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Module 1: Foundations of AI Agents

- Core concepts and fundamentals of AI agents.
- Types of AI agents: rule-based, learning, and collaborative agents.
- Building blocks of AI agents: tasks, tools, and workflows.
- Prominent large language models (LLMs): GPT, LLama, and Groq-powered systems.
- Retrieval-Augmented Generation (RAG) systems for context-aware agents.
- Use cases in industries like healthcare, finance, and aviation.

Module 2: Advanced AI Multi-Agent Systems

LangGraph & LangChain:

- Automate hospital workflows and integrate vision models.
- Build search and chatbot agents.

CrewAI:

- Design task-oriented AI systems for industries like travel, finance, and healthcare.
- Develop multi-crew collaboration for diverse tasks.

OpenAI Swarm:

- Create agents for aviation, sales, and customer service.
- Build solutions like flight information systems and passport control agents.

Module 3: Key Technologies and Tools

- Vision and multi-modal models.
- Real-time audio integration using ElevenLabs.
- Synthetic data generation for training AI systems.

Module 4: Industry-Specific Projects

- Healthcare: Develop physician assistants, radiologist agents, and front-desk agents.
- Finance: Create financial advisor agents for smarter investments.
- Aviation & Tourism: Automate flight management and enhance customer interactions.