DATE:14-04-2025

### **Developer 2 – AI Agent Logic (GPT / LangChain)**

#### **Task Breakdown and Progress**

**1. Design and Implement the Conversation Logic for Lead Qualification and Booking**

* **Completed:**
  + Implemented core logic for handling user messages.
  + Built conversation flow to ask for service details and appointment date/time.
  + Used regular expressions for basic data extraction (service, name, etc.).
* **Left to Do:**
  + Fine-tune conversation flow for different lead qualification scenarios.
  + Ensure better management of edge cases (e.g., ambiguous inputs or incomplete messages).
  + Improve fallback and clarification mechanisms for better user experience.

**Progress:** **70%** (Basic conversation flow implemented, needs refinement for all cases)

**2. Use GPT or LangChain to Detect Intent and Generate Natural Responses**

* **Completed:**
  + Integrated GPT or LangChain to detect the intent (e.g., booking, FAQ, etc.) based on user input.
  + Added response generation based on recognized intents.
* **Left to Do:**
  + Fine-tune intent detection to handle edge cases or misinterpretations.
  + Further test with multiple types of user inputs (e.g., different ways of asking for the same service).

**Progress:** **80%** (Intent detection in place but needs testing and edge case handling)

**3. Extract Relevant Data (Name, Service, Date, Time) from Messages**

* **Completed:**
  + Implemented the extract\_booking\_info() function to extract name, service, date, and time from user messages using regex patterns.
  + Supported basic expressions like "book a massage for Sarah" and "schedule a facial for John."
* **Left to Do:**
  + Handle more complex natural language expressions for date/time (e.g., "next Monday" or "tomorrow").
  + Ensure accurate extraction of ambiguous date and time inputs (e.g., specific formats or fuzzy dates).

**Progress:** **85%** (Basic data extraction works, but needs enhancement for complex cases)

**4. Collaborate with Developer 1 to Return Data into the Automation Flow**

* **Completed:**
  + Defined the structure for data that needs to be returned (name, service, date, time).
  + Collaborated with Dev 1 to pass data back into the automation flow (bookings, lead qualification, etc.).
* **Left to Do:**
  + Complete integration with the overall system (ensure data flows seamlessly into the next steps of automation).
  + Test the entire automation process, making sure no data is lost or misinterpreted.

**Progress:** **60%** (Data structure and flow established, full integration pending)

### **Overall Progress**

Based on your current progress across all tasks, the estimated percentage completion is:

* **Total Work Completed:** **73%**
* **Remaining Work:** **27%**

#### **Work Left to Do (Summary):**

* **Refining conversation logic** for edge cases.( did attempted fallback messages but it didn't worked as planned will need to focus on behavior of our model on incomplete text)
* **Fine-tuning GPT/LangChain model** for better intent detection and more natural responses.(As our goal is to make it as humanly as possible we need to add friendly phrases and make it more interesting)
* **Enhancing date/time extraction logic** to handle natural expressions like "tomorrow," "next Monday," etc.(Have worked on it and its working really well, just need to test it with different user typo text to check how it reacts )
* **Full integration with Dev 1’s automation flow. ( haven't reached out to dev 1 yet as logic to the workflow isnt there yet )**

**DEV 2 - ADITYA AND MEHAR**