Generative AI Foundation Training Plan

Day	Topic	Sub-Topic	Learning Objective	Concepts	Hands-On	Duration in hours
Day 1	Introduction to Generative AI	Overview of AI & ML	Understand AI, ML, and Generative AI fundamentals	AI vs ML vs Generative AI, Types of AI models	No	0.5
	Generative AI Evolution	Historical advancements	Learn how Generative AI has evolved over time	Deep Learning, Transformers, GANs, VAEs	No	0.5
	Foundation Models	Transformers and Large Language Models	Understand transformer architectures	BERT, GPT, T5, Gemini	Yes (Hands-on with OpenAI API)	1.0
	Text Generation	LLMs in Text Generation	Explore how Generative AI creates human-like text	Tokenization, Attention Mechanism	Yes (Text generation using OpenAI API)	1.0
	Image Generation	Diffusion Models and GANs	Learn how Generative AI creates images	Stable Diffusion, DALL·E, Midjourney	Yes (Generating images using Stable Diffusion)	1.0
Day 2	Generative AI Applications	Use cases in industries	Understand real-world applications of Generative AI	Healthcare, Finance, Entertainment, Robotics	No	0.5
	Fine-Tuning and Customization	Prompt Engineering & Fine-tuning	Learn how to customize AI models for business needs	Prompt Design, Transfer Learning	Yes (Customizing models with Hugging Face)	1.0
	Generative AI Ethics	Bias, Fairness, and Security	Understand risks and mitigation strategies in Generative AI	Bias in AI, Hallucination, Security concerns	No	0.5
	Hands-On Project	Building a GenAI-powered Application	Apply learned concepts to build a small project	Using OpenAI API, LangChain, or Hugging Face	Yes (Develop a chatbot, image generator, or summarizer)	2.0