TOOL (EQUINOTES)** - September 23, 2025 The initial phase of the EquiNotes project focused on achieving robust transcription for both agent and client conversations, using VOSK for proof-of-concept audio file transcription. However, VOSK's lack of speed compromised the goal of real-time captioning, leading to a crucial pivot in the technology stack. The project team decided to adopt OpenAI's Whisper model as the primary transcriptor due to its superior performance and accuracy.
App Developer (IT Department)	- September 24, 2025 This transition was strategically mitigated by exploring the WebkitSpeechRecognition() API as a complementary alternative, which successfully delivered near real-time transcription with minimal delay, crucially supporting both Filipino and English languages.
App Developer (IT Department)	- September 29, 2025 Upon officially integrating the OpenAI-Whisper model—configured to run locally with an interchangeable language model (defaulting to the "small" model for optimal balance between accuracy and performance)—a working Minimal Viable Product (MVP) was achieved. This MVP uses the small Whisper model to capture real-time audio with an initial minor buffer

	and achieves approximately 60-70% speech recognition accuracy.
App Developer (IT Department)	- September 30, 2025 The system's architecture relies on FastAPI to manage both the front-end and back-end routing, successfully integrating the core logic with a PostgreSQL database. The front-end is now capable of capturing and sending real-time transcribed messages directly to the database.
App Developer (IT Department)	- October 01, 2025 Outlined the schedule and roadmap for fixes, improvements and new features in the project timeline. Began laying the groundwork for the database by creating initial REST API endpoints and JSON structures. Requested improvements to allow agents to copy transcribed words directly via click or highlight and proposed adding a quick-access panel in the bottom-right corner for navigation and tracking. Reworked HTML templates to include a base.html file, ensuring easier updates to the navigation bar and headers. Corrected all redirection issues and standardized button icons. Enabled users to download transcribed text from their profiles.

_____MARK AARON A. MAYOR____
Name & Signature of Student Trainee

_____AREL A. MAGAYON_____
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