

**Project Title: AGENTIC AI: Advancing Localized Voice Assistance with LLM-Driven Intelligence****Abstract:**

AGENTIC AI leverages **CrewAI**, **LangChain**, and **Ollama** to develop a localized voice-based assistant capable of real-time conversation, browsing the internet, segregating news, and writing blogs. Integrates **speech-to-text** and **text-to-speech modules**, AI-powered natural language processing to ensure context-aware interactions.

Processes user inputs, including documents (i.e., PDF, CSV) for personalized responses, ensuring versatile use cases such as document-based querying and content drafting.

The assistant enhances productivity and personalization, making complex tasks like information retrieval and blog creation, seamless and efficient

Keywords:

Problem Statement: Traditional assistants often lack localized capabilities and advanced multi-modal functionalities like speech-to-speech response, content creation, personalized browsing and often users suffer with data Espionage. To address these challenges, this project aims to develop a localized assistant capable of aforementioned tasks.

Objectives:

- Develop a localized voice-based assistant capable of real-time speech-to-speech responses.
- Enable document ingestion (PDFs) to extract and process relevant content for question answering.
- Implement internet browsing capabilities for fetching and segregating latest news.
- Design a system to assist in blog writing, utilizing AI-based content generation.
- Provide an intuitive and interactive interface for a seamless user experience.

Outcome:

- A fully functional voice-based assistant capable of handling complex multi-modal tasks.
- Enhanced accessibility through real-time speech interaction and localized processing.
- Efficient integration of document-based querying for personalized responses.
- Streamlined workflows for news categorization and blog writing
- Increased user productivity through AI-powered task automation.

Language / Software Tools used:

Python 3.11 , Ollama , Lang Chain, Crew AI, VS Code , Chromadb , Flask or StreamLit

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