



IT Expert
TECHNOLOGY

GEN AI & AGENTIC AI

(COMPLETE COURSE)

*Learn Today,
Lead Tomorrow.*

NOW YOU CAN CODE

100% PLACEMENT ASSISTANCE



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COURSE OVERVIEW

A practical program to become job-ready in Generative AI and Agentic AI.

This practical certification course prepares students to develop AI chatbots, RAG applications, summarizers, AI assistants and agentic workflows using Python, model APIs, LangChain and LangGraph. Training focuses on hands-on coding, practical AI use cases, portfolio development and interview readiness.

Practical First

- Hands-on coding with real AI use cases
- Prompt testing and output validation
- Live application development

Industry Tools

- Python, LLM APIs and Streamlit
- RAG, FAISS and ChromaDB
- LangChain, LangGraph and GitHub

Project Portfolio

- 20 practical AI applications
- Chatbots, RAG bots and agents
- GitHub-ready documentation

Career Support

- Resume and LinkedIn guidance
- Mock interviews and technical revision
- Project presentation practice

Career Roles

- Gen AI Developer, Agentic AI Developer, RAG Developer, Prompt Engineer, AI Chatbot Developer.
- LangChain Developer, LangGraph Developer, LLM Application Developer and Python AI Developer.
- Suitable for students, freshers, graduates and professionals building AI application skills.

WHAT YOU WILL LEARN

Professional skills and practical outcomes after course completion.

1 Technical Skills

- Write effective prompts for business and software use cases.
- Build AI applications using Python and model APIs.
- Create embeddings, vector search and RAG chatbots.
- Develop LangChain chains, memory and tools.
- Design LangGraph-based agent workflows.
- Deploy simple AI applications using Streamlit.

2 Professional Skills

- Develop portfolio-ready practical projects.
- Write README files and project documentation.
- Prepare resume keywords for Gen AI roles.
- Explain workflow, model usage and outcomes.
- Practice technical questions and mock interviews.
- Present GitHub-ready AI applications confidently.

Why This Course Works

- Students code, test, debug and build applications rather than learning only theory.
- Every module contributes to practical projects useful for resumes and interviews.
- Complete workflow: Prompting, RAG, LangChain, LangGraph, AI Agents and deployment.

Learning

Practical + Project-Based

Mode

Classroom / Online / Hybrid

Projects

20 AI Applications

Support

100% Assistance

COURSE ROADMAP

Step-by-step journey from AI foundations to autonomous workflows.

1

Phase 1 | Foundation

AI, ML, DL, Gen AI concepts and Python setup.

2

Phase 2 | Prompting

Prompt design, model APIs, tokens and responses.

3

Phase 3 | Knowledge AI

Embeddings, vector databases and RAG applications.

4

Phase 4 | Agentic AI

Tools, agents, LangChain and LangGraph workflows.

5

Phase 5 | Portfolio

Projects, deployment, GitHub and interviews.

After Completing This Roadmap, Student Can

- Build Gen AI chatbots, summarizers and PDF question-answering systems.
- Use LangChain for chains, tools, memory and retrieval workflows.
- Build tool-using agents with LangGraph and controlled execution.
- Deploy AI applications and present projects with confidence.

ONE COMPLETE COURSE PLAN

One professional course plan with projects, portfolio support and 100% Placement Assistance.

GEN AI & AGENTIC AI COURSE - ALL BENEFITS INCLUDED

- Prompt Engineering, Python AI apps and model API integration.
- Embeddings, vector databases and RAG application development.
- LangChain, LangGraph, AI Agents and multi-agent workflows.
- 20 practical projects plus portfolio and deployment guidance.
- Resume, LinkedIn, GitHub and mock interview support.
- Course completion certificate and career preparation support.
- 100% Placement Assistance.

COURSE FEE DETAILS & STUDENT BENEFITS

Regular Course Fee

Rs. 60,000

Discounted Course Fee

Rs. 45,000

One-Time Payment Offer

Rs. 40,000

IMPORTANT FEE & PLACEMENT CLARIFICATIONS

- IT Expert Technology provides 100% Placement Assistance with resume guidance, mock interviews and job opportunity support.
- Placement outcome depends on student skills, attendance, project completion, interview performance and employer selection.
- All listed practical training, project and career support benefits are included in this single course plan.
- Course discounts and fee offers are valid only when recorded on the official fee receipt.

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

1 Gen AI Foundation

KEY TOPICS

- AI, ML, Deep Learning and Gen AI concepts.
- Generative AI applications and industry use cases.
- Responsible AI, limitations and output validation.
- Career roles and practical project roadmap.

PROFESSIONAL OUTCOME

- Understand Gen AI workflow and select practical use cases.

HANDS-ON LAB

- Map an AI use case.

MINI PROJECT

- AI use-case canvas.

INTERVIEW FOCUS

- AI concepts and applications.

DELIVERABLE

- Roadmap sheet.

Gen AI

Use Cases

Career

Ethics

2 Prompt Engineering

KEY TOPICS

- Zero-shot and few-shot prompting techniques.
- Role prompting, constraints and output formats.
- Prompt templates for repeatable results.
- Prompt improvement and evaluation methods.

