Our "GenAI Module" offers comprehensive insights into the rapidly evolving field of generative AI. You will learn how computers understand and generate texts and images, explore LLM APIs, prompt engineering, and develop conversational agents and chatbots using speech-to-text and text-to-speech technologies. The module covers open-source models and libraries like Langchain, advanced topics such as Retrieval-Augmented Generation (RAG), sophisticated data handling techniques, vector stores for optimizing retrieval processes, and using LLM agents for complex tasks.

This knowledge will equip you to drive innovation and make impactful contributions to the AI landscape, skills highly sought after by leading companies.

The GenAI module offers a comprehensive journey through the fascinating world of generative artificial intelligence, delving into key areas that shape this cutting-edge field.

1. **Gateway to Generative AI: Exploring New Frontiers** - Embark on an introductory exploration of generative AI, understanding its vast potential and transformative impact across various domains.
2. **Decoding Language: The Mechanics of NLP and LLMs** - Gain insights into the inner workings of natural language processing (NLP) and large language models (LLMs), deciphering how they comprehend and generate human-like text.
3. **Open Source AI Powerhouse: Exploring Huggingface** - Discover the power and versatility of Huggingface, a leading open-source platform, and how it revolutionizes the development and deployment of AI models.
4. **From Pixels to Possibilities: Computer Vision for Gen AI** - Gain insights into the foundations of Computer Vision for generative AI, and learn how a computer understands images to build practical applications.
5. **Imaginative AI: Understanding Visual Creativity** - Understand the nuances of AI-driven visual creativity, examining how AI can produce imaginative and aesthetically compelling visuals.
6. **Harnessing the LLM APIs with OpenAI Ecosystem** - Learn to effectively utilize OpenAI's ecosystem of APIs, harnessing the power of LLMs to develop sophisticated AI applications.
7. **AI Tools: Building, Moderating, and Leveraging AI** - Master the use of AI tools to build, moderate, and leverage AI systems, enhancing their functionality and ensuring ethical deployment.

8. **Intro to Langchain: Enhancing LLMs with Contextual Memory** - Explore Langchain and its capabilities in augmenting LLMs with contextual memory, improving their performance in complex tasks.
9. **Dynamic AI with RAG: Building Context-Aware Systems** - Discover Retrieval-Augmented Generation (RAG) and its application in creating dynamic, context-aware AI systems that deliver more relevant and accurate outputs.
10. **Advanced RAG Techniques and Vector Stores** - Delve deeper into advanced RAG techniques and the use of vector stores, optimizing AI systems for better data retrieval and integration.
11. **The Final Level of Gen AI: Agents** - Reach the pinnacle of generative AI with agents, exploring their evolution and capabilities in connecting to the web, integrating tools, and mastering complex tasks.
12. **Agents Evolution: Connect to the Web, Integrate Tools, and Master Agent Development** - Study the evolution of AI agents, learning how to develop sophisticated agents that interact with the web and integrate various tools seamlessly.
13. **Precision Tuning: Enhancing AI with Fine-Tuning** - Focus on precision tuning, enhancing AI models through fine-tuning techniques that improve their accuracy and performance.
14. **Advanced Fine-Tuning Techniques** - Advance your skills with cutting-edge fine-tuning techniques, pushing the boundaries of what AI models can achieve.

You will also get an opportunity to complete 3 projects during this module. This module equips learners with the knowledge and skills to navigate and innovate in the rapidly evolving field of generative AI.