Project Development and Completion Tracker

Porject ID: 3

Project Start Date: 08-07-2024 Project End Date: currently working

Porject Descreption: Using RAG with lightweight LLMs to deliver simplified, accessible medical guidance on common ailments.

	Name of Team member	Designation				Name of Students			Role
https://docs.google.com/spreadsheets/d/19XKhumkEp1J68ssw6cH6Kxb-tF8ItAa_NVPQLL3jF3o/edit?gid=0#gid=0	Sonam Bhul,Tanay Kumar	**Model ideation**	**Project Development Student Team Memebers**			Sonam Bhul			**FrontEnd & BackEnd**
	Ayushi Tiwari	**LLM integration**				Ayushi Tiwari			**FrontEnd & BackEnd**
	Tanay Kumar	**RAG integration**				Tanay Kumar			**FrontEnd & BackEnd**

Epic:	**Implementing Retrieval-Augmented Generation (RAG) with lightweight LLMs like LLaMA 2 or Mistral to deliver simplified, accessible medical guidance on common ailments, making healthcare information more user-friendly and easy to understand.**
Story 1:	As a user, I want clear guidance on symptoms and medications to make informed health decisions easily.
Story 2:	As a healthcare provider, I need simplified medical information to give clear advice to patients.
Story 3:	As a developer, I want to integrate RAG with lightweight LLMs to retrieve and simplify medical content efficiently.
Task1:	Clean and preprocess the database to ensure it contains accurate patient data (e.g., symptoms, historical data, prescriptions) for real-time analysis and early diagnosis.
Task2:	Extract key features from patient data using embedding for predictive modeling.
Task3:	Integration with LLM model like LLama 2 or Mistral
Task4:	Witth the help of scoring method we can rank the accuracy of the content
Task5:	Sorting the model accoding to ranking
Task6:	Create a Fundamental model like chatbot to show the result from the ranked contents
Acceptance Criteria:	
1	Ensure input data are correctly formatted.
2	Utilize LLM model to ease up processing unit.
3	Employ machine learning for pattern detection.
4	Design for handling high amount of data volume in one file.
5	Maintain high accuracy for appropriate result from the file to the chatbots
6	Regularly enhance detection capabilities.

Sr. No.	Sprint No.	Task Name	Sub Tasks	Start Date	End Date	Task Status	Assigned To	Status
1	Sprint 0	Project need	Ideation	18-07-2024	31-07-24	Complete	Tanay	100%
		Project ignition	preparing the required dependenies	01-08-24	05-08-2024	Complete	Sonam	100%
		Project occurence	working on the Project	06-08-24	31-08-24	Complete	Ayushi	100%
2	Sprint 1	Data Collection & Preprocessing	Collect medical data from various sources	02-09-24	10-09-24	Complete	Ayushi, Sonam, Tanay	100%
		Dataset preprocessing	Cleaning, tokenization, and structuring of data	11-09-24	19-09-24	Complete	Sonam	100%
		Web App Development	Streamlit Integration	20-09-24	25-09-24	Complete	Ayushi	100%
3	Sprint 2	Implement Retrieval-Augmented Generation (RAG)	Integrate retrieval mechanism with LLM using LangChain	26-09-24	11-10-24	Complete	Tanay	100%
		Ensure lightweight integration with LLaMA 2 or Mistral	Integration of LLM models	12-10-24	25-10-24	Complete	Tanay	100%
		Test RAG-based system with diverse inputs	System checks	26-10-24	09-11-24	Complete	Sonam	100%