PROFESSIONAL OUTCOME

- Write structured prompts for reliable AI outputs.

HANDS-ON LAB

- Prompt practice.

MINI PROJECT

- Prompt library.

INTERVIEW FOCUS

- Prompt patterns.

DELIVERABLE

- Template set.

Prompts

Templates

Roles

Evaluation

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

3 Python for Gen AI

KEY TOPICS

- Python setup, virtual environment and libraries.
- Working with JSON, files and environment variables.
- API requests, responses and basic error handling.
- Reusable utilities for AI applications.

PROFESSIONAL OUTCOME

- Build clean Python code structure for AI projects.

HANDS-ON LAB

- API utility script.

MINI PROJECT

- AI text tool.

INTERVIEW FOCUS

- Python and APIs.

DELIVERABLE

- Starter code.

Python

JSON

APIs

Environment

4 LLMs and Model APIs

KEY TOPICS

- LLM concepts, tokens, context and temperature.
- Model API integration concepts and safety checks.
- Chat completion workflow and response handling.
- Cost awareness and output validation.

PROFESSIONAL OUTCOME

- Connect applications with LLM APIs and control responses.

HANDS-ON LAB

- Chat API call.

MINI PROJECT

- AI chatbot.

INTERVIEW FOCUS

- Tokens and context.

DELIVERABLE

- Chat app.

LLM

Model API

Tokens

Chatbot

MODULE-WISE SYLLABUS

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5 Embeddings & Vector Databases

KEY TOPICS

- Embeddings and semantic similarity concepts.
- FAISS and ChromaDB vector storage.
- Document indexing and similarity search.
- Retrieval evaluation and result quality.

PROFESSIONAL OUTCOME

- Create semantic search for custom documents.

HANDS-ON LAB

- Vector search.

MINI PROJECT

- Notes finder.

INTERVIEW FOCUS

- Embeddings.

DELIVERABLE

- Vector index.

FAISS

ChromaDB

Search

Vectors

6 RAG Application Development

KEY TOPICS

- Document loading for PDF, TXT and DOCX.
- Chunking, embedding, retrieving and prompting.
- Context-grounded answer generation.
- PDF question-answering chatbot workflow.

PROFESSIONAL OUTCOME

- Build a custom document RAG chatbot.

HANDS-ON LAB

- Load PDF data.

MINI PROJECT

- PDF Q&A bot.

INTERVIEW FOCUS

- RAG flow.

DELIVERABLE

- RAG demo.

RAG

PDF Q&A

Chunks

Retrieval

MODULE-WISE SYLLABUS

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7 LangChain Framework

KEY TOPICS

- PromptTemplate, chains and output parsers.
- Memory, document loaders and retrievers.
- Tool integration for practical assistants.
- Building modular AI workflows.

PROFESSIONAL OUTCOME

- Develop reusable AI chains and conversation applications.

HANDS-ON LAB

- Create a chain.

MINI PROJECT

- Memory chatbot.

INTERVIEW FOCUS

- Chains and tools.

DELIVERABLE

- LangChain app.

LangChain

Memory

Tools

Chains

8 Agentic AI

KEY TOPICS

- AI agent concepts, planning and tool calling.
- Agent memory and task execution flow.
- Human-in-the-loop and validation controls.
- Use cases for research and automation.

PROFESSIONAL OUTCOME

- Design an AI agent that selects tools for tasks.

HANDS-ON LAB

- Tool agent.

MINI PROJECT

- Task assistant.

INTERVIEW FOCUS

- Agents and tools.

DELIVERABLE

- Agent demo.

Agents

Planning

Tools

Safety

MODULE-WISE SYLLABUS

Professional, readable modules with practical deliverables.

9 LangGraph & Multi-Agent Flow

KEY TOPICS

- Nodes, edges, state and conditional routing.
- Graph-based agent execution workflow.
- Multi-agent collaboration for tasks.
- Error handling and controlled workflow loops.

PROFESSIONAL OUTCOME

- Build a structured LangGraph agentic workflow.

HANDS-ON LAB

- Graph workflow.

MINI PROJECT

- Research agent.

INTERVIEW FOCUS

- LangGraph.

DELIVERABLE

- Graph demo.

LangGraph

State

Routing

Multi-Agent

10 Deployment & Portfolio

KEY TOPICS

- Streamlit deployment for AI applications.
- Flask or FastAPI overview for deployment.
- GitHub repositories, README and screenshots.
- Project presentation and interview preparation.

PROFESSIONAL OUTCOME

- Publish project demos and explain AI workflows.

HANDS-ON LAB

- Deploy a demo.

MINI PROJECT

- Portfolio app.

INTERVIEW FOCUS

- Deployment.

DELIVERABLE

- GitHub repo.

Streamlit

GitHub

README

Interview

TOOLS & TECHNOLOGIES

Modern stack for Gen AI and Agentic AI application development.

Programming

- Python
- JSON
- APIs
- VS Code
- Jupyter
- Environment

LLM Tools

- Model APIs
- Prompting
- Tokens
- Response Checks
- Evaluation
- Safety

Knowledge AI

- Embeddings
- FAISS
- ChromaDB
- RAG
- PDF Q&A
- Retrieval

Frameworks

- LangChain
- LangGraph
- Agents
- Tools
- Memory
- Routing

Application

- Streamlit
- Flask
- FastAPI
- Chatbot
- Summarizer
- Assistant

Workflow

- GitHub
- README
- Testing
- Documentation
- Portfolio
- Interview

AI Application Skill Outcome

- Build chatbots, RAG applications, summarizers, AI assistants and agent workflows.
- Use GitHub, README files and deployed demos for professional portfolio presentation.
- Explain prompting, retrieval, agents and deployment in interviews.

20 PRACTICAL PROJECTS

Portfolio-ready AI applications for resume and interview explanation - Projects 01 to 10.

Project Name	Outcome
01 AI Resume Analyzer & Job Recommendation	Resume insights and role matching
02 PDF Question Answering Chatbot using RAG	Document-based responses
03 College Admission Chatbot using Gen AI	Student inquiry assistant
04 AI Interview Preparation Assistant	Technical and HR practice
05 AI Business Email Generator	Professional content generation
06 AI Document Summarizer	Summary and key points
07 AI Meeting Notes Generator	Action-item extraction
08 AI Career Guidance Chatbot	Learning path support
09 AI Customer Support Chatbot	FAQ response automation
10 AI Code Explanation & Debugging Assistant	Developer support

Portfolio Development Support

- Students develop code, test output, prepare documentation and upload selected work to a GitHub-ready portfolio.
- Trainer provides guidance for workflow explanation, demo screenshots and interview presentation.

20 PRACTICAL PROJECTS

Advanced AI applications and agentic workflows - Projects 11 to 20.

Project Name	Outcome
11 AI YouTube Video Summarizer	Content summary workflow
12 AI Research Paper Summarizer	Academic assistant
13 AI Medical Report Explanation Assistant	Simplified explanation
14 AI Legal Document Assistant	Document insight support
15 AI Voice-Based Personal Assistant	Speech-enabled assistant
16 AI Invoice and Bill Data Extraction	Structured extraction
17 AI Image Caption Generator	Multimodal text output
18 AI Product Description Generator	E-commerce content
19 Agentic AI Research Assistant using LangGraph	Tool-based research flow
20 Multi-Agent Task Automation System	Coordinated AI agents

Project Delivery Method

Concept

Use case

Coding

Build features

Testing

Debug outputs

Portfolio

README + demo

STUDENT BENEFITS & CAREER ROLES

Professional support beyond classroom learning.

Student Benefits

- Step-by-step practical coding sessions.
- Every concept connected to a mini project.
- Doubt-solving during implementation.
- Project documentation and README guidance.
- GitHub and LinkedIn profile support.
- Mock interviews and technical questions.

Portfolio Promise

- Students develop Gen AI and Agentic AI applications for resume presentation.
- Selected projects are prepared for GitHub showcase and demonstrations.
- Training supports academic submissions and interview discussion.
- Final projects demonstrate RAG, agents and deployment skills.

Career Opportunities

- Gen AI Developer, Agentic AI Developer, Prompt Engineer and RAG Developer.
- LangChain Developer, LangGraph Developer, AI Chatbot Developer and LLM Application Developer.
- Python AI Developer, AI Intern and Data Science Intern roles.

Practical Course Commitment

- IT Expert Technology guides students through practical sessions and project implementation across the Gen AI and Agentic AI syllabus.

PLACEMENT ASSISTANCE & ADMISSION

Career support process, eligibility requirements and admission guidance.

100% PLACEMENT ASSISTANCE INCLUDES

- Resume preparation with AI project keywords.
- LinkedIn and GitHub portfolio guidance.
- Mock interviews and technical question practice.
- Job opportunity sharing and interview coordination.
- AI project presentation and demo guidance.

STUDENT RESPONSIBILITIES

- Maintain regular attendance or approved make-up sessions.
- Complete assignments and all practical projects.
- Prepare updated resume, GitHub portfolio and documentation.
- Attend suitable interview opportunities shared by the institute.
- Maintain professional communication and accurate details.

Placement Outcome Note

Placement assistance supports students in career preparation and interview opportunities. Final selection depends on student performance, eligibility and employer requirements.

Admission Process

- Counselling and single course plan explanation; admission form and fee confirmation.
- Official receipt generation, batch allocation and software setup guidance.
- Training, projects, portfolio preparation, certification and placement assistance process.

JOIN GEN AI & AGENTIC AI COURSE

Start learning with practical AI training and project-based mentoring

ADMISSIONS OPEN



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Course Tracks

Prompt | RAG | Agents

Career Support

100% Placement Assistance

Portfolio

20 Projects + Demos

BOOK YOUR COUNSELLING SESSION TODAY

ONE COMPLETE COURSE PLAN | 100% PLACEMENT ASSISTANCE

Brochure Note: Final course duration, batch timing, fee plan, certification details, placement assistance details and special offers will be confirmed during admission counselling and on the official fee receipt